

***Scripps Log* Obituaries**

The following obituaries of Scripps Institution of Oceanography graduate students, faculty, and staff have been compiled from *The Scripps Log*, 1999-2013 located at <http://scrippsnews.ucsd.edu/log/archive.cfm>. *The Scripps Log* ceased publication with volume 49, no. 24 (June 14-21, 2013). The entries have been annotated with full names, vital dates, and degrees earned for research at Scripps Institution of Oceanography.

Earlier editions of *The Scripps Log* are located in the Scripps Archives as the SIO Information Exchange Bulletin and SIO Log, 1966-2008, collection 2011-41. More biographical information about Scripps students, faculty, and staff can be found in the Scripps Archives in the Biographical Information Files, collection 2011-49; the SIO Biographical Files, 1903-1980, collection 81-17; and *American Men and Women of Science*, Q141.A45.

Anderson, John C. (1971-2002)

John Anderson, husband of former SIO graduate student Carolyn Mockett, died Saturday, February 2, after an afternoon of surfing in his beloved Pacific Ocean. He suffered an unexpected heart attack. John was 30 years old. In lieu of flowers, the family requests that donations in John's memory be directed to the American Heart Association, (800) 242-8721. *The Scripps Log* February 8 - February 15, 2002 vol. 39 no. 5

Anderson, Lloyd James (1917-2008)

M.A. 1942, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

LLOYD ANDERSON - It is with sadness that I announce the passing of my father, Lloyd Anderson, on March 6 at the age of 90 years. His name will not be familiar to many oceanographers; however, his roots at Scripps remained very important to him. Dad came to work for Roger Revelle after graduating from UCLA in 1939. His work in Dr. Revelle's lab using a potentiometric method for determining the chloride and sulfate concentration in seawater became a master's thesis, which he received in 1942. By then, the U.S. was involved in World War II and Dr. Revelle recruited Dad to be part of a team of scientists studying the new field of radar wave propagation at the U.S. Navy Radio and Sound Lab on Point Loma. Their work was vital to the detection of enemy ships and aircraft and changed the course of Dad's professional career. After the war, Dad continued to work at the Navy Electronics Lab and then at a spin-off research lab until 1961 when he moved his wife Catherine and their three daughters to Buffalo, New York, to work at Cornell Aeronautical Laboratory. Throughout the Cold War Dad was awarded contracts from various agencies in the Defense Department to determine the capabilities of Soviet ballistic missiles and spy satellites. Growing up, it was not uncommon to hear Dad getting up in the wee hours in order to drive out to the radar installation to track and analyze the signature of a passing satellite. Of course, due to the requirements of his security clearance, Dad was not allowed to speak of his work except in the most general of terms. At one point, he determined that the Soviets were using a radar-absorbing material on their re-entry vehicles, a fact that was later confirmed by the recovery of a Soviet missile from the sea floor. The analytical skills developed by Dad and his colleagues at CAL proved to be valuable to the Defense Department during a very tense period in history. Dad retired in 1982 and he and Catherine returned to Carlsbad, California, to be close to their daughters and the California sunshine. He spoke fondly of his early years at Scripps and attended the Centennial celebration

in 2003. His family and friends will certainly miss him. (Gretchen Robertson, garobertson@ucsd.edu, x41826). *The Scripps Log* March 21 - March 28, 2008 vol. 44 no. 12

Anderson, Victor Charles (1922-2012)

M.A. 1950 Physics, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1953 Physics Scripps Institution of Oceanography (UC Los Angeles)

VICTOR C. ANDERSON – Victor C. Anderson, a Scripps research oceanographer whose anonymous donation with his wife established the Victor Alderson Chair of Applied Ocean Science, died Nov. 3 at his home. He was 90. Anderson's affiliation with Scripps extended more than 40 years. He joined Scripps as a student in 1947. His scientific research interests included acoustic signal processing, underwater acoustics, and ocean engineering. Anderson was born to missionary parents in Shanghai, China, in 1922. He enrolled at UCLA as a graduate student in physics in 1946. After a year in residence at UCLA, he joined the Marine Physical Laboratory (MPL) at Scripps. His research at MPL in the study of the deep scattering layer completed the requirements for a Ph.D., which he received in 1953. Anderson then had a postdoctoral fellowship at the Acoustics Research Laboratory at Harvard University. While at Harvard, he designed and developed a digital time compression technique (DEL TIC) for application to acoustic signal processing. Anderson returned to MPL in 1955 and continued his research in the field of acoustical signal processing and ocean engineering. Topics of his research included the spatial and temporal distribution of acoustic ambient noise in the ocean and the remote underwater manipulator (RUM). In addition, he invented the digital multibeam steering system (DIMUS), a computationally efficient approach for preferentially listening in many directions at once. It is used in sonar systems on U.S. Navy ships and submarines. Anderson served as deputy director of MPL from 1976 until his retirement in 1989. Anderson was the recipient of the National Security Industrial Association's 1986 Admiral Charles B. Martell Technical Excellence Award for his work in the development of the DIMUS system. He also received the Navy's 1976 Distinguished Public Service Award. A fellow of the Acoustical Society of America, Dr. Anderson had also been a senior member of the Institute of Electrical and Electronic Engineers and a member of the National Research Council Committee on Navy Publications. Anderson and wife Anne established the Alderson Chair in 1982 with a \$250,000 gift through her company, InterOcean Industries, Inc. The holder of the chair is Scripps Professor of Climate and Atmospheric Science Veerabhadran Ramanathan, who credits the endowment with helping to support many of his research projects over many years. The chair was named for Anne Anderson's grandfather, Victor Alderson, who was himself a noted scientist descended from the original Mayflower pilgrims. He served twice as president of the Colorado School of Mines. Alderson had settled in La Jolla after his retirement and lived there until his death in 1946. A memorial service for Victor Anderson is scheduled for Friday, Nov. 16 at 11 a.m. at Point Loma Community Presbyterian Church, 2128 Chatsworth Blvd. San Diego, Calif. 92107. A reception will follow. Directions can be found at www.pointlomachurch.org/welcome/map. In lieu of flowers, please consider making a contribution in memory of Victor Anderson to a charity of your choice. (Scripps Communications Office, scrippsnews@ucsd.edu, x43624). *The Scripps Log* November 9-16, 2012 vol. 48 no. 45

Andres, Gail (1945-2001)

GAIL ANDRES - It is with great sadness that I write that Gail Andres, former director of Academic Personnel at Scripps, passed away in her sleep on February 1, 2011. Gail began her career at UCSD in 1971 in Applied Mechanics and Engineering Sciences. She left UCSD from 1974-1981 to raise her only child, Elizabeth, and returned to UCSD to work in the Biology Department from 1981 to 1984 and at UCSD Academic Affairs from 1984 to 1991. She came to Scripps in 1991 and directed Scripps' Academic Affairs Office until her retirement on January 4, 2006. She accrued over 27 years of service at UCSD, and at Scripps she served under two directors and four associate deans. "Gail was one of the unsung heroes who make Scripps Institution of Oceanography such a great place," said former Scripps director Charlie Kennel, adding that Gail was courteous and kind to everyone, and that she was a mainstay of our academic personnel system. Gail was a trusted colleague and advisor to many people. As an expert analyst she did much to maintain the rigor of the academic review process at Scripps. When Gail hired me in 1999, she told me that she would teach me everything I needed to know about academic personnel. She was an excellent mentor and always shared her knowledge and information freely. It is because of her guidance and mentoring that I was able to learn and grow in my own career. She was a great boss who always made me feel that she cared about me too. Gail enjoyed many things, especially travel and dining out. Even though she retired over five years ago, we maintained our routine of having lunch together regularly. One of our favorite places is Italy and we'd reminisce about leisurely days strolling around an Italian town while eating gelato. We tried to capture that feeling by having gelato in La Jolla, but alas, it never quite felt the same. A Celebration of Gail's Life is planned for Saturday, February 19, 4-6 p.m., at the Martin Johnson House (T-29). The family is planning to buy a memorial plaque for placement somewhere at UCSD. If you would like to contribute, a donation basket will be available at the service. If you would like Gail's daughter's contact information, I will be happy to provide it. (Lil Dockery, ldockery@ucsd.edu, x20283). *The Scripps Log February 11 - February 18, 2011 vol. 47 no. 6*

Arnold, James Richard (1923-2012)

JIM ARNOLD - James R. Arnold, founding chairman of UC San Diego's chemistry department and first director of the California Space Institute whose contributions to science spanned the study of cosmic rays to the future of manned space flight, died Friday, January 6. He was 88. A longtime consultant to NASA, Arnold helped to set science priorities for missions, including the Apollo flights to the moon. He first served on a NASA committee in 1959, just three months after the space agency was established. Arnold helped to establish the national lunar sample research program and fostered its remarkable contributions to planetary science over the decades since Apollo 11. Arnold was in Houston for the arrival of the first lunar samples and carried some of them back to his laboratory at UC San Diego where his group studied them. Over more than two decades, Arnold traced the history of moon rocks' bombardment by cosmic rays and extended our record of the energy output of the Sun by millions of years. He established long and fruitful partnerships with other scientists, including Devendra Lal, an emeritus professor at Scripps Institution of Oceanography. "Jim always had intelligent ideas. It was one of my nicest collaborations," Lal said. "He was my friend for 50 years." In 1970, NASA recognized Arnold's work with an "Exceptional Scientific Achievement" medal. Arnold also received the Department of Energy's E.O. Lawrence Award in chemistry and metallurgy. Arnold founded the California

Space Institute in 1979 to foster innovation in space research. As director for the first 10 years, he identified promising young scientists and encouraged their risk-taking work. Arnold is survived by his wife Louise Arnold, and their sons Bob, Ted, and Ken, and their families. A memorial service for the university community will be held at a future date. (Susan Brown, sdbrown@ucsd.edu). *The Scripps Log January 20-January 27, 2012 vol. 48 no. 3*

Arrhenius, Eugenie de Hevesy (1926-2009)

JENNY ARRHENIUS - The recent passing of Jenny Arrhenius, wife of Gustaf Arrhenius, was a big loss to the scientific community of Scripps Oceanography. Jenny always welcomed people from other cultures and helped them to make the best of their stay at Scripps. Being the daughter of a renowned chemist, George de Hevesy, Nobel Laureate (Chemistry, 1943), she knew the importance of complementing scientific expertise with the more mundane aspects of everyday life. Jenny spoke at least five languages, which made it easy for her to converse with scientists from different countries. Allow me to tell a few incidences from my life since my late wife, Aruna Lal, and I lost a great adviser and a guide. When we first arrived at Scripps in 1958, we knew little of the etiquettes followed in day-to-day life in the U.S. At an appreciable cost of time, Jenny, who was a very busy person, taught us these in a very friendly manner, never making us feel ignorant. To survive in the U.S., I needed a driver's license. Without even asking me if I knew how to drive, Jenny asked me to drive her Mercedes for a test; this was indeed the most nervous time for me, far more than the fear of meeting the driving test conductor! Jenny often invited us to their home for dinner. This involved extra work for Jenny because Aruna and I were vegetarians. Meetings organized by Jenny brought us closer to Gustaf, who gave us lots of technical advice on the scientific projects I was involved in. In several scientific experiments which became successful, Gustaf's contributions were very significant. Such incidences occurred in the lives of several scientists arriving to Scripps, young and senior, where both Jenny and Gustaf played very important roles in making them comfortable and at home at Scripps. The Scripps community offers heartfelt condolences to Gustaf's family members, and especially to Gustaf, for whom the loss is the greatest. Gustaf and Jenny were inseparable; they did everything together, keeping in mind the overall interests of the Scripps scientific community. (Devendra Lal, dlal@ucsd.edu, x42134). *The Scripps Log March 13 - March 20, 2009 vol. 45 no. 10*

Arsenault, Albert (1926-2004)

It is with deep sadness that I inform the Scripps community that our dear friend and shipmate, Captain Al Arsenault, passed away Tuesday, May 11. Born in Massachusetts, Al and his family moved to Canada when he was a youngster. It was here he developed his great love for the sea while fishing with his father and grandfather in the Atlantic Ocean fishing grounds. At 17 he joined the U.S. Navy during World War II to serve his country. He continued to serve until 1964 when he retired as a Chief Quartermaster. When a job running ferries between San Diego and Coronado was scuttled by the new bridge across the bay, Al applied and was hired by Marine Facilities in 1964, as an Ordinary Seaman to sail on R/V ARGO. He immediately demonstrated the qualities that made him a legend and 2 months later ARGO's Master reported "This man has shown outstanding and exceptional ability in all respects. Recommend he be promoted to Seaman at your first opportunity." Al would continue to receive glowing reports of his performance throughout his time at Scripps. In September 1976 he was promoted to Senior Captain, the position he sailed in until his final trip in the fall of 2000. During those 36 years he sailed aboard every ship operated by Scripps and as Captain of most of them. It did not matter

what ship he sailed, he just loved being on the ocean and visiting far away places. As much as he loved the sea, Al loved his wife and family more. John Manion and I had the chance to visit with his wife Helena, daughters, sons and grandchildren at his internment at Riverside National Cemetery on a beautiful day last Friday. Deep and abiding love was evident. Al passed on his vast knowledge of the sea to all who sailed with him. He was also a great story teller and that he passed on to his children and grandchildren and they honored him by sharing wonderful memories. We will miss Al's friendship and quiet counsel. Everyone that knows him has at least one Captain Al story. Pass these stories on -- I know he would like that. (Captain Tom Althouse, Marine Superintendent). *The Scripps Log* May 21 - May 28, 2004 vol. 41 no. 20

Arthur, David Kilgore (1923-2004)

M.A. 1951, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1957, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

ARTHUR - Alumnus David K. Arthur died October 28. He received his Ph.D. in 1957 from SIO, and was an early user of scuba for his research (and sometimes for his dinner). Born in Los Angeles on February 3, 1923, Dave served in World War II in the Marine Corps. After receiving his Ph.D., he ran a family-owned business from 1957 to 1970, then became a senior research associate at Southwest Fisheries Center on the SIO campus, where he published significant papers on larval fish ecology. In 1977, he went to the South Australian Department of Fisheries in Adelaide, where he worked with eels in aquaculture until 1984. He then retired to Escondido. Dave is survived by his wife, Virginia, a daughter and two sons. A memorial will be on December 28, from 2 to 4 p.m., at the Martin Johnson House. The family suggests donations in Dave's memory to support the SIO Collections. Please send contributions: attn: Edwina Riblet, 9500 Gilman Drive, 0210, La Jolla, CA 92093. (Betty Shor, gshor@ucsd.edu). *The Scripps Log* December 3 - 10, 2004 vol. 41 no. 48

Ayala-Castañares, Agustín (1925-2005)

Dr. Agustín Ayala-Castañares, a leading figure in ocean sciences in Mexico, died on November 24 at age 80 following a long illness. His undergraduate and doctoral degrees (biology) from the National Autonomous University of Mexico (UNAM) bracketed his MS degree (geology) from Stanford. He became an associate investigator at Scripps in 1968, an outgrowth of his collaboration with the late F.B. Phleger on studies of Mexican coastal lagoons. Dr. Ayala became a member of the Mexican Academy of Sciences (AMC) in 1964, serving as its vice president 1974-75. He led the growth of the Institute of Marine and Limnological Sciences (ICMyL) at UNAM and was its director from 1981-87. He was president of the Intergovernmental Oceanographic Commission from 1977-1982, in which capacity he led IOC participation in the international conferences that resulted in the UN Convention on the Law of the Sea. He and I were, respectively, the Mexican and US co-chairs of a 1999 joint AMC-NRC study of opportunities and requirements for improved US-Mexico cooperation in ocean sciences. Anyone wishing to send a message of sympathy or remembrance should do so via one of his close colleagues at ICMYL, whose name and contact information I will provide on request. (Bob Knox). *The Scripps Log* December 16 - 23, 2005 vol. 41 no. 50

Bacastow, Robert Bruce (1930-2007)

I'm sorry to report that Scripps researcher Dr. Robert (Bob) B. Bacastow passed away on March 8 after a long battle with cancer. Bob received his B.S. and M.S. in chemical engineering at MIT

in 1954. He later attended UC Berkeley, where he did his graduate work on particle physics under Emilio Segre, a 1959 Nobel laureate (who, in turn, was a doctoral student with Enrico Fermi), and received his Ph.D. in 1963. In the mid 1960s Bob worked at UC Riverside, then moved to the physics department at UCSD. In 1971, he joined the Carbon Dioxide Research Group (CDRG), headed by Charles Keeling. He worked closely with Keeling and others, applying his expertise in advanced mathematics to the statistical analysis and mathematical modeling of atmospheric carbon dioxide and the global carbon cycle on a large range of platforms. Bob authored and co-authored numerous scientific articles, book chapters, and reports on the subject. Notably, in the 1970s, during one of his visits to the old Scripps Library on the site where Pawka Green is now located, Bob ran across a new book (perhaps *Climate* by H.H. Lamb) that displayed the time series of the Southern Oscillation (SO), and he immediately recognized that it resembled variations in the atmospheric carbon dioxide data series that he had been working with daily. Though the time series were relatively short at the time, he was able to make a convincing case, for the first time, for a relationship between the SO and CO₂. This work, which he published in 1976 in the journal *Nature*, stands as an important contribution toward unraveling the multiple causes for variations of atmospheric CO₂ that has improved our understanding of the carbon cycle and our ability to predict future changes in this greenhouse gas. Outside of science, Bob served in the Air Force and was an avid motorcycle rider. He raced in the Baja 500, and appeared on the starting line in the 1971 movie *On Any Sunday*, starring Steve McQueen. As Bob's wife Wanda tells it, he enjoyed the whirlwind of kids, kids' friends, cats, dogs, and horses that became a large part of his life. Bob is survived by his wife Wanda, four children, Eddie, Kathleen, Robert, and Rebecca, and seven grandchildren. A memorial service will be held at 6 p.m. on Monday, March 19, at the Solana Beach Presbyterian Church, at 120 Stevens Ave. All are invited to attend. (Steve Piper, 44230 ext 15). *The Scripps Log March 16 - 23, 2007 vol. 43 no. 11*

Baldwin, Christine (1922-2004)

Christine Baldwin, a 30-year staff member, died June 18, 2004, at age 82. She came to the university as a draftsman in the University of California Division of War Research (UCDWR). Joining the Marine Physical Laboratory shortly after its formation in 1946, Chris quickly became its business manager. She established a tradition of helpful and innovative support for the laboratory's people and programs, was a mentor to younger colleagues and a mainstay of MPL directors, and managed the business office until her retirement in 1977. Many of her contributions are still recognized today. Following her retirement, she and her husband, Dave, became active participants in the UCSD Retirement Association, and took part in a wide range of association activities. Chris was a board member and served a two-year term as the secretary. She and Dave thoroughly enjoyed their lives both before and after retirement. Chris was a gracious lady we will never forget for her friendship and contributions to MPL/SIO. We will miss her dearly. (Pat Jordan/Fred Spiess). *The Scripps Log June 25 - July 2, 2004 vol. 41 no. 25*

Baldwin, Roberta (1940-2006)

On 2 February 2006, we all lost a wonderful friend, superb colleague, and a great human being. Roberta Baldwin was a sea-going oceanographer, who more often than not would rather be at sea than ashore. She served as the energetic nucleus for our cohesive ocean going laboratory for thirty years instilling enthusiasm, creativity, warmth and motherly guidance to everyone with whom she interacted. From supervising the loading of unwieldy equipment to negotiating boxes

often too heavy for her to lift, she would always be there in the thick of battle, trying to organize yet another scientific cruise before the sailing deadline. A talented chemist, biologist, meticulous editor, well respected author, and creative equipment designer, Roberta's true passion was driving the forklift in all loading and offloading operations. Roberta was an oceanographer in the true sense of the word, experiencing the sea and all of its mysteries first hand whether from the deck of a ship or being closely confined within the chilled hull of *Alvin*, peering out in disbelief at the dark, wondrous deep-sea realm surrounding her. She nurtured many graduate students and colleagues to maturity with her contagious curiosity, uncompromising integrity, and youthful enthusiasm. Roberta treated everyone she encountered with love, respect and understanding, traits that endeared her to all who were fortunate to have known her. Observational oceanography lost a great colleague today but the name Roberta Baldwin is indelibly etched in the minds of all those who sailed and worked with her, a legacy that will never be equaled. Roberta is now sailing on a much vaster ocean seeking answers to questions in a much greater realm of the unknown. A celebration of her life will be held at the Martin Johnson House at Scripps Institution of Oceanography, on Sunday, March 12, at 12 noon. In lieu of flowers, please consider The Al Musella Brain Tumor Foundation, <http://virtualtrials.org/musella.cfm> (Ken Smith). *The Scripps Log February 10 - 17, 2006 vol. 42 no.6*

Barham, Eric G. (1919-2002)

Eric Barham was born November 4, 1919 and died recently on July 1, 2002. He was a pioneer in biological research from deep submergence research vehicles, an internationally recognized authority on the deep scattering layer, and the coordinator for studies of tuna-porpoise interactions in the eastern Pacific. Dr. Barham received his B.A. degree from San Diego State in 1949 where he was later on their faculty. He earned his Ph.D. from Stanford University in 1957 with Don Abbott and Rolf Bolin, where he conducted research on the ecology of sonic scattering layers. He then developed a program on bio-acoustical research at the Naval Electronic Laboratory in San Diego, where he headed up the Biology Branch. Dr. Barham is best known for his many new and interesting observations from submersibles. He made over 64 dives, including *Trieste* (25), *Deepstar 4000* (35), *Alvin* (2), the French bathyscaphe, *Archimede* (one in the Puerto Rico Trench, the deepest location in the Atlantic Ocean), and Cousteau's Diving Saucer. He is nationally and internationally recognized for his many contributions to the biology and descriptions of mesopelagic and deep sea animals, and his research on sonic scattering layers that resulted from these dives. He was a keen observer and a very sociable and generous scientist. In the late 1970s, Dr. Barham transferred to the Southwest Fisheries Science Center where he was in charge of studies on the "tuna porpoise problem" in the eastern tropical Pacific. This included convincing the captains of tuna purse seiners to take observers aboard, and later perform systematic aerial surveys of dolphin populations. He was also involved in a census of bottlenose dolphins along the Texas coast. Dr. Barham was active in the American Society of Limnology and Oceanography, AAAS, Sigma Xi, and Western Society of Naturalists. (William Percy and Waldo Wakefield). *The Scripps Log August 30 - September 6, 2002 vol. 34*

Bascom, Willard Newell (1916-2000)

We are very sad to report the death of ocean engineer, diver, and ocean adventurer Willard N. Bascom at his La Jolla home on September 20. He was born in New York City in 1916. A maverick innovator, he became a prominent ocean engineer. He began work in his teens as a "mucker" on the Delaware Aqueduct tunnel during the Great Depression. He then studied mining

at the Colorado School of Mines. His career in ocean science began in 1945 when he joined John Isaacs for studies of waves and beaches first at Berkeley and later at Scripps Institution of Oceanography. He lived in Monterey after the war and his friends included John Steinbeck and Ed Ricketts. He was a member of Isaacs' scientific party during the 1946 Bikini Atoll atomic bomb test. Bascom pioneered the use of SCUBA for scientific diving on SIO's Capricorn Expedition. In 1954, he joined the staff at NSF where he organized the first phase of Project Mohole. He was president of Ocean Science and Engineering, Inc. and Director of the Southern California Coastal Water Research Project. Passionate about art as well as science, he studied poetry, music, painting, cinematography, and underwater archeology. The author of several books, his final monograph on the salvage of the sunken treasure of the Civil War-era sidewheeler *Brother Jonathan* is in press. Handsome, boyish and active to the end of his life, he is survived by his daughter Anitra Worth, brother Robert, grandchildren, and his great friend Suzanne Hagar. (Deborah Day and Joe Hlebica). *The Scripps Log* September 22 - September 29, 2000 vol. 37 no. 38

Bates, Elizabeth Ann (1947-2003)

It is with a very deep sadness that we write to tell you of the death of Elizabeth Bates. Liz passed away Saturday evening, December 13, after a courageous year-long battle with pancreatic cancer. At the end, Liz was at home with her husband George and her daughter Julia, other close family members, and all surrounded by many friends in body and spirit. Over a three-decade career, Liz established herself as a world leader in a number of fields -- child development, language acquisition, aphasia research, cross-linguistic research, and adult psycholinguistics. She was passionate about science and about ideas. Fearless and bold in following these ideas wherever they took her, and unafraid of controversy, Liz inspired many to follow in her footsteps. But to her many friends around the world, Liz will also be remembered for her enormous generosity and joie de vivre. She was tremendously loyal and supportive to her students, and took great joy in their accomplishments. She was unstinting in her efforts to promote the careers of friends and colleagues, and played a key role in building bridges with research groups around the world. Liz was larger than life, and was a large part of many people's lives. We shall miss her terribly. The family requests that in lieu of flowers, contributions be sent to the Elizabeth Bates Graduate Research Fund, c/o Center for Research in Language, 0526; University of California, San Diego; La Jolla, California 92093-0526. In keeping with Liz's deep commitment to supporting students, this fund will be used to assist graduate students in their research, emphasizing the many areas in which Liz herself made pioneering contributions. *The Scripps Log* December 19, 2003 - January 9, 2004 vol. 40. No. 48

Beardsley, Nell (1920-2004)

Nell Beardsley, 84, died Friday, June 18, 2004, at her home. Born April 29, 1920, in Geneva, Kentucky, Nell lived in Encinitas for 29 years. She retired after 27 years as an office administrator at Scripps Institution of Oceanography, working in Academic Personnel. Nell is survived by her husband, Arthur F. Beardsley of Encinitas; daughter Barbara A. Wilhelm of Morrison, Colorado; sister Eva Tompkins of Henderson, Kentucky; grandchildren Jeffrey, Michelle and Bradley; and five great-grandchildren. A memorial service is scheduled for 1:30 p.m., Saturday, July 17, at Pacific View Baptist Church. Private cremation and interment is planned. The family suggests donations to Scripps Stevens Cancer Center, Scripps Memorial Hospital, La Jolla, in care of John Trombold, 9888 Genesee Ave., La Jolla, CA 92027, or Pacific

View Baptist Church, 845 Santa Fe Drive, Encinitas, CA 92024-3842, or Vitas Hospice, 9655 Granite Ridge Drive, Suite 300, San Diego, CA 92123. *The Scripps Log July 16 - July 23, vol. 41, no. 28*

Bentley, Shirley Anne MacFall (1936-2005)

BENTLEY - Shirley Anne Bentley, born August 29, 1936, passed away November 14, at Scripps Hospital from congestive heart failure after a three-year battle with cancer. Shirley had been an employee of SIO for many years prior to retiring in 1994. She is survived by two sons, Theodore Beattie of San Diego, CA and Shawn (Dawn) Bentley of St. Paul, MN and two grandsons, A. Alexander and Jack Bentley also of St. Paul. Shirley was a loving and adoring mother and grandmother who was very proud of the accomplishments of her family. A memorial service will be held in August 2006 to honor Shirley and her beloved husband Harry Bentley at Fort Rosecrans. In lieu of flowers, the family asks that donations be made to the American Cancer Society in her honor. *The Scripps Log December 2 - December 9, 2005 vol. 41 no. 48*

Bentor, Yaacov (1910-2002)

BENTOR - It is with great sadness that we report that Dr. Yaacov Bentor, Scripps research geologist emeritus, died Tuesday at his home in La Jolla. He had been in ill health for some time. Dr. Bentor was one of the world's experts on the geology of the Middle East. He worked extensively on the petrology and tectonic evolution of the Precambrian crust in the Sinai Peninsula, and published widely on many aspect of Middle Eastern geology. He had a long-term interest in the possible geological origin of many events chronicled in myth and history, and had written on geological events in the Bible. At the time of his death he was working on a book tracing the explanation of natural events, mainly geological, from early mythological times to the beginning of modern science. He retired from the Hebrew University in Jerusalem in 1977 and had been associated with Scripps ever since. Throughout the decades, he was highly honored, and he received the Israel Prize for Natural Science (1945), the Prize Israel Ministry Development (1964), and the Freund Prize of the Israel Geological Society (1986). He is survived by his wife, Scripps's Dr. Miriam Kastner, professor of geology. Dr. Bentor will be buried Friday in Israel. (Scripps Communications, x43624). *The Scripps Log November 1 - 8, 2003 vol. 39 no. 43*

Blackburn, Maurice (1915-2012)

MAURICE BLACKBURN - Maurice Blackburn, long-time Friday Harbor resident, died March 30, 2012, in El Cerrito, CA. He was born in Melbourne, Victoria, Australia and was educated at the University of Melbourne, where he graduated as Bachelor of Science in 1936. Later degrees, from the same university, were Master of Science (1937) and Doctor of Science (1952). A childhood interest in natural history caused Blackburn to follow science, and an undergraduate collecting trip to the Great Barrier Reef led him into marine biology. In 1937 he joined the newly established Division of Fisheries of the Council for Scientific and Industrial Research, later called Commonwealth Scientific and Industrial Research Organization. This was the first institution for organized marine science in Australia. He remained with the Division for over 18 years, working in Melbourne, Sydney, and Hobart, becoming Principal Research Officer. In 1956, Maurice Blackburn became a professor of zoology at the University of Hawaii in Honolulu. The next year he moved to California to become Program Director of the newly formed Scripps Tuna Oceanography Research Program, associated with UC San Diego. After

1971 he was associated with the Coastal Upwelling Ecosystems Analysis program, operated by a multidisciplinary group of marine scientists from several universities. He became a naturalized citizen of the United States in 1966. He retired from the University of California in 1977 as research biologist. He considered himself to have been, successively, a marine biologist, fishery biologist, fishery oceanographer, and biological oceanographer. He is survived by his wife of 46 years, Anne Blackburn, a sister, seven children, and several grandchildren and great-grandchildren. (Anne Blackburn, amb242@cornell.edu). *The Scripps Log August 10-17, 2012 vol. 48 no. 32*

Blattenberger, James R. (1929-2000)

Jim Blattenberger, SIO's facility manager for 22 years, died last Friday. Jim was instrumental in managing several important projects on campus. Some of those included the Center for Coastal Studies Addition, Scripps Pier, Sverdrup Hall HVAC & Electrical Renovation, La Jolla Shores Pipeline, IGPP Unit II, the Scripps Crossing, and the Handicapped Access Program. On Saturday, November 11, there will be a service at Greenwood Mortuary, I-805 & Imperial Avenue at 2 p.m. In lieu of flowers, the family suggests donations to the American Heart Association. Cards may be sent to his wife Jane DiTullio, c/o Liz Floyd, 10028 Branford Road, San Diego, CA 92124. *The Scripps Log November 10 - November 17, 2000 vol. 37 no. 45*

Boyd, Timothy John (1958-2013)

Ph.D. 1989 Oceanography, Scripps Institution of Oceanography (UC San Diego)

TIM BOYD - With great sorrow, we report the passing of Dr. Tim Boyd, who was struck by lightning while walking near his home in Port Appin, Argyll, Scotland. Tim got his Ph.D. in oceanography at Scripps Oceanography in 1989, having received a B.A. in physics at Carleton College. Tim's journey through academia took him to University of Washington, Oregon State University, and finally to the Scottish Marine Institute where he was a Principal Investigator in polar physical oceanography. Tim studied internal waves and turbulence, and found his calling in polar oceanography after spending time on submarines making foundational observations of the Arctic Ocean. Tim was an avid outdoorsman, and many of his friends have fond memories of adventures backpacking, rock climbing, and mountaineering. He was warm and funny, and had a knack for making friends readily. Tim was a giving and easygoing colleague who excelled in settings that required teamwork and was often the instigator of whatever adventures or hijinks were to happen next. As a lowly wog on the R/V Melville in 1984, Tim was able to steal the Jolly Roger from the bridge (right under the shellbacks' noses), to hoist it proudly while entertaining Neptune's Court. For this transgression he was duly punished by the Court. Tim will be greatly missed by all who knew him. Tim is survived by his wife, Cat, and his two daughters, Charlotte and Ellie. A memorial website has been set up at <http://tim-boyd.tumblr.com>, where friends and colleagues may share condolences and find forthcoming information on where to send memorial gifts. (Dan Rudnick, drudnick@ucsd.edu; Bob Knox, rknox@ucsd.edu; Myrl Hendershott, mhendershott@ucsd.edu). *The Scripps Log February 1-8, 2013 vol. 49 no. 5*

Bradner, Hugh (1915-2008)

HUGH BRADNER - Hugh Bradner, renowned physicist and professor emeritus at Scripps Institution of Oceanography, died on May 5, in San Diego after a prolonged illness. He was 92 years old. Bradner's scientific career incorporated both science and ocean exploration to design many notable ocean technologies, including the first neoprene wetsuit. He has been affiliated

with Scripps since 1961 and was professor emeritus at IGPP. "He was an adventurous man who enjoyed traveling," said Walter Munk, professor emeritus and director of IGPP during Bradner's tenure at Scripps. "He built a successful career by combining his geophysical work with his South Pacific adventures." Bradner collaborated with scientific divers at Scripps who were experimenting with the new SCUBA regulator invented by Jacques Cousteau and Emile Gagnan. Scripps divers first tested his wet suit designs at their SCUBA training classes held in the pool of the La Jolla Beach and Tennis Club. "Brad's neoprene wetsuit was a tremendous contribution to scientific diving," said Jim Stewart, diving officer emeritus at Scripps. "He was a great guy and a lot of fun to work with." Bradner enjoyed life to the fullest. He was an avid outdoorsman hiking in the Sierra Nevada Mountains, swimming in the La Jolla Rough Water Swim, and traveling all over the world to enjoy the oceans. He turned scientific inquiry into fun. He was a true teacher. His greatest joy was to watch as he guided students, family, and friends to the discovery of something new. He was a painter, a photographer, a jeweler - a creator of new visions, be they intellectual or artistic. The family requests gifts in his memory to The Hugh and Marjorie Bradner Endowment at Scripps Oceanography. A memorial service for Hugh and Marjorie Bradner will be held at the UCSD Faculty Club on Sunday, May 25, at 3 p.m. (Scripps Communications, scrippsnews@ucsd.edu, x3624). *The Scripps Log* May 9 - May 16, 2008 vol. 44 no. 19

Bradner, Marjorie Hall (1918-2008)

Marjorie Hall Bradner died in Encinitas on April 10. Marge and her husband, Hugh Bradner, were members of the University of California community for more than fifty years, and their family has been associated with the University of California for more than 100 years. After graduating from UC Berkeley, Marge worked as a secretary at Los Alamos Laboratory where she met Hugh in 1943. J. Robert Oppenheimer was at their wedding at Los Alamos, but security restrictions prevented their parents from attending. In 1946 they moved to Berkeley when Hugh joined the Physics Department at UC Berkeley, and Marge worked for the dean of women. Marge accompanied her husband on his occasional research visits to Scripps in the 1950s. It was on one of those visits that Hugh Bradner began experimenting with neoprene as material for a wet suit. He had prototype suits made for the entire family, including their daughter Bari. When they moved to San Diego in 1961, Hugh Bradner worked at Scripps while Marge began a career in real estate. Both the Bradners were accomplished sailors, and both of them were active in university life. In 1963, Hugh Bradner made the first set of seismic background measurements in the deep waters across the Pacific Ocean on a rented schooner, the *Dwyn Wen*. Marge went along on the two month cruise and wrote a book about the experience, *Seismic Summer: The Story of Eleven Men and One Woman Sailing Across the South Pacific to Study the Quivering Sea Floor*, which was recently published on the Scripps Archives Repository (<http://repositories.cdlib.org/sio/arch/biog/seismic-summer/>). Marge was an active member of Oceanids and Ancient Mariners. When the Bradners decided to make a gift to the university, Hugh deferred to his wife as the business brains of the family. In 2005, the Bradners established two endowments at Scripps, one unrestricted and one for Library Archives. (Deborah Day, dday@ucsd.edu, x44878, and Edwina Riblet, eriblet@ucsd.edu, x47793). *The Scripps Log* April 18 - April 25, 2008 vol. 44 no. 16

Bradshaw, John Stratli (1927-2010)

M.S. 1954, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1958, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

JOHN S. BRADSHAW. John S. Bradshaw died last week after a long battle with the oceanographer's disease, skin cancer. Jack was one of the group of five Martin Johnson students here at Scripps who, in the late 1950s, established the field of pelagic, ecological, biogeography. They found that large-scale, ocean-wide species patterns of major taxa showed coherent spatial patterns, that is, many different species occurred together more often than by chance. The spatial patterns of these recurrent groups coincided very nicely with Sverdrup's Water Mass patterns. This strongly implies that these ancient physical structures are the major habitats for pelagic, community-ecosystems, where species have co-evolved and are tied to those physical-climatic domains. Jack's special contribution to this program came through his study of the Pacific-wide distributions of pelagic foraminifera. Of all the groups studied this one was of great importance because of their extensive fossil remains in the sediment, from which change of pattern over time may be inferred. Jack's work on these community indicators was, and still is, essential to our insight into the history of oceanic ecosystem patterns and the role of ancient climates in regulating species diversity/abundance and the patterns of physical structure, now called Paleo-oceanography. After retirement Jack became a Gentleman Avocado Farmer. (John McGowan, jmcgowan@ucsd.edu). *The Scripps Log April 2 - April 9, 2010 vol. 46 no. 13*

Bratcher-Critchlow, Twila (1912-2007)

Twila Bratcher Critchlow, a delightful and generous friend of Scripps, passed away on Christmas Day in La Jolla. Twila and her sister, Billee Gerrodette, were the first women in the United States to be certified as scuba divers. They were members of the Bottom Scratchers, a La Jolla dive group, that started in the 1940s. They traveled extensively throughout the world to seek out interesting dive spots. Twila was also a pilot and an accomplished shell collector, specializing in Tenebra. Until the late 1990s, she participated in the La Jolla Roughwater Swim (in her 80s!). Along with her husband, Tom, and Billee and George Gerrodette, all of whom survive her, Twila often attended Scripps events, especially those dealing with the Collections and Birch Aquarium. Her generous gifts included support for the Collections, marine biology research, and education at Scripps and at the aquarium. Twila celebrated her 95th birthday at the end of November. We will miss her. (Edwina Riblet, eriblet@ucsd.edu). *The Scripps Log January 12 - 19, 2007 vol. 43 no. 2*

Brinton, Edward M. (1924-2010)

Ph.D. 1958, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

EDWARD BRINTON - Edward Brinton, research biologist at Scripps since 1950, died January 13. He was without question the world's leading authority on the biology of Euphausiid shrimp, aka Krill. Ed spent his entire scientific career here at Scripps. He began as a graduate student in 1950 and was awarded a Ph.D. in 1957. He continued on as a research biologist in the Marine Life Research Group, part of the CalCOFI program. He soon turned his dissertation into a major publication, *The Distribution of Pacific Euphausiids*. In this large monograph, he laid out the

major biogeographic provinces of the Pacific (and part of the Atlantic), large-scale patterns of pelagic diversity and one of the most rational hypotheses for the mechanism of sympatric, oceanic speciation. In all of these studies the role of physical oceanography and circulation played a prominent part. His work has since been validated by others and continues, to this day, to form the basis for our attempts to understand large-scale pelagic ecology and the role of physics of the movement of water in the regulation of pelagic ecosystems. In addition to these studies he has led in the studies of how climatic variations have led to the large variations in the California Current, and its populations and communities. He has described several new species and, in collaboration with Margaret Knight and Annie Townsend, worked out the complicated life histories of many Euphausiid species. His contributions to our understanding of the biology of the open ocean have been great. He was highly regarded in the international scientific community and received a formal tribute from the international GLOBEC program. He served as a major advisor and chief scientist for the State Department-sponsored Naga expeditions in the Gulf of Thailand and, later, as the curator of the UNESCO-sponsored Indian Ocean Biological Center in Cochin, India. He taught numerous students in both venues. Ed had a warm circle of friends and collaborators, both here at Scripps and at many foreign labs. Those of us who knew him remember him not only as an accomplished scientist but as a sincere and good-hearted friend and a great companion at both parties and wakes. He had a real and active concern for the less fortunate in life. He will be greatly missed. A memorial is being planned. (John McGowan, Annie Townsend, Elizabeth Venrick, scrippsnews@ucsd.edu, x43624). *The Scripps Log* January 15 - January 22, 2010 vol. 46 no. 2

Bronson, Earl Dean (1913-2002)

BRONSON - Earl D. Bronson, who was in charge of construction and initial operations of FLIP, died October 23, 2002, at his home in Warner Springs. Born in Hayden Lake, Idaho, in 1913, Earl entered the Navy in 1928 and spent 30 years in a wide variety of submarine billets, as a petty officer, warrant officer and commissioned officer, retiring in 1958 with the rank of Commander. During WW II he served in the submarines *Plunger* and *Bang*, making nine successful war patrols mostly as Engineering and diving officer. He was awarded the Silver Star three times, plus a Bronze Star, a Naval Unit Citation and a Submarine Force citation. Subsequent to WW II he served as submarine planning officer at Mare Island Naval Shipyard, Submarine Reserve Unit Administrator, Division Engineer, First Lieutenant of the Pearl Harbor Submarine Base, Repair Officer in the S/M Tender *Nereus*, and finally as the Military Governor of the Bonin Islands. Having worked with Earl during his tour as Reserve Unit Administrator, I was aware of his ability to get things done and searched for him as we moved toward construction of FLIP in 1961. Fortunately he had tired of being an Oregon farmer and accepted our offer to be our representative in Gunderson Bros. shipyard in Portland. After bringing FLIP successfully through construction and initial trials Earl became the officer in charge for the first five years of operations. During that period he developed the capability to make three point moorings in 5 km of water as well as technological improvements to FLIP capabilities. As MPL acquired additional facilities, including ORB and Lake San Vicente calibration barge, Earl took responsibility for their maintenance and operation. He provided construction and logistic support for our ARPA floating platform program, taking charge of building and operating a series of one eighth scale models of innovative ideas for test programs in San Diego Bay. Earl retired from SIO in 1973, after 45 years of making challenging things happen at sea. At his retirement he was cited by the Oceanographer of the Navy for "exceptionally meritorious service to the Navy and

to oceanography". Those of us who worked with him understood that he knew how to get a job done effectively with some enjoyment along the way. A service will be held Thursday, Oct. 31, 10:30 AM, at Fort Rosecrans. (Fred Spiess). *The Scripps Log November 1 - 8, 2003 vol. 39 no. 43*

Brooks, Elaine Ruth (1940-2003)

M.S. 1965, Marine Biology, Scripps Institution of Oceanography (UC San Diego)

We are sad to say Elaine Brooks lost her courageous year-long battle with brain cancer on July 24, 2003. Elaine came to Scripps from Albion College in 1962 to study biological oceanography. She worked for 20 years with Michael Mullin. Together they developed techniques for maintaining and rearing plankton animals in the laboratory and exploited them to evaluate pelagic secondary production. They published several classic papers together. After Elaine left Scripps she studied San Diego's inner city housing problems and the psychological and social problems faced by the homeless, preparing a remarkable thesis for a master's degree in social work. In that period she marshaled Scripps scientists and others to prevent wasteful spending by the city on tertiary sewage treatment. Her numerous essays on this were regular fare in the San Diego Union. In the 1990s, Elaine taught biology at several area colleges and developed a teaching program in urban ecology that received national attention. She also wrote two passionate books on the interaction of urban landscapes with the psychology of citizens. Elaine worked tirelessly for the homeless and forgotten, helping at the Rachael Center among other volunteer activities. Elaine was a loyal and active, even if complex and exacting, friend to scientists, poets, social activists, and folks of all sorts. She will be greatly missed by us. There was a memorial service for Elaine on Wednesday, August 20, at the Faculty Lounge at San Diego City College. (Many anonymous friends and Faustina Solis). *The Scripps Log August 22 - August 29, 2003 no. 40 vol. 33*

Brown, Martha Marian Neal (1943-2001)

Martha Marian Neal Brown died on August 16. She was born in San Diego, October 2, 1943. Her last "day job" was in the Sociology Department at UCSD where she was an Administrative Analyst, keeping tabs on grant money and department finances. She last worked for SIO in December 1987 for Sea Grant. She was Fiscal/Administrative Officer for the California Sea Grant College Program from May 1981 to December 1987. One of the great loves of Martha's life was music. She had a beautiful soprano voice, and sang with the La Jolla Symphony Chorus for over 25 years. Martha was also an avid reader who enjoyed Jane Austen as well as contemporary writers. Books about nature, Alaska, adventures in the wilderness, and especially about grizzly bears were high on her reading list. Martha was an active member of the Unitarian Universalist Fellowship of San Dieguito where she held various leadership positions over the years. Martha is survived by her wonderful husband, Greg and their son Oliver, a student at UCSD. Martha also has two daughters by a previous marriage, Kathy Ramsey who lives in Seattle, and Alison Ramsey who lives in Chicago. Her mother, Mildred Neal, older sister, Sharon Onak, and older brother David A. Neal Jr. live in Tucson. Her younger sister, Elizabeth Planteen, lives in Springerville, AZ, and younger brother Stephen Neal lives in Jamul. A memorial service for Martha will be held at the First Unitarian Universalist Church of San Diego, 1490 Front Street, on Saturday September 22 at 3 pm. In lieu of flowers, please make donations in Martha's name to one of the following: San Elijo Lagoon Conservancy, P.O. Box 230634, Encinitas, CA 92023-0634; San Dieguito River Park, 18372 Sycamore Creek Road, Escondido CA 92025; or

the Great Bear Foundation, Missoula, Montana. *The Scripps Log August 24 - August 31, 2001 vol. 38. No. 34*

Brown, Michael D. (1950-2002)

We are sad to announce that Jean Brown's son Mike Brown, 49, died suddenly on Saturday, February 23. Jean worked in the SIO Contracts and Grants Office and the Marine Physical Laboratory. Mike is survived by his wife, Barbara, and two daughters, Katie and Amanda. A memorial service was held February 28 at Lake Poway softball fields where Mike spent many hours volunteering for Poway recreational and high school softball. Cards may be sent to Jean via Pat Jordan at mail code 0701. (Pat Jordan and Nancy Wilson). *The Scripps Log March 22 - March 29, 2002 vol. 39 no. 11*

Bullock, Theodore Holmes (1915-2005)

Professor Emeritus Theodore Bullock, a renowned neurobiologist who was affiliated with Scripps and UCSD's Neurosciences Department and School of Medicine since 1966, died on Monday evening at Thornton Hospital in La Jolla. He was 90. Bullock's pioneering investigations included studies of sensory systems, especially in fish, neurophysiology of nerve cells, and electrical activity and evolution of the brain. A member of the National Academy of Sciences since 1963, Bullock received a variety of awards and honors during his long career, including, among others, a Fulbright Scholarship from the Zoological Station in Naples, Italy, in the 1950s, the Karl Spencer Lashley Award from the American Philosophical Society in the 1960s, a Queen's Fellow in Marine Biology in Australia in the 70s, and an honorary doctorate from the University of Frankfurt in the 80s. Bullock's investigations resulted a lengthy record of research publications, a list of which can be seen under his profile at: <http://expertise.cos.com>. Born in Nanking, China, in 1915, Bullock obtained his Ph.D. from the University of California at Berkeley in 1940. After serving for 20 years as a professor of zoology and member of the Brain Research Institute at UCLA, Bullock joined UCSD in July, 1966. An autobiographical profile is available at: <http://cogprints.org/130/00/Autobiog.htm>. Bullock is survived by his wife, Martha, daughter Chris Kazman (son-in-law Michael), son Stephen (daughter-in-law Nora), and five grandchildren. *The Scripps Log December 23, 2005 - January 6, 2005 vol. 41 no. 51*

Bunce, Elizabeth T. (1915-2003)

Elizabeth T. Bunce, a uniquely vivid geophysicist from the Woods Hole Oceanographic Institution, died December 13, in Falmouth Hospital at the age of 88 years. Betty was a true pioneer in her field of seagoing oceanography. She started work in close collaboration with Brackett Hersey at Woods Hole, essentially becoming the main manager of his seagoing operations. She was the first woman to chair a department at WHOI, the first woman to serve as Co-Chief Scientist on a deep-sea drilling cruise, and the first woman to dive in the submersible DSV Alvin. She was well known for her seagoing abilities, especially her no nonsense approach to shipboard work. Yet, during her cruises in the Gulf of Maine she managed to displace the cook in the galley to the delight of her colleagues in these rough seas. Indeed, she was known for carrying around a large wad of keys on board ship, enough to make any bos'n jealous. Together

with petrologist Richard Chase, she led a 1964 R/V *Chain* exploration to delineate the Owen Fracture Zone, a major tectonic feature in the Western Indian Ocean. In recognition of her explorations, a group of very significant seafloor elevations were named "Bunce Seamounts" by the cognizant international body. These discoveries also led to her being chosen to be the Co-Chief Scientist (with SIO's Robert L. Fisher) during Leg 24 of the Deep Drilling Project from Djibouti to Mauritius. On many of her research voyages aboard the Woods Hole ships *Asterias*, *Bear*, *Chain*, and *Atlantis-II*, Betty Bunce was the only woman on board. This preceded today's much improved situation of seagoing operations, in which scientists of either gender are participants without frightening anybody on the ship! Betty received her A.B. from Smith College in 1937, followed by an M.A. in physics from Smith College in 1949, and finally a well-deserved Sc.D. (Honorary) again from Smith College in 1971. Betty also was awarded the Women Pioneers in Oceanography Award of WHOI in 1995 for her significant contributions in the field of oceanography, particularly underway geophysics. This award honors an outstanding member of the world oceanographic community, one who has made a significant contribution to her field. Finally, last year, a fault in the Puerto Rico Trench, the deepest point in the Atlantic Ocean, was named in her honor. The field of oceanography has very much benefited from Betty Bunce's contributions. (Robert L. Fisher and Joris Gieskes). *The Scripps Log January 16 - January 23 vol. 41 no. 2*

Cagle, Emma Marie Bradley (1922-2003)

Emma Marie Bradley Cagle, long time wife of Ben Cagle, died March 24, 2003, from complications of Alzheimer's disease. Ben worked for several years with Bob Stevenson in the Office of Naval Research at SIO. Emma was born in Dayton, Ohio, on January 2, 1922. She went to Kent State, and during WWII worked for National Cash Register. She and Ben met at church, then moved to Pasadena, California. They did everything together -- vacations, travel, church, work, civics, and raised a family. Ben retired from SIO to take care of Emma during her last years. *The Scripps Log April 11 - April 18, 2003 no. 40 vol. 14*

Canuteson, Eric Leif (1968-2011)

Ph.D. 1996, Earth Sciences, Scripps Institution of Oceanography (UC San Diego)

ERIC L. CANUTESON - Scripps graduate Dr. Eric Leif Canuteson, born October 22, 1968, in Wausau, Wisconsin, died on December 12, 2011, in Los Angeles County after a long fight against cancer. Eric grew up in Liberty, Missouri, and graduated magna cum laude from Colorado College where he majored in physics. In 1989 he came to Scripps as a Summer Undergraduate Research Fellow. He entered our graduate program the following year and received a Ph.D. from the geophysics curricular group in 1996. His thesis is entitled *An Interferometer for Use in Absolute Gravity Meters, the Construction and Testing of an Ocean Bottom Absolute Gravity Meter, and a Method of Seismometer Calibration by Reference to a Falling Mass*. After graduation, Eric set off in a bold expression of his entrepreneurial dreams. After working for a seismometer manufacturer, he founded two small companies, worked in the optics industry, and spent time with the technology transfer office at Los Alamos. One of the companies he started, Metrozet, became quite successful and was ultimately bought by Kinemetrics, where Eric continued the development of high-precision seismic instrumentation

until the time of his death. In addition to being an extremely clever and insightful scientist and engineer, Eric had many passions including hiking, mountain biking, sailing, surfing, and traveling. Eric is survived by his wife, Nadia, their daughter, Katherine, his parents, John and Laura, and his brother, Greg, all of whom will remember Eric as a devoted and loving family member. His science and technology colleagues will remember him for his unusually broad intellect, his dogged inquisitiveness, and his wonderful sense of humor. He will be missed by us all. (Mark Zumberge, mzumberge@ucsd.edu, x43533). *The Scripps Log* December 23-January 2, 2011 vol. 47 no. 51

Chapman, David Cannon (1953-2004)

Ph.D. 1981, Oceanography, Scripps Institution of Oceanography (UC San Diego)

It is with great sadness to report the death of David Chapman on July 20 in Woods Hole, MA. In 1981, David received his Ph.D. in physical oceanography at SIO, and was thereafter at Woods Hole Oceanographic Institution, ultimately as a senior scientist. He leaves his wife, Beverley and two children. His many friends will miss him both as a valued colleague and a beloved friend. Further information regarding a memorial service will be forthcoming. (Myrl Hendershott). *The Scripps Log* July 23 - July 30, 2004 vol. 41, no. 29

Chase, Thomas Erskine (1931-2000)

Thomas Erskine Chase, who worked at Scripps from 1960 until 1976, passed away last January in Menlo Park, California after a long struggle with infections following earlier surgery. He was born in Jacksonville, Florida on Sept. 11, 1931. After serving in the Navy during the Korean conflict, Tom moved to San Diego where he met his wife Marlene and graduated from SDSU. First employed as "the only geologist" in the U.S. Bureau of Commercial Fisheries, Tom worked with H.W. "Bill" Menard to produce an atlas of the bathymetry of the Central Eastern Pacific Ocean that soon became sought after by tuna fisherman because fish were being found near previously uncharted seamounts. After moving to Scripps to work more closely with Menard, Tom headed up a much larger project of producing a series of charts and physiographic diagrams covering the whole North Pacific for the Navy. These were the first unclassified detailed maps of Pacific Ocean seafloor topography created with geological insight that were available to the scientific community. They became the standard for later work by Tom, Menard and Jacqueline Mammerickx in the South Pacific and elsewhere, as well as a major source for DBDB5, one of the first digital bathymetric data bases. In 1970 Tom became the head of the Geological Data Center which was newly established to archive and display the geophysical data collected on Scripps expeditions. He used his creative abilities to design and construct a projector system, the first of many contraptions (his word) he was to build throughout his career, to enlarge microfilmed seismic reflection profiler data into a "hanging gardens" of these data which were in great demand by the offshore oil exploration industry. Tom's open, friendly people skills were put to good use while he also served as the institution contact for oil industry members of the Scripps Industrial Associates which provided significant financial support to Scripps during the 1970s and 1980s. In 1976 the U.S. Geological Survey lured Tom away to Menlo Park where he continued his career making bathymetric charts, camera systems, and other data display devices until his retirement last year. Although it has been some time since Tom was at Scripps, he is still fondly remembered by his friends here as a friendly, energetic, and helpful colleague who will be sorely missed. He is survived by his wife, Marlene; three daughters, Ramona, Constance and Michelle; and six grandchildren. (Stuart Smith, Geological Data Center, Scripps,

ssmith@ucsd.edu, ;George Sharman, National Geophysical Data Center, NOAA,
ssmith@ucsd.edu. *The Scripps Log June 11 - June 18, 1999 no. 36 vol. 23*

Chow, Tsaihwa James (1924-2006)

Dr. Tsaihwa J. Chow (Jimmy), a geochemist with a long association with Scripps Institution of Oceanography, passed away on Wednesday, June 21, 2006, after a prolonged battle with Parkinson's disease. Jimmy was born in Shanghai on October 13, 1924, studied for his bachelor of science (1946) at National Chiaotung University in Shanghai, followed by an MS from Washington State University in 1949 and a PhD in 1953 from the University of Washington, where he studied Professor Thomas G. Thompson. He worked with Clair Patterson at Caltech from 1955-59, establishing a long-term collaboration. Their groundbreaking papers on lead isotopes in oceanic sediments and particularly in ice sheets in Northern Greenland as well as Antarctica, led ultimately to the recognition that anthropogenic lead production was a worldwide and major pollution problem. During his long association with Scripps from 1959 until 1988, when he became emeritus research scientist, he was a geochemist who worked on a series of topics of importance to the geochemistry of the ocean. With Prof. Thompson he studied the importance of Sr/Ca ratios in carbonate secreting organisms, but after his arrival at SIO he put his efforts into the study of lead isotopes in seawater, sediments, manganese nodules, and environmental samples. Of particular note was his paper in *Geochimica et Cosmochimica Acta* (26: 263; 1962) on the occurrence and significance of lead isotopes in pelagic sediments. The environmental importance of the use of lead isotopes was made clear by his studies of these isotopes in gasoline and aerosols in the Los Angeles Basin in 1965 (*Science*, 147: 110; 1965) as well as in other environments. His most direct colleagues in this work were Prof. Edward Goldberg of SIO and Prof. Clair Patterson of Caltech. Jimmy extended his interests in the study of various other elements (potassium, rubidium, barium, indium, as well as nutrients) in the ocean, working with his colleagues at SIO (inter alia, Ted Folsom, Arnold Mantyla, Warren Wooster). Throughout his years at SIO, however, his main focus remained on the studies of lead and lead isotopes in nature. Through the use of his unique mass spectrometer at Scripps, James Chow was one the foremost pioneers in the applications of lead isotope geochemistry in the natural environment. In short, he was an important component of the geochemical efforts at Scripps for a period of well over 30 years. He also was among the first persons at Scripps to act as a "scientific ambassador" for SIO to our geochemical colleagues in the People's Republic of China, not only through his active participation in research studies in China, but also through his own financial support of some of the early ventures of publication of scientific efforts in oceanography and geochemistry in China. (Charles Cox and Joris M. Gieskes). *The Scripps Log June 30 - July 14, 2006 Volume 42 Numbers 26 & 27*

Clifton, Michael Cecil (1945-2010)

MICHAEL C. CLIFTON - As one of the early workers at the Hydraulics Laboratory, Mike was involved in a wide variety of lab and field projects for many groups at Scripps Institution of Oceanography. A talented machinist and engineer, he designed and built many innovative instruments especially working with Bob Guza's nearshore oceanography group. After a courageous battle with cancer, Mike retired to his beloved home that he and his friends had built just outside Talent, Oregon. Early in his career at Scripps, Mike worked on this unique A-Frame log cabin starting with the timber on his property during the summer months. When the days shortened and the rains came, Mike would head south for the easily available work here. Mike

had a way with words, a knack for story-telling, and a remarkable life. (Mike Kirk, mkirk@ucsd.edu, x46729). *The Scripps Log April 16 - April 23, 2010 vol. 46 no. 15*

Commerford, Susan Marie (1950-2012)

SUSAN M. COMMERFORD - Sue passed away on Sunday, January 15, after a year-long battle with lung cancer. She was loved by all who knew her and will be sorely missed. Sue was a long-time employee at Scripps Institution of Oceanography, most recently in the laboratory of R. Glenn Northcutt for the past 20 years. She leaves her husband, Matt Poorman; daughter, Annie Owen; and grand-daughter, Anna. All hands are invited to a Memorial Service on Sunday, February 19, at 2 p.m., in the Martin Johnson House (T-29). (Mary Sue Northcutt, msnorthcutt@ucsd.edu). *The Scripps Log January 27-February 3, 2012 vol. 48 no. 4*

Costello, James P. (1928-1999)

We regret to inform the Scripps community of the death of James P. "Jim" Costello at the age of 70, February 15, in Ocean Beach. Jim started at Scripps in late 1955 as part of the CalCOFI program and the ONR-funded ASW studies. Later, he worked in the GEOSECS program and ODF and returned in 1991. Elizabeth Venrick says, "He was a good shipmate to many of us!" Jim will rest at Fort Rosecrans with his late wife Sonny. The date of the service is pending. Our heartfelt condolences go to their daughter, Kim Costello, of San Diego and their son, Mark Costello, of Laguna Beach.(George Hemingway, x44236). *The Scripps Log February 26 - March 5, 1999 vol. 36 no. 8*

Craig, Harmon (1926-2003)

CRAIG - Harmon Craig, one of the great pioneers of isotope geochemistry, died March 14th after suffering a massive heart attack at his home. He was one day shy of his 77th birthday. Harmon studied with Harold Urey at the University of Chicago, where his thesis work formed the foundation of carbon stable isotope geochemistry. With Urey he also did important work on the compositions of meteorites. In 1955 he was brought to SIO by Roger Revelle, where his early work focused on isotopic studies of the global water and carbon cycles. In the 1960s and 1970s he turned his interests to applications of geochemical tracers in oceanography, and he became one of the leaders of the GEOSECS program, the first integrated chemical, isotopic and hydrographic study of the world's oceans. Also in the 1970s, Harmon and co-workers discovered that volcanic gases of mantle origin contained primordial helium-3, a remnant of Earth's formation. The application of helium isotopes to Earth problems--from mantle systematics to crustal processes to ocean circulation--remained as major interests from then onward, taking him to some of the world's most remote locations to sample volcanic rocks, deep-sea hydrothermal fluids, hot springs and fumaroles. He also worked on the chemical and isotopic compositions of trace gases in the atmosphere, including studies of the paleoatmosphere using polar ice cores. He was a recipient of the Balzan Prize, the Vetlesen Prize, the V. M. Goldschmidt Medal of the Geochemical Society, the Arthur L. Day Medal of the GSA, and honorary doctorates from the University of Paris and the University of Chicago. He was also a member of the National Academy of Sciences and the American Academy of Arts and Sciences, and a Fellow of the American Geophysical Union. The ocean and earth science world has lost a truly spirited adventurer and one of its greatest geochemists. Harmon's sense of adventure knew no bounds. His curiosity was limitless and his enthusiasm for science and drive for scientific achievement were unparalleled. He is survived by his wife of 55 years, Valerie, three daughters, and four

grandchildren. There will be a memorial celebration in Harmon's honor on **Friday**, April 4th at 3:30 p.m. at the Martin Johnson House on the SIO campus. Please come prepared to tell stories from Harmon's life, or send them by e-mail to Jill Hammons (jhammons@ucsd.edu) if you cannot attend and would like them to be read on your behalf. (Charlie Kennel). *The Scripps Log* March 21 - March 28, 2003 no. 40 vol. 11

Craig, Valerie Kopecky (1926-2009)

VALERIE KOPECKY CRAIG (1926-2009) - Valerie Craig died peacefully Wednesday, April 22, at her home in La Jolla. She had been diagnosed with Alzheimer's disease in 2004. Family members and caregivers were at her side. Valerie was born in Chicago, Illinois, to parents of Czech origin, in 1926. While working at the American Red Cross during World War II, she was persuaded to seek a university education and enrolled at the University of Chicago, where she received a Master's Degree in Business Administration in 1948. There she met geochemistry graduate student Harmon Craig, whom she married in 1947, thus beginning a 55-year familial and academic collaboration. In 1955, Roger Revelle recruited the Craigs to Scripps Institution of Oceanography, where they became part of one of the most remarkable geochemistry faculties ever assembled. In addition to raising three daughters, Valerie became the Chief Operating Officer of the Craig scientific enterprise. She provided logistic, administrative, and emotional support not only to Harmon, but also to his graduate students, laboratory staff, and visitors. She served this function, not only at Scripps but also on Harmon's sample collecting expeditions around the world, many with long-time Scripps marine technicians Fred Dixon or Ron Comer. Daughter Cynthia remembered: "I do have a favorite story of my father standing on my mother's shoulders to get a sample of a rock face because it reminds me of Newton: 'If I have seen further than other men it is because I have stood on the shoulders of giants' and my mother was that giant." Ron Comer commented: "She was a devoted wife. She was Harmon's partner in everything, and her wit matched his." Valerie famously had a t-shirt emblazoned in large letters with "Yes, Harmon," but she was actually the one who held everything together. Harmon died in 2003. Valerie is survived by daughters Claudia Craig Marek, Cynthia Camilla Craig, and Karen Constance Craig, brother Zeno Kopecky, Jr., brother-in-law John Craig III, and four grandchildren. The family has no specific requests, but suggests that those who wish to make a donation in Valerie's honor consider the Alzheimer's Association or Oxfam International. (Ray Weiss, rweiss@ucsd.edu, x42598). *The Scripps Log* May 1-May 8, 2009 vol. 45 no. 17

Cupp, Easter Ellen (1904-1999)

Ph.D. 1934, Biological Oceanography, Scripps Institution of Oceanography (UC Berkeley)
CUPP - Easter Ellen Cupp, the first woman in the United States to receive a doctorate in oceanography, died Friday, Aug. 27, of natural causes at her home in Kensington. She was 95. Cupp received a Ph.D. in biological oceanography from Scripps Institution of Oceanography in 1934. She conducted research on plankton as a research assistant to her advisor and mentor Scripps professor W.E. Allen. Cupp remained at Scripps to serve as a research associate from 1934 to 1937 and as an instructor from 1937 to 1940. Her book, "Marine Plankton Diatoms of the West Coast of North America," published in 1943, is considered a significant contribution to the field and is still used by researchers today. According to John McGowan, "Easter Cupp's monograph on West Coast diatoms was, and still is, a major contribution to our understanding of the biology of the California Current. It is accurate; it is precise, and was about 20 years ahead of its time. It will be in use for at least another 50 years. A classic." After leaving Scripps in 1940,

Cupp served as an assistant biologist for the Naval Biological Laboratory in San Diego until 1943. She then went on to teach science and English at Woodrow Wilson Junior High School in San Diego until her retirement in 1967. She never married. Born on Easter day March 30, 1904 in Neola, Iowa, Cupp received an A.B. degree from Whittier College in Los Angeles in 1926 and a master's degree in zoology from the University of California, Berkeley in 1928. Cupp is survived by her longtime companion, Dorothy Rosenbury, and nephew, Joe Cupp, of Iowa. No memorial services are planned. *The Scripps Log September 3 - 10, 1999 vol. 36 no. 35*

Devonald, Felicity Kim (1953-2001)

Ph.D. 1983, Oceanography, Scripps Institution of Oceanography (UC San Diego)

DEVONALD - Kim Devonald, Biological Oceanography graduate of SIO in 1983, died of cancer on November 18 at an early age. Kim was born on May 27, 1953, in Los Angeles and obtained her BS from Stanford. Her PhD advisors were Mike Mullin and Reuben Lasker. Kim's interests were at the interface of science and society. Her Ph.D. concerned the ecology of jack mackerel, a commercially-fished species. She went on to work at the EPA, first at the Office of Planning, Analysis and Accountability and subsequently at the National Center for Environmental Research (NCER). Peter Preuss, Director of NCER, wrote that "Kim was an employee who exemplified the highest standards of the EPA." Recollections of Kim include a tall, charming, athletic, Californian who loved avocados and swimming. Her height, smile, laugh, and positive demeanor were a good match for her advisor, Mike Mullin. She is survived by her sons David and Paul (12 and 13 years old) and her mother, Tessa. A memorial service was held December 3. Contributions can be made to The Hospice of North Virginia, 4715 N. 15th St., Arlington, VA 22205. (Dave Checkley). *The Scripps Log December 14- December 21, 2001 vol. 38 no. 50*

Dill, Loyd Evans (1919-2011)

IN MEMORIAM It is with great sadness that we report the passing of Captain Loyd Dill.

Captain Dill sailed the *Glomar Challenger* from its very beginning in 1968 until his retirement after Leg 85 in 1982. Cap'n Dill worked with many people at Scripps and will be remembered fondly by the Global Marine crew, Deep Sea Drilling Program technicians, and scientists around the world for his great sense of humor and inimitable way of telling his limitless sea stories.

(Scripps Communications, scrippsnews@ucsd.edu, x43624). *The Scripps Log April 8-April 15, 2011 vol. 47 no. 14*

Dill, Robert Floyd (1927-2004)

M.S. 1955, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1964, Oceanography, Scripps Institution of Oceanography (UC San Diego)

ROBERT DILL - Bob Dill, a former SIO student and a long-time collaborator with SIO scientists, died of a heart attack on January 24. Bob was a participant in Scripps's early expeditions. He was responsible for much of the geological sampling on R/V Horizon in 1950 on MidPac Expedition as a student at USC studying with Ken Emery, and then on R/V Spencer F. Baird in 1952 on Capricorn Expedition as an employee of the Sea Floor Studies Group of the Point Loma Navy Electronics Lab. Bob was best known as an early and outstanding scientific scuba diver. He became a close personal friend of Jacques Cousteau in 1950 and subsequently worked with Cousteau for many years. Through this association he became one of the pioneers

of scientific scuba diving with his fellow USC student, Dave Moore. They were then participants in a Navy lab experiment in underwater geological mapping by scuba divers, and were co-authors of one of the first scientific papers on underwater science by scuba divers (Menard, et al, 1954). Menard, Dill, Moore, Bob Dietz and Ed Hamilton formed a group in 1953 called Geological Diving Consultants, later called General Oceanographics and then Nekton, Inc. This group mapped much of the geology to 150 feet off California from the Mexican border to Oregon and in several other parts of the world by scuba diving, and later to 1000 feet with Nekton shallow submersibles. This work was primarily for oil companies, US Government agencies and engineering companies. I was privileged to join this group with Ed Buffington and Harris Stewart shortly after it was formed. I can vouch that Bob was an outstanding diver whom I totally trusted as a buddy diver. In 1956 Bob was selected as one of the first divers to observe and photograph the ship *Andrea Doria* which had sunk off Nantucket Island. In his years as a diving geologist, he had literally worked all over the world. Bob became an internationally known authority on erosion in the shallow parts of submarine canyons. His dissertation at Scripps in 1966, under the guidance of F. P. Shepard was based on extensive diving observations and experiments in the head of Scripps and La Jolla submarine canyons. He co-authored a book on submarine canyons with Shepard in 1966. In 1970 Dill left the Navy lab to become the geological scientist for the newly formed NOAA and the Manned Undersea Science and Technology Program (MUST). In 1976 he became a professor and Director at the West Indies Laboratory of Farleigh Dickinson University. There he developed an interest in shallow water carbonates of the Caribbean, an interest he retained for the rest of his life, including association with several Caribbean labs and the underwater habitat Hydro-Lab program. He retired from federal service in 1983 and returned to San Diego, where he continued with consulting and involvement with Navy and Department of Interior marine programs. Dill is survived by his wife Sonia, sons Robert, Mark, and James Dill, and a step-daughter Kathryn Baslee. (Joe Curray). *The Scripps Log January 30 - February 6, 2004 no. 41 no. 4*

Doudera, Evelyn (-2012)

EVELYN DOUDERA - It is with deep sadness that I inform the Scripps community that our dear friend and colleague, Evelyn Doudera, passed away on Nov. 14. Evelyn was an administrative assistant in the Marine Physical Laboratory for 17 years providing academic and staff support services for a variety of research groups since July of 1995. Prior to that Evelyn worked in Cognitive Science at UCSD providing secretarial services for faculty from the School of Medicine. At the time of her retirement on July 1, 2012, Evelyn had 21 years of UCSD service. Evelyn began her career at Scripps Oceanography as a part-time employee but her position soon became full-time. This was due, I imagine (since her career at SIO began before mine), in no small part, to her dedication and talent for taking all of her responsibilities seriously. Evelyn made a lasting impression on anyone who had the good fortune to work with her at MPL. She was very much personally invested in her job - her caring and her concern for all who were within her purview was a hallmark of her time with us. She had an absolutely marvelous sense of humor and sharing moments of undiluted laughter with her is one of the things I will always remember and treasure. She is greatly missed. (Janet Brucker, jbrucker@ucsd.edu, x41789). *The Scripps Log February 8-15, 2013 vol. 49 no. 6*

Drogin, Stephen B. (1939-2009)

STEVE DROGIN - Scripps Institution of Oceanography and the greater diving, underwater photography, and ocean-related communities lost a great friend when Steve Drogin suffered a fatal heart attack on April 14 while traveling in India with his wife, Hiro. A longtime E.W. Scripps Associates member, Steve was supportive of several Scripps students over the years. After building his own submersible, a three-person yellow submarine, *DeepSee*, he provided funding to enable three Scripps students—Brad Erisman, Talina Konotchick and Brian Zgliczynski—to travel to and spend 10+ days around Cocos Island, Costa Rica, exploring the wonders of the sea via scuba diving and descending to even greater depths in his submarine. In 2005, Steve hosted a Scripps-only viewing of his submarine and reception in the parking lot near Hubbs Hall before *DeepSee* officially went into operation. In 2007-08, Steve was one of several donors to help fund Center for Marine Biodiversity and Conservation master's student Laura Escobosa, whose graduate research involved an area near and dear to his heart, the Sea of Cortez. In summer 2008, Steve brought his submarine to the Sea of Cortez, where he, several Scripps scientists and students, and their Mexican counterparts participated in a research expedition that revealed the Gulf of California's Deep Sea secrets as well as human impacts. The *DeepSee* allowed the scientists to survey marine life with its 360-degree glass dome at depths as extensive as 475 meters (1,500 feet). Steve, who had been diving since 1958, and his wife Hiro participated in Scripps' first donors' trip to Palmyra last November. While Steve traveled extensively during his lifetime, he considered the Palmyra trip a real highlight. Steve portrayed his love of the sea in his immense collection of underwater photographs from nudibranchs, the tiniest of sea creatures, to the largest sharks and whales. Some of his photos were donated to and are now displayed in the Scripps Oceanographic Collections. He made numerous presentations about his adventures to diving and underwater photography clubs and to Scripps students and scientists. He also hosted many Scripps scientists and students at his home for special presentations over the years. Steve is survived by his wife, Hiro; a son, Mike; a daughter, Laura; and several grandchildren. At this time, we do not have any information related to possible memorial services. (Anne Middleton, amiddleton@ucsd.edu, x46945) . *The Scripps Log* April 17-April 24, 2009 vol. 45 no. 15

Dunn, Allen Prescott (1947-2010)

ALLEN PRESCOTT DUNN - Allen Prescott Dunn passed away over the weekend. Allen started his employment at the Nimitz Marine Facility in 1981. He was in charge of shipping and receiving for almost 23 years, retiring in 2004. For most of those years, Allen was also responsible for the landscaping and general maintenance of the facility. Allen was well known for his first-class custom wooden shipping containers that carried valuable equipment and materials to our research vessels all over the world. Over the years, the volume and complexity of the job steadily increased, but Allen's shipments arrived on time, undamaged, and with no customs delays. Allen was a runner, a courier, and some days a chauffeur. He happily wore many hats. He loved what he did, took a lot of initiative, and great pride in doing an outstanding job. Allen was quite a character too. He loved music, poetry, drama, and acting, especially Shakespeare. He was always studying the arts, taking classes, performing whenever he could. Anyone who ever worked at MARFAC experienced a performance of one kind or another. A real high point in his life was working as an extra in the film *Titanic*. MARFAC shipping and receiving will always be fondly known as "Allenland." Attempts to change it after he retired fell

on deaf ears. Peace to you, Allen Dunn, in your final act. (Joan Durkin, jdurkin@ucsd.edu, x44121). *The Scripps Log August 13 - August 20, 2010 vol. 46 no. 32*

Dyas, Josephine R. (1937-2003)

Josie Dyas of Seattle, Washington, died on February 5. Most of you did not know Josie but she was an amazing woman. For many years Josie was a "foster parent" to our CDIP wave buoy. She did this on her own, caring and protecting it while moored at the entrance to Grays Harbor. Josie took it upon herself to contact new vessels in the area, warning them of the buoy's position. And, in the event of any problems, she made arrangements to see that the buoy was still on site and working properly. The actual monitoring equipment was in her home. Her care was vital to the success of the Coastal Data Information Program. Moreover, she was also involved in the Coast Guard auxiliary, maintaining nightly vigils at her station and, through her vigilance, numerous wayward sailors have been saved. In this day and age, of international crises and budget woes, it is gratifying to know that there are caring and concerned people who will rise above the fray. As a token of appreciation, a special tile will be installed at the whale fountain located at the world famous Birch Aquarium in recognition of her caring services. *The Scripps Log February 14 - February 21, 2003 vol. 40 no. 6*

Dymond, Jack Roland (1939-2003)

Ph.D. 1966, Oceanography, Scripps Institution of Oceanography (UC San Diego)

The ocean science community mourns the loss of Jack R. Dymond, professor emeritus in the College of Oceanic and Atmospheric Sciences at Oregon State University. Jack died September 19, 2003 at age 64 during a fishing trip on the lower Rogue River near Gold Beach, OR. After earning his Ph.D. at SIO in 1966 and completing post-doctoral work at Columbia University, Jack came to OSU in 1969. After 28 years of university service, during which he was an inspiration to many colleagues and students, as well as those in the Corvallis community, Jack retired in 1997, but remained active in a variety of academic and research endeavors. His research interests included the geochemistry of ocean sediments, particle fluxes in the oceans, paleoproductivity in the oceans, lake geochemical processes, and global environmental change. He was particularly well-known for his role in the exploration of the deep-sea hydrothermal vents at the Galapagos Spreading Center in 1977 and later for his work in Crater Lake (OR) during the mid-1980s. Those wishing to make a donation in Jack's memory can do so to the Jack Dymond Environmental Memorial Fund, which has been established by his family at the OSU Federal Credit Union, PO Box 306, Corvallis, OR 97339-0306. Because this is an anonymous account, messages of condolence may be sent to the College of Oceanic and Atmospheric Sciences, 104 Ocean Administration Building, Corvallis, OR 97331-5503, and indicate that a donation was made in Jack's memory. The messages will be forwarded to Jack's family - his wife, Jan, and sons Chris and Tim. (Sharon Franks and Ray Weiss). *The Scripps Log September 26 - October 10, 2003 no. 40 vol. 38*

Edmond, John Marmion (1943-2001)

Ph.D. 1970, Oceanography, Scripps Institution of Oceanography (UC San Diego)

John Marmion Edmond, MIT. Professor John M. Edmond, a geochemist who graduated from the University of Glasgow in 1965 and received his Ph.D. at SIO in 1970, died unexpectedly on April 10th at age 57. He carried out important and pioneering work in a wide range of research subjects including the carbonate chemistry of seawater, hydrothermal vent chemistry, oceanic

trace element distributions, continental weathering, the chemical compositions of rivers and lakes, and paleoceanography. This work stemmed from John's broad interest in understanding how the chemical composition of the oceans and other natural waters evolved and was maintained and altered in response to geological, biological and climatic processes. John was an observational scientist in the best SIO tradition, whose field work spanned the entire globe. He was widely known for his extraordinary wit and insight, and for his ability to come to the heart of a matter in only a few words. John was also an excellent teacher, whose many successful students have made major contributions in many areas of geochemistry. Here at SIO he is also fondly remembered as the founder of our long-standing TGIF tradition. John Edmond was a Fellow of the Royal Society, as well as of the American Geophysical Union. He was a recipient of the AGU's Macelwane Medal and of the Harold Urey Medal of the Geochemical Society and the European Association of Geochemistry. He is survived by his ex-wife and two sons, who request that donations in John's honor be made to The Pine Street Inn, a shelter for homeless men and women in Boston at 363 Albany Street, Boston, MA 02118, 617/482-4944. *The Scripps Log* April 20 - April 27, 2001 vol. 38 no. 16

El Wardani, Sayed Ali (1927-2006)

M.S. 1952, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1956, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

Dr. Sayed El Wardani passed away Friday, December 1, 2006. Services and burial were performed according to the Muslim faith and greatly assisted by members of the San Diego Islamic community. His extended family gathered for simultaneous services in Alexandria, Egypt. Sayed received his Ph.D. from Scripps Institution of Oceanography in 1956. He married Joan Newman of La Jolla in 1955. They had three children, twins Ramsey and Nile, and younger son Ladd. Sayed was a professor at the University of Washington, University of Oregon and San Jose State before returning to La Jolla in 1965 to join Lockheed. In 1972, Sayed moved to Coronado, where in 1989 he married Mary Elizabeth Phee (Bette) of Scottsdale, Arizona. They resided in both Coronado and Scottsdale. Known by his family and friends as a bon vivante, he was always full of life. He loved to sing at the drop of a hat, or tell one of his fascinating life's stories, and was often the life of the party. If you wish to make a donation in Sayed's name please send it to the Islamic Children's School, Alhuada School c/o, Al-Rribat Center, P.O. Box 15926, San Diego, CA 92175. *The Scripps Log* December 22, 2006 - January 5, 2007 Vol. 42 Number 51

Engel, Celeste Gilpin (1923-2004)

CELESTE ENGEL - Celeste Gilpin Engel, a world-class field geologist analytical chemist and widow of A. E. J. Engel, SIO igneous petrologist, died early January 25 in a Hamilton, Montana hospice. She was lucid and gallant through a long and painful illness. Celeste and Al moved to SIO to flee the smog from Cal Tech in 1959. There they had formed an effective team, she a senior analyst, he a dynamic professor. Those roles were continued here initially to complete landmark interpretations in the northern Adirondacks and Montana's Belt Series. Celeste and Al came upon SIO's collection of dredged seafloor basalts from 1950s-1960s expeditions to the East Pacific Rise, the Mid Atlantic Ridge and Central Indian Ocean. Meticulously combing the literature and making cutting-edge wet-chemistry analyses, they soon recognized the exceeding uniformity in chemical composition---low potassium, uranium, barium, rubidium---of seafloor "tholeiitic basalts" from nearly two-thirds of the Earth's area. Arguably, by 1964-65, their three

definitive summary papers gave birth to the field of marine igneous geochemistry. Celeste Engel then moved to determining the chemistry of Pacific deepest trench rocks and southwest Indian Ocean lower crustal-upper mantle rocks dredged by Bob Fisher. She joined the CIRCE Expedition investigations (1969) aboard R/V *Argo*, from Mauritius to Mozambique, and they published several joint French flank or fracture zone petrology papers. During the APOLLO 11-17 moon sampling of the 1970s, Celeste analyzed the returned mini samples and conferred frequently in deep mutual respect with Harold Urey on similarities of Pacific tholeiites and probable lunar igneous geology. Although never an SIO employee, Celeste had a very profound part in SIO's geological researches. She is survived by two sons, Robert, a biology professor at Vermont's Marlboro College, and Tom, an artist-cum-attorney in Camarillo, California. (Bob Fisher). *The Scripps Log* January 30 - February 6, 2004 no. 41 no. 4

Enright, James Thomas (1932-2004)

M.A. 1959, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1961, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

James Enright, an emeritus professor of behavioral physiology at Scripps Institution of Oceanography, died Sept. 23, 2004. He was 71 years old. Jim's research interests included biological rhythms, orientation, marine ecology, human eye movements and visual perception. Born in Baker, Oregon, in 1932, Jim received undergraduate (1957, with highest honors), master's (1959) and Ph.D. (1961) degrees in zoology from the UCLA. In 1981 he was awarded the prestigious Alexander von Humboldt Prize to study at the Max Planck Institute for Biophysical Chemistry. Jim's doctorate thesis work was completed at Scripps between 1957 and 1961 under E.W. Fager. Following post doctoral work in Germany, he was appointed an assistant professor in the department of zoology at UCLA in 1963. He rejoined Scripps in 1966 as an assistant professor of oceanography and became an associate professor in 1968 and professor of behavioral physiology in 1974. He served as a Fulbright-Hayes Fellow lecturer at the University of Innsbruck, Austria, during 1978 and 1979. Jim retired from Scripps in June 2000. There will be an Open House Memorial Service, Saturday, October 16, 3-6 p.m., at the family home located at 7561 Cabrillo Avenue, La Jolla. Enright is survived by his wife, Roswitha, of La Jolla; his sister Margaret Ivester of La Grande, Oregon; his sons Phillip and Paul of San Diego, Kenneth and Patrick of the Seattle area, and their families. (SIO Communications, x43626). *The Scripps Log* October 1 - October 8, 2004 vol. 41 no. 39

Escobedo Olvera, Miguel Angel (1982 - 2011)

MIGUEL ANGEL ESCOBEDA OLVERA - With great sadness, we report the death of Miguel "Micks" Angel Escobeda Olvera, in a tragic accident while conducting fieldwork for the Isla Guadalupe Biosphere Reserve. Miguel died on March 20, at 29 years of age. Miguel was a graduate student of Dr. Oscar Sosa-Nishizaki's at CICESE in Ensenada, where he received his M.S. in Marine Biology in 2008. Oscar introduced Miguel to me when I was a Scripps Oceanography graduate student in Dr. Jeffrey Graham's laboratory, and a fruitful collaboration was born. Throughout most of my doctoral research in Mexico, Miguel was a wonderful friend and invaluable traveling companion. Many a desert campfire was cheered by Miguel's stories and famous Mexican war cry, while his enthusiasm and constant smiling demeanor were trademarks of his personality, almost as much as the Rastafarian dreadlocks he sported. The latter were known to almost every fisherman on the Pacific coast of Baja California, who referred to Miguel as the "Rasta biologist!" Miguel was an accomplished field biologist. He

completed an excellent thesis on the biological characteristics of the catch of the Ensenada-based drift gillnet fleet, and I had the pleasure of serving on his M.S. faculty committee. In addition, he was a co-author on several publications detailing capture of elasmobranchs in Mexican artisanal fisheries, and will co-author several forthcoming articles to which he contributed. Miguel also participated in several projects with Southwest Fisheries Science Center personnel, and was esteemed universally by those who knew him. He will be sadly missed, but fondly remembered. Adios, Micks. (Daniel Cartamil, dcartamil@ucsd.edu). *The Scripps Log* April 1-April 8, 2011 vol. 47 no. 13

Evey, Jason M. (1976-2006)

EVEY - The Scripps community was deeply saddened to learn that Jason Evey, son of SIO Assistant Director John Evey, was killed in Iraq on Sunday, July 16. Jason, born Christmas Day in 1976 in Corvallis, Oregon, was an amiable, caring individual and a protective leader of those with whom he served in the U.S. Army. Jason had been in the Army for 6 years and had been in Iraq since November of 2005. Jason was a staff sergeant; his function was as a cavalry scout and he was a troop commander. Though he had expressed the opinion that the conflict in Iraq was not a war in which this country should be engaged, he served with dedication and honor. His parents are deeply saddened and angered at the senseless loss of their son. At the same time, they honor and respect those in the military service and wish for the safe return of others in combat everywhere. Jason is loved and survived by his parents John and Beate Evey who reside in San Diego County, but are from Western Oregon. Given Jason's love of the outdoors, his parents ask that memorial gifts be directed to the National Parks Conservation Association, 1300 19th Street, NW, Washington, DC 20036. *The Scripps Log* July 21 - 28, 2006 Volume 42 Number 29

Faulkner, David John (1942-2002)

FAULKNER -It is with very great sadness that we report the loss of one of our own. Professor D. John Faulkner died Saturday, Nov. 23, 2002, at Thornton Hospital in La Jolla, from complications following recent heart surgery. He was 60 years old. A professor of marine chemistry at Scripps, John dedicated his scientific career to the discovery and isolation of new chemical substances from marine organisms. He investigated the biological foundations for these chemicals and explored their pharmaceutical potential. John Faulkner was a pioneer of the marine natural products chemistry field, an area of study which has garnered significant attention as scientists realized the importance of chemical signals in the sea. His fundamental contributions defining how marine organisms use chemicals to communicate and defend themselves made him one of the world's eminent marine chemical ecologists. John's contributions also included the discovery of new anti-inflammatory agents, new entities for the treatment of cancer and new antibiotics. John's greatest joy was teaching his students, a process in which he was deeply committed. Born in Bournemouth, England, John Faulkner attended Imperial College, in London, where he received a B.Sc. in chemistry, with first class honors, in 1962, and a Ph.D. in organic chemistry in 1965. He joined Scripps Institution of Oceanography as an assistant professor in 1968 and spent the duration of his scientific career here. Prior to joining Scripps, John was a postdoctoral fellow at Harvard University and Stanford University. He was a visiting scholar at Cambridge University in 1975, the University of New South Wales in Australia in 1981, and the University of British Columbia in 1989. He was a member of the Royal Society of Chemistry and the American Chemical Society and had published more than 300 scientific papers. John was the recipient of the Paul J. Scheuer Award in Marine Natural

Products Chemistry in 2000, and will receive the highest award bestowed by the American Society of Pharmacognosy in July (2003). John Faulkner is survived by his wife, Meryl, who commented that "this had been a great year for John. His 60th birthday celebration was such a pleasant surprise to him, it was wonderful afterwards with the dinner outside, and so many friends who could be there on such a beautiful warm evening." Those who would like to honor John may contribute to the John Faulkner Student Support Fund (SIO Department), which will be used to support students and travel to scientific meetings. John will be sorely missed by so many friends and colleagues around the world. A memorial service is planned for late January. (Bill Fenical). *The Scripps Log* December 6 - December 13, 2002 vol. 39 no. 47

Fels, Jean-Francois (1942-2011)

JEAN-FRANCOIS FELS - Jean-Francois Fels, who worked at Scripps from 1985 to 1993, died at the age of 69 in Toulouse, France, on April 10, 2011, after a short illness. He came to IGPP from the Institut de Physique du Globe de Paris where he was the chief engineer of the GEOSCOPE project. At IGPP, he worked with the Project IDA group on the development of the Global Seismographic Network. He will be well remembered at Scripps for his many talents, not only in science and engineering, but also in music (he was an accomplished saxophonist), dance (he was an avid flamenco dancer), and art design. He is survived by his wife, Christine Egas, daughters Stephanie and Valentina, and sons Benjamin and Nicholas. (Jon Berger, jberger@ucsd.edu, x42889). *The Scripps Log* April 15-April 22, 2011 vol. 47 no. 15

Fisher, Frederick Hendrick (1926-2005)

Ph.D. 1957, Physics, Scripps Institution of Oceanography (University of Washington)

Our cheerful, dedicated colleague of over 50 years, Fred Fisher, suffered a stroke last week and died on Wednesday, May 4. Fred was born in Aberdeen, Washington in 1926. After spending 1945-46 at the US Naval Academy, he graduated from the University of Washington in 1949. His first contacts with SIO occurred during his graduate student years as he became interested in understanding the acoustic properties of seawater. He came to MPL in 1955, doing his thesis research here with Leonard Liebermann on the effects of high pressure on solutions of magnesium sulfate and completing his UW Ph.D. in 1957. After a year as a post-doc in Ted Hunt's acoustics lab at Harvard, Fred joined MPL in 1958 as an Asst. Research Physicist and in 2005 he was still here -- a friendly, constructive presence on campus as an Emeritus Research Oceanographer. Fred's research was carried out in two quite different venues -- in his shoreside lab and at sea. In both, he was an enthusiastic hands-on experimentalist. In the laboratory he developed approaches for investigating the properties of aqueous solutions under high pressure, particularly unraveling the dynamics of MgSO₄ -- the primary factor in the absorption of sound in the ocean. His outreach in this field resulted in drawing Andrew Dickson to join MPL. His seagoing work focused on sound propagation in the ocean, starting with the question of the accuracy with which sound could be used to determine the direction to a distant target. Discussions of how best to make the necessary measurements led us, stimulated by an Allyn Vine comment about turning a submarine on end, to the concept of FLIP. Bringing that to reality kept Fred, with help from Philip Rudnick and myself, busy for several years. I think Fred most enjoyed the stage in which he and the MPL shop put together a variety of 1/10th scale models for use in San Diego Bay to explore the dynamics of the flipping process. With FLIP a reality, Fred carried out the key oceanic measurements, showing the feasibility of a proposed Navy antisubmarine missile system and starting two decades of documenting the ocean's acoustic properties. Fred was not only an ingenious experimentalist, he was a good citizen. He was MPL's

Associate Director under three directors and served SIO on many committees, including chairing the Staff Council. He held a variety of positions in the Acoustical Society of America, including its presidency in 1983-84 and was a member of the Governing Board of the American Institute of Physics, 1985-91. Fred believed strongly in the need for Scripps people to know, interact with, and appreciate one another. His most recent effort in that direction was as a founder of the Ancient Mariners organization. Therefore, along those lines, let's gather with his four sons, their families, and other friends on Pawka Green starting at 9:30 a.m. on Wednesday, May 25, and, in remembrance of Fred, his family asks you to wear a Hawaiian shirt. They also suggest donations in Fred's memory to SIO for graduate student support. (Fred Spiess). *The Scripps Log* May 13 - May 20, 2005 vol. 42 no. 19

Fisher, Sarah Coburn (1920-2004)

Sallie Fisher (Sarah Coburn Fisher), the wife of SIO's Bob Fisher, died March 26 of an embolic stroke at Thornton Hospital. She was born in Louisville, KY, and lived during her early youth in New Orleans and then Grosse Pointe, MI. After two years at Randolph Macon Women's College in Lynchburg, VA, she graduated in European History and French at the University of Michigan and earned an MA in those subjects at Emory University in Atlanta. Early in 1944 she was recruited by the Office of Strategic Services (OSS), the forerunner of the CIA, and served as a civilian cryptologist and paraphraser in North Africa and the Middle East during the later years of WWII. As Sallie said, World War II was a turning point in her life. The duty was difficult, on occasion dangerous, but exciting. One night at a formal British dinner party in Cairo, she was asked for a dance by a very handsome English gentleman; he turned out to be Anthony Eden. After the war she married and raised a family and during 19 of those years lived in Europe, mainly western Switzerland and Brussels and traveled widely. Sallie met Bob in Auckland, New Zealand where both had gone to see Halley's Comet. They were soon married and Sallie moved to La Jolla in 1986. Sallie was a true gentlelady of the old school, and a proven intellectual. We will miss this gracious Southern lady. (Joe Curray) . *The Scripps Log* April 9 - April 16, 2004 vol. 41 no. 14

Flehsig, Arthur Oscar (1924-2003)

M.A. 1959, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

FLECHSIG - Arthur Flehsig, a retired marine ecologist whose career spanned 25 years, died on May 10 at age 78. Known as an aquanaut, he was part of a SeaLab II project in 1965 to monitor humans' responses to unprecedented periods on the sea floor and explore the feasibility of underwater villages. The experiment, which paralleled programs to put men on the moon, turned out to be the closest humanity has come to colonizing the bottom of the ocean. Employed by Scripps, Art was one of the few civilians on the mostly Navy crews and, at 40, one of the two oldest. In 1971, he continued his work with undersea projects in a different role. As a member of the topside crew, he took part in the Tektite II project, which involved the first all-female diving team. The women spent two weeks 50 feet below the sea surface off St. John Island in the Virgin Islands. Later, Art took part in the Hydrolab undersea habitat project off Grand Bahama Island. From 1975 to 1984, he served as a marine adviser for the University of California Cooperative Extension. He served in the Army medical corps during World War II, then earned a bachelor's degree in 1947 at the University of Illinois. An interest in fish, cultivated during his childhood, led him to pursue graduate work in zoology at UCLA, which awarded him a master's degree. In 1953, he began pursuing graduate studies at Scripps, which employed him full time beginning in

1959. Years later, retirement found him traveling extensively, from camping trips to Baja California to cruises to Central America, South America and the Caribbean. In addition to his wife of 49 years, survivors include his daughters, Katrin Flechsig of Austin, Texas, and Natasha Flechsig of Santa Cruz; sons, Karl of Los Gatos and Gregor of Encinitas; and five grandchildren. A family memorial is pending. (San Diego Union-Tribune). *The Scripps Log June 6 - June 12, 2003 vol. 40 no. 22*

Fleming, Thyra (1944-1999)

FLEMING - Sadly, our dear friend Thyra Fleming died yesterday, September 16, at Thornton Hospital. Thyra was employed at UCSD for almost 24 years and worked as an MSO in several Scripps areas such as MLRG, IMR, Sea Grant, MRD, CRD, CSI, JIMO, and the Director's Office. She fought a long, courageous battle with cancer. Thyra's positive, loving spirit will be deeply missed. Further details on services will be sent as soon as they are available. *The Scripps Log September 17-24, 1999 vol. 36 no. 37*

Floyd, Virginia Partlow (1936-2004)

Virginia Partlow Floyd passed away on June 19, 2004. Virginia was a past member of the SIO Administrative support staff who started her career in 1968 in the general accounting office at UCSD. In November 1971 she came to SIO to work in the Geological Research Division, where she worked for 10 years. She then transferred to the SIO Department and later to CalSpace, where she worked until her retirement in October 1992. Virginia is survived by her husband, Frank, and three children, Clifford, Kelly, and Baron Partlow. Condolences may be sent to Frank Floyd, P. O. Box 98, Port Mansfield, Texas 78598-0098. (Nona Crampton). *The Scripps Log June 25 - July 2, 2003 vol. 41 no. 25*

Fofonoff, Nicholas Paul (1929-2003)

We regret to report the passing of Dr. N.P. "Nick" Fofonoff of the Woods Hole Oceanographic Institution at his home in Falmouth, Mass. on December 18, 2003. A more complete account of his long career at WHOI, his many contributions to physical oceanography, his leadership of major research programs and initiatives, and his several awards and honors appears in an obituary notice at: http://www.whoi.edu/media/obits/n_fofonoff_obit.html . A kind and gentle man and an excellent scientist, he will be greatly missed by all who knew and worked with him. (John Gould and Bob Knox). *The Scripps Log February 13 - February 20, 2004 vol. 41 no. 6*

Ford, Richard Fiske (1934-2011)

Ph.D. 1965, Oceanography, Scripps Institution of Oceanography (UC San Diego)

RICHARD F. FORD - Scripps Institution of Oceanography alumnus Dr. Richard Fiske Ford passed away June 27, from an unexpected heart condition. Dick specialized in oceanography, marine ecology, population, and fisheries ecology of marine invertebrates and fishes. He stayed active after retirement, and served as a professor emeritus of biology at SDSU and as a research associate with Hubbs-Sea World Research Institute. He authored more than 70 refereed papers and more than 200 technical reports on water quality studies. Dick received his B.A. from Pomona College in 1956, a Masters' degree in biology from Stanford in 1959, and his Ph.D. in oceanography at Scripps Institution of Oceanography in 1965. He served as the director of the Center for Marine Studies at SDSU and was a consultant and advisor to many regulatory boards,

too numerous to list here. Dick worked closely with many of the research faculty at HSWRI and at SDSU. He travelled extensively over the world and was active in Mexico for many years conducting marine ecological studies. Dick will be missed as a very congenial and professional researcher and educator. His ashes were scattered at sea in a private ceremony on July 25. He is survived by his wife of 54 years, JoAnn, his two children, Joanna and Michael, and five grandchildren. (Don Kent, dkent@hswri.org, 619-226-3870). *The Scripps Log August 19-August 26, 2011 vol. 47 no. 33*

Ford, Rupert (1968-2001)

We are very sad to report that former SIO postdoc Rupert Ford died March 30 from a sudden illness while attending the EGS meeting in Nice. After his time (1994-95) at SIO, Ford accepted a faculty position at Imperial College in London. He had done important work on the interactions between waves and vortices, and on the dynamics of western boundary currents. He will be remembered by his colleagues for his prodigious mathematical talents, his generosity and good humor, and his infectious enthusiasm for science. (Rick Salmon, rsalmon@ucsd.edu). *The Scripps Log April 6 - April 13, 2001 vol. 38 no. 14*

Fowler, Celeste (1971-2004)

It is with great sadness that I let you know that Celeste Fowler passed away on March 21, 2004, after a long battle with cancer. Celeste decided to spend half a year with us here as a volunteer in my group. At that time, she combined her love of the ocean with her skills in computer graphics to produce an anatomically correct animation of a eucheata. Most recently, Celeste was a graduate student at Woods Hole. She was a pleasure to know, a hard worker, and we will miss her as a friend and colleague. (Jules S. Jaffe). *The Scripps Log March 26 - April 2, 2004 vol. 41 no. 12*

Francheteau, Jean Marie (1943-2010)

Ph.D. 1970, Oceanography, Scripps Institution of Oceanography (UC San Diego)

Jean Francheteau, Ph.D. Scripps 1970, passed away July 21 in St. Renan, near Brest, France, at the age of 67 after a long illness. He had retired from teaching at the University of Brest in Sept. 2009. Jean was a scientist with a great breadth of talents. He arrived at Scripps in 1966 after obtaining a diploma in mining engineering at the prestigious École Nationale Supérieure de la Métallurgie et de l'Industrie des Mines in Nancy, France. He chose Victor Vacquier, Sr., as his thesis supervisor and began collaborating with me in Vic's lab on the Scripps heat flow program. Among his many scientific contributions at Scripps his major one was, perhaps, to answer the problem that the equality of oceanic and continental heat flow values presented for plate tectonics. Jean and I were able to show that rather than being a problem, the heat flow data and the subsidence of the mid-ocean ridges had simple relationships with the age of the ocean floor that actually strongly supported plate tectonics. Following these collaborations, Vic and I left for three months at sea, expecting that Jean would compile all of his already-published papers as his thesis. But we found that, in our absence, Jean had written an entire thesis presenting a global examination of *Paleomagnetism and Plate Tectonics* without a single reference to his five already published papers! His was a truly remarkable achievement and it became a substantial part of the first book on plate tectonics that he co-authored with Xavier Le Pichon and Jean Bonin. Jean left Scripps at age 27, with an international reputation and an understanding of marine science at the highest level, and spent the remainder of his career in France, leading

expeditions, using submersibles, and authoring scientific papers on the discovery of active hydrothermal sites and massive mineral deposits with associated ecosystems at the crest of the East Pacific Rise. He worked all over the world, from the depths of the Atlantic and Pacific oceans to the heat of Afar and the heights of Tibet. He made fundamental contributions to plate tectonics and modern marine geology/geophysics. Jean was the complete scientist: a superbly trained French engineer, a participant in one of the major revolutions in the earth sciences, a marvelous sea-going colleague, and a great runner of expeditions. He was a person who shared so much of his science and his own personality with the world. He was both a first-class scientist and a remarkable person. His death leaves an irreplaceable hole in the hearts of all of those who had the opportunity to be close to him and his family. (John Sclater, jsclater@ucsd.edu, x43051). *The Scripps Log August 6 - August 13, 2010 vol. 46 no. 31*

Frautschy, Frances H. (1921-2004)

FRAUTSCHY - Frances Frautschy died on November 26, following a stroke the previous day. She was the widow of Jeffery Frautschy, deputy director and a mainstay of SIO from the 1950s to 1970s. Fran was born August 20, 1921. She was a grade-school teacher and school administrator at San Diego public schools for many years, served as an officer in Oceanids for a short time, and after retirement was a volunteer for Meals on Wheels and the Resale Shop of the Friends of the International Center of UCSD. She still lived in the house she and Jeff built in 1955 in Scripps Estates, where their three children grew up. A memorial service will be scheduled. (Betty Shor, gshor@ucsd.edu). *The Scripps Log December 3 - 10, 2004 vol. 41 no. 48*

Frieman, Edward Allen (1926-2013)

EDWARD A. FRIEMAN - It is with deep sadness that I report the passing of former Scripps Director Ed Frieman. Ed served as Scripps director from 1986 until his retirement from the post in 1996. He also was a research professor of physics at the Cecil H. and Ida M. Green Institute for Geophysics and Planetary Physics at Scripps and an adjunct professor of physics at UC San Diego. He made many great contributions to Scripps during his tenure here and remained active at Scripps even after retiring. As most of you know, Ed was a plasma physicist with research interests that extended into many physical science fields, including hydromagnetics, hydrodynamics, and astrophysics. Prior to joining Scripps, he was executive vice president for SAIC in La Jolla. He represented Scripps on the national and international scene, often shepherding Scripps through difficult times. As a tribute to Ed on his 70th birthday, his family created the Edward A. Frieman Prize for Excellence in Graduate Student Research, an annual honor to recognize Scripps graduate students who have truly distinguished themselves in their scientific work. So far, 18 Scripps students have been honored with this prize. Ed and his wife, Joy, have been good friends and strong supporters of Scripps and the broader community. He will be greatly missed by those of us who have worked with him over the years. Private funeral services will be held by his immediate family. An affirmation of his life may be held at Scripps at a later date. (Catherine Constable, cathy@ucsd.edu, x42827). *The Scripps Log April 12-19, 2013 vol. 49 no. 15*

Frigeri, Luciano G. (1944-2008)

LUCIANO G. FRIGERI - Luciano Frigeri passed away on March 28, 2008, as a result of an accident when his motorcycle and a car collided. Luciano was an SRA in MBRD. He came to the US from Italy in the early 1970s as a postdoc, and remained as a researcher in San Diego

primarily at TSRI, and later at Mitokor. He joined our lab in 2003, highly experienced in organellar protein biochemistry, and became the lead author on the first published diatom proteomics investigation. Luciano spent as much time helping others as he did doing his own lab work, and established a stabilizing influence in the lab. He truly enjoyed every aspect of life, and very much appreciated working at Scripps in the twilight of his career. In addition to regularly having lunch on the balcony of Hubbs Hall, where he could admire the ocean, in the summer months Luciano was a regular pier swimmer, which he would do along with students and postdocs in the department. Luciano's outstanding personal qualities were his friendliness and kindness, and he touched many lives in the time he was here. He was an ideal friend who was as much interested in understanding other's experiences as he was in sharing his, and he will be dearly missed. He is survived by his wife Nadia and daughter Federica. (Mark Hildebrand, mhildebrand@ucsd.edu, x20167). *The Scripps Log April 4 - April 11, 2008 vol. 44 no. 14*

Fuller, Raymond Nelson (1911-2005)

R. Nelson Fuller, Scripps's Public Affairs Officer from 1965 to 1978, died at the age of 93 on March 22 in Morro Bay, California. A native of Lafayette, Indiana, Fuller earned a bachelor's degree from the University of Texas. He worked as a newspaper editor, edited Rotary International News, served as a wire editor for AP, and worked in public relations at General Dynamics before his arrival at Scripps. During his busy years at Scripps, Fuller skillfully handled media coverage for distinguished visitors including Japanese Emperor Hirohito, Vice President Hubert Humphrey, and Vice President Spiro Agnew. Fuller joined one leg of the Zetes Expedition in 1966 and visited R/V *Alpha Helix* at the Great Barrier Reef. The Fullers had three sons, Raymond Nelson Fuller, Jr., the late John Fuller, and Frederick Fuller. His wife Bertha, two sons, four grandchildren, and three great-grandchildren survive him. (Jackie Parker). *The Scripps Log April 22 - April 29, 2005 vol. 42 no. 16*

Gayman, Wendell Russell (1928-2000)

Ph.D. 2000, Oceanography, Scripps Institution of Oceanography (UC San Diego)

We are sorry to report that Scripps's newest Ph.D., Dr. Wendell Gayman, passed away from cancer this week. Wendell defended his dissertation in 1970, but as explained in the SIO Log in November, did not receive his Ph.D. until 28 October 2000. (Bob Fisher and Joe Curray). *The Scripps Log December 15 - December 22, 2000 vol. 37 no. 50*

BETTER LATE THAN NEVER - (Friends, I decided to include the whole story....it's delightful!) "It was just one of those things." That's how Wendell Gayman describes his fascinating and bizarre trip en route to receiving his doctoral degree from Scripps. Gayman, a retired oceanographer and marine geologist, defended his thesis *Barrier Formation in the Gulf of California* at Scripps on August 11, 1970. He officially received his diploma on October 28, 2000. What happened? After his defense, Gayman had every intention of completing the steps necessary to "officially" receive his Ph.D. This included filing a copy of his thesis typewritten on high-quality paper. In the days before word processors and computers, however, that meant hiring a typist to do the job professionally. But with a family to support, Gayman didn't have the extra money to pay for the service. He left San Diego to start a career in marine mining and environmental consulting that took him to Washington D.C., Alaska, Thailand, Israel, Fiji, and other locations around the globe. Gayman had every intention of coming back to get his paperwork filed, but weeks turned into months and into years. "I thought about it a lot

throughout my career in marine science," said Gayman. But he never got around to finishing the last steps. Along the way, Theodore Chamberlain, a Scripps graduate and professor at Colorado State University, and a boyhood friend of Gayman's, kept after his friend to get it done. The issue was rushed into urgency in fall 2000, when Gayman was hospitalized with a grave illness. Chamberlain took it upon himself to get the process moving, and engaged Gayman's eldest daughter, Jennifer Sittel, and the Scripps Graduate Department to investigate how Gayman could finally receive his diploma. The action included Sittel and her husband Richard digging through Gayman's house to uncover an unopened envelope postmarked in 1970 concerning Gayman's dissertation. The document turned out to be the original signature page signed by members of Gayman's doctoral committee, including Scripps Professors Douglas Inman and Edward Goldberg. Marcelle Young in the Scripps Graduate Office juggled a handful of administrative requirements, including commissioning a fresh reproduction of Gayman's thesis for submission to the UCSD University Archivist. Finally, at a small ceremony at his daughter Teresa Pearce's house in Orange County, Calif., Gayman received his degree. "I'm very happy-it's really gratifying finally getting this-I should have done it sooner," said Dr. Gayman. "I learned science at Scripps. I've always been impressed with the professors at Scripps and I've always tried to follow the scientific methods I learned there. Certainly California and the nation need more schools like Scripps." *The Scripps Log November 24 - November 31, 2000 vol. 37 no. 47*

Gealy, Elizabeth Lee (1923-2009)

ELIZABETH LEE GEALY - Elizabeth (Betty) Lee Gealy, died at her home on Sept. 25. Betty was born in Fort Worth, Texas on June 22, 1923. She obtained bachelor's degrees in art and in geology from Southern Methodist University, and earned her M.A. and Ph.D. degrees in geology from Harvard University, graduating Phi Beta Kappa. She was a petroleum consultant in Dallas before moving to La Jolla in 1967. At Scripps Institution of Oceanography she was the Executive Staff Geologist of the Deep Sea Drilling Project. Subsequently, she managed her family's business interests, including a Texas cattle ranch. She was known for her keen intellect and broad interests. A memorial service will be held on Friday, Oct. 9, at 11 a.m. at St. James by the Sea Episcopal Church, La Jolla. In lieu of flowers, donations may be made to the Central Asia Institute, www.ikat.org, or to Episcopal Community Services. The family may be contacted at elgealy@gmail.com (from *San Diego Union-Tribune*). *The Scripps Log October 9 - October 16, 2009 vol. 45 no. 40*

Glosten, Lawrence Robert (1918-2010)

LAWRENCE ROBERT "LARRY" GLOSTEN - Lawrence Robert "Larry" Glosten, founder of The Glosten Associates, a Seattle naval architecture firm and a key player in the development of the research platform FLIP, died February 22, 2010 in his home on Bainbridge Island, Wash. He was 91. Glosten graduated from Webb Institute of Naval Architecture and Marine Engineering in 1940. Upon moving to Seattle in 1953, he entered a partnership with Phillip Spaulding and Robert Herbert. His own consulting practice was established in 1958 as L.R. Glosten, Naval Architect & Marine Engineer. Glosten established a personal reputation for honesty, integrity, and adherence to the highest ethical standards. He was a strong supporter of the education and professional development of younger engineers. Within his firm, he encouraged broad-minded inquiry, technical innovation, and publication of technical research and engineering advances. Glosten contributed many important papers to the body of technical literature, but was most proud of his work related to business ethics. Glosten was a leader in a number of innovative

programs contributing to the science of naval architecture and marine engineering. Most notable was his work on the instrumentation platform for Scripps Institution of Oceanography at UC San Diego, which became world-famous as FLIP. Glosten was called upon to assist in the design of FLIP because the job required "a serious out-of-the-box thinker," according to Scripps physical oceanographer Rob Pinkel. Glosten's involvement with FLIP continued for several decades as the platform was used for various experiments. He eventually became regarded as the preeminent consulting naval architect for the entire U.S. Research fleet. (Portions excerpted from Marinelink.com) (Robert Monroe, x24487). *The Scripps Log March 5 - March 12, 2010 vol. 46 no. 9*

Goldberg, Edward D. (1921-2008)

It is with sad hearts that we say goodbye to very special friend and colleague Ed Goldberg, a Scripps pioneer in marine chemistry, who passed away on March 7 after a prolonged illness. Until very recently Ed and his wife Kathe came in to take part in the mid-week "Scripps selective senior citizens bull session." A member of the legendary Libby-Urey-Brown Chicago geochemical group, Ed then joined Scripps in 1949. A seagoing and laboratory scientist, he focused his long and productive career on marine science as well as complex environmental problems facing the world. Among his most noted work was his identification of tributyltin as a toxic chemical in marine paint fouling California harbors, and in the creation of the 1975 EPA-sponsored Mussel Watch program to observe U.S. coastal marine pollution. He engineered a perfect solution to tagging sediment transport for me using nuclear radiation, only to find that the frequent chest x-rays required by the Atomic Energy Commission would cause higher radiation doses to the users than the irradiated apatite particles in the quartz grains! Ed Goldberg was a worldly scholar of great distinction, but also had a raunchy sense of humor, a taste for classic jazz, and a deep sense of humanity. He gave unstintingly to others, hence was widely held to be an excellent mentor, frequently cited as "one of the two best professors" at Scripps. Ed was a connoisseur of good wine, good food, and live theater -- particularly on the London stage. Above all, Ed was the kind of scientific humanitarian that the world so badly needs. We will truly miss him. A memorial service for Ed will be held at Scripps's Martin Johnson House (T-29) on Saturday, March 29, at 2 p.m. The family requests donations to the Scripps's Geosciences Research Division, payable to UC Regents, 9500 Gilman Drive, 0210, La Jolla, CA, 92093-0210. (Doug Inman, dinman@ucsd.edu, x41296). *The Scripps Log March 14 - March 21, 2008 vol. 44 no. 11*

Graham, Jeffrey Brent (1941-2011)

Ph.D. 1970, Marine Biology, Scripps Institution of Oceanography (UC San Diego)

Dr. Jeffrey Graham passed away yesterday afternoon (Thurs., Dec. 8) in his home here in San Diego after a long battle with melanoma. He is survived by his wife Rosemarie, three children, and five grandchildren. Jeff was an innovative vertebrate physiologist who was well esteemed by his colleagues and students. Jeff's research centered on comparative respiratory biology and related variables such as metabolism and body temperature. Added to this was an emphasis on species or groups characterized as being "transitional" between the normal life history and physiology of the group at large. Examples included the sea snake *Pelamis*, which has "returned to the sea," tunas and lamnid sharks, considered "super fish" because of their many adaptations for fast swimming, and air-breathing fishes, some of which have partially emerged onto land. His book, "Air-Breathing Fishes: Evolution, Diversity, and Adaptation," published in 1997, is the

authoritative reference on fish air breathing physiology. In addition to his book, Jeff is an author of more than 165 scientific papers, which have been cited more than 3,000 times by other researchers. Jeff will be severely missed by his colleagues, students, and friends. Memorial services are pending. (Nick Wegner, nwegner@ucsd.edu, x48044). *The Scripps Log December 9-December 16, 2011 vol. 47 no. 49*

Green, Cecil Howard (1900-2003)

Cecil H. Green, a long-time colleague of scientists at Scripps and the Cecil H. and Ida M. Green IGPP and a major benefactor of the Institution, died on Saturday, 12 April, in the Scripps Green Hospital where he lived for several years. Cecil was born at the very end of the nineteenth century and lived into the twenty-first; in less than four months he would have celebrated his 103rd birthday. Cecil developed his initial relationship with Scripps through Judith and Walter Munk; he helped the Munks with the plumbing in their new house in the 50s. Freeman Gilbert, while a student at MIT, first met Cecil in 1952. Cecil's first gift (1964) to IGPP was the Donal Hord sculpture, *Spring Stirring*, now in the garden near the Munk Conference Room. Probably the most important gift to IGPP was the endowment of the Green Scholar program in 1972. The first scholar was Xavier LePichon and the two most recent scholars (119th and 120th in order) are Gary Pavlis and Thorsten Becker. In 1978, Cecil helped the University of California and IGPP acquire the Cecil and Ida Green Piñon Flat Geophysical Observatory and the first station in the IDA network was installed in 1974 in Australia with funds made available by Cecil. In 1976, he helped Scripps purchase a modern multichannel seismic system for geophysical research at sea. Most recently, Cecil helped with the construction of the Roger and Ellen Revelle Laboratory at IGPP as well as the cable-stayed bridge -- Scripps Crossing. Cecil has played an integral role in the history of Scripps and IGPP, and we are all saddened by his death. (John Orcutt). *The Scripps Log April 18 - April 25, 2003 vol. 40 no. 15*

Greenbaum, Richard Harry (1927-2003)

GREENBAUM - Richard Greenbaum, born in San Diego on May 23, 1927, died in South Lake Tahoe, California, on April 27, 2003. He graduated from Coronado High School and San Diego State College, and served in the U.S. Navy. The best description for Richard Greenbaum would be "skier." Richard (Greenie to his friends) was a skier for over 55 years before dying of complications of lung cancer. He was an oceanographer at Scripps Institution of Oceanography, Hopkins Marine Station Stanford University, various oceanographic consulting companies, and president of his own company, Applied Oceanographics, before returning to Scripps as a Business Officer/MSO for the Marine Life Research Group and Institute of Marine Resources. Despite suffering a major head injury from a skiing accident in 1979, he returned to skiing, saying his legs were still okay. Upon retirement in 1981, Greenie made his home in South Lake Tahoe, averaging 30 to 50 days skiing per year at Heavenly Valley and other local resorts. He traveled summers to New Zealand for heli-skiing where between 1984 and 1997 he skied over 500,000 vertical feet, the record for a visitor at that time. Greenie is survived by his children, Fritz Greenbaum of Sonoma, California; Carrie Weischedel of Santa Ysabel, California; three grandchildren; his brother, Russell Greenbaum of San Diego; and several nephews and nieces. His ashes will be scattered at a later date in the mountains. (*San Diego Union-Tribune*). *The Scripps Log June 6 - June 12, 2003 vol. 40 no. 22*

Grow, Harry S. (1931-2000)

A TILE FOR HARRY - In memory of our friend Harry Grow, we are collecting donations for a memorial tile to be placed at the whale fountain in front of the aquarium. Send your checks payable to UC Regents, to the attention of Ginny Dobias, 0208. Donations will be accepted until July 14. After the tile is placed, we will have a memorial service for his SIO friends and family. If you like to sign the card, go see Ginny in the Graduate Office, x44794, vdobias@ucsd.edu.

The Scripps Log July 7 - July 14, 2000 vol. 37 no. 27

Hamilton, Marie Hall (1915-2001)

Marie Hall Hamilton passed away in San Diego on November 10, 2001. She was the widow of Dr. Edwin L. Hamilton, a prominent geologist who led the Seafloor Studies Section of the U.S. Naval Electronics Laboratory (NEL), participated on MidPac Expedition, and was credited with the discovery of the Mid-Pacific Mountain Range. The Hamiltons led a remarkable life, with wartime service in the Marine Corps, followed by a life in science. They were wonderful dancers. Marie Hamilton is survived by her three daughters. (Deborah Day). *The Scripps Log December 7- December 14, 2001 vol. 38 no. 49*

Hammel, Harold Theodore (1921-2005)

Dr. Harold "Ted" Hammel, professor emeritus at SIO, friend and colleague, passed away in Bloomington, Indiana, on February 23, from complications associated with chronic myeloid leukemia. He was 83 years old. Ted was a professor at the SIO Physiological Research Laboratory from 1967 to 1988. Prior to coming to SIO, Ted held academic positions as a physicist at Manhattan Los Alamos Laboratory and UC Los Alamos Scientific Lab, and as a physiologist at Cornell University, University of Pennsylvania, and Yale University. His main research as a physiologist was thermoregulation in animals. His research at SIO expanded into plant physiology, most notably to osmosis and its function in living systems. He participated in several expeditions with the R/V *Alpha Helix*. After leaving SIO, he remained very active in his field as an adjunct professor at the University of Indiana, and produced many scientific publications on the subject of osmosis. Ted was an enthusiastic and warm person who had numerous friends and colleagues in this country as well as in Europe. He frequently traveled to collaborate in experiments or to present lectures. He will be missed very much by his friends everywhere. Ted is survived by his wife Dorothy, their two daughters Nannette and Heidi, and grandchildren. A memorial service will be held in Bloomington on a date to be announced. (Edvard Hemmingsen, x42934). *The Scripps Log March 4 - March 12, 2005 vol. 42 no. 9*

Hand, Cadet Hammond Jr. (1920-2006)

Professor Cadet Hammond Hand, Jr. passed away at his home in Salmon Creek, California, on November 29. In addition to Wini, his wife of 64 years, he is survived by his two sons, Skip (Cadet III) and his wife Victoria, and Gary. Cadet, founding Director of the Bodega Marine Laboratory was a master invertebrate zoologist with an unmatched knowledge of the marine life of the American Pacific coast, and was also one of the world's leading coelenterate biologists. His career, which spanned 60 years, saw many of the great developments in our understanding of hydroids and sea anemones, some of the most common animals in the sea, to which he contributed greatly. A raconteur par excellence, with a striking sense of humor, Cadet commanded a staggering knowledge of the natural history, life history, anatomy, morphology, and biology of thousands of species. Jim Carlton and Daphne Fautin wrote that "Cadet was a

teacher, advisor, colleague, champion, and guide to us and to literally thousands of other academic children, grandchildren, and great-grandchildren ... and his lineage will continue ad infinitum. He set the bar for reminding us all to be the complete zoologist: that to command all aspects of a species' life, to understand how that species fits into the economy of nature, and to share that knowledge with inspiration and enthusiasm with others, was the sine qua non of a life well spent." Cadet's family has requested that contributions may be made in memory to the Cadet Hand Library at: Bodega Marine Laboratory, P. O. Box 247, Bodega Bay California 94923. *The Scripps Log* December 15 - 22, 2006 Volume 42 Number 50

Haxo, Francis Theodore (1921-2010)

FRANCIS THEODORE HAXO - Dr. Francis T. Haxo, professor emeritus of marine biology, died peacefully on June 10, 2010, surrounded by his family. A native of North Dakota and graduate of the University of North Dakota, Dr. Haxo attended graduate school at Stanford University, where he became interested in photobiology and was awarded a Ph.D. in 1947. During WWII he worked on developing sunscreens to protect military personnel from ultraviolet rays in tropical theaters of war. While doing a post-doctoral in L.R. Blinks' laboratory at Hopkins Marine Station, he made his best known scientific breakthroughs: 1) the Haxo-Blinks oxygen electrode, which is widely used ; and 2) the discovery of chromatic transients from which the critical concept arose of two differing methods for plants to photosynthesize. His first faculty appointment was in plant physiology at Johns Hopkins University, where he discovered a new carotenoid which became important as a colorant in the food industry. In 1952, Dr. Haxo joined the faculty of Scripps Institution of Oceanography where he pursued research on photosynthesis, plant pigments, and the physiology of algae. He is remembered by his students as a patient, generous, meticulous, gentlemanly scientist. Dr. Haxo is survived by his wife, Judith Haxo; his children, John, Philip, Theodore and Aileen Haxo, and Barbara H. Phillips; eight grandchildren and his sister, Ruth Schmoll, of Houston, Texas. The family suggests that gifts to honor Dr. Haxo be made to support research at Scripps Institution of Oceanography, UCSD. *The Scripps Log* July 2 - July 9, 2010 vol. 46 no. 26

Hedgpeth, Joel Walker (1911-2006)

HEDGPETH - Joel Hedgpeth died Friday, July 28, 2006, at age 94, in Hillsboro, Oregon. Hedgpeth worked at Scripps in the 1950s and taught a number of students, including longtime Scripps professor of oceanography, John McGowan. He received his undergraduate degree in 1933, his master's in 1940, and his Ph.D. in 1952 under Ralph I. Smith, all at UC Berkeley. He could speak knowledgeably about thousands of species of marine invertebrates and vertebrates around the world and was an expert on pycnogonids. He wrote hundreds of articles and essays, edited the massive volume one of the *Treatise on Marine Ecology & Paleoecology* in 1957, and edited and coauthored, along with Ed Ricketts (of *Cannery Row* fame), *Between Pacific Tides* through several editions. He spoke Welsh, German, French, Spanish, Russian, Portuguese, and Gaelic, and had an abiding interest in poetry of the sea, producing a 500-page unpublished manuscript on sea poetry. Hedgpeth served as director of the now-defunct Pacific Marine Station at Dillon Beach, CA, and the Oregon State University Marine Science Center. A more extended obituary (with minor errors about where and when he received his degrees and the treatise he edited) can be found at:

<http://www1.pressdemocrat.com/apps/pbcs.dll/article?AID=/20060801/NEWS/608010329/1033/NEWS01>. *The Scripps Log August 11 - 18, 2006 Volume 42 Number 32*

Hedrick, Leonard (1915-1998)

Leonard "Moon" Hedrick died 19 December 1998 at Villa Coronado Convalescent Center after a long decline in health. He was 83. He worked in the Research Support Shop for many years before retiring in the 1970s in order to devote full time to his outside business of building oceanographic equipment. The company is Ocean Instruments, now directed by his son John Hedrick. Moon was born in Knoxville, Iowa. He turned down a football scholarship to join the navy in 1935. The navy sent him to San Diego for basic training, and it became his permanent home. When he got out of the navy, he set up a machine shop in San Diego, and got a job at the Research Support Shop (now the MSDS). He was a highly skilled welder, and built many instruments, including box corers, net systems, and pressure cases for oceanographic research. When people from other oceanographic institutions wanted duplicates of Scripps instruments, they usually were referred to Ocean Instruments, because Moon knew how to make them. His instruments are now all over the world. While Old Scripps Building was being restored, Moon, as a volunteer, repaired and re-installed the brass stairway banister. It was not in the original plans, and we remember Moon saying that he had built this item in the first place (in the 1950s maybe?). He also built the metal balcony that faces eastward from the second floor, working only with photos of the original 1910 one that was on the other side of the building facing the ocean. (George and Betty Shor). *The Scripps Log January 8 - 15, 1999 vol. 36 no. 1*

Heinmiller, Robert H., Jr. (1940-2005)

Bob Heinmiller of Staunton, VA, died on April 25, 2005, following a long battle with cancer. He was 64. Many at Scripps knew him as the indefatigable seagoing operations manager of the WHOI Buoy Group in its early years, when the engineering of robust deep-sea moorings was in its infancy and there were many technical trials and errors to be surmounted. He played no small role in shepherding oceanographic moorings from being audacious to being reliable scientific tools. He left WHOI to be the MIT-based executive manager of the US-USSR Polymode project in the late 1970s. In 1980 he and his wife Susan Kubany founded Omnet, a pioneering company providing electronic communications and networking to scientists in pre-internet days. More complete obituary notices appear on both the WHOI (<http://www.whoi.edu/mr/obit.do?id=4238>) and Omnet (<http://www.omnet.com/>) websites. *The Scripps Log May 27 - June 5, 2005 vol. 42 no. 21*

Hester, Arthur W. (1931-2008)

ART HESTER - Art Hester, a long-time Scripps Oceanography employee working with the Oceanographic Data Facility, recently passed away. Art was an avid birdwatcher and cataloger of sea birds who kept logs of species sightings while on cruises and could identify most of the birds we saw without a reference book. A Celebration of Life in Art's honor will be held at the San Diego Natural History Museum January 27 at 5:30 p.m. Dorothy Hester may be contacted at 858-277-0852 for more information. (Norma Mantyla, normamantyla@gmail.com). *The Scripps Log January 16 - January 23, 2009 vol. 45 no. 2*

Higgins, William (1952-2001)

We are sad to announce that Bill Higgins, 49, died suddenly last Tuesday, October 16. Bill had worked as the system administrator for the Climate Computing Facility from 1994 to 2001 and was a friend to all in CRD. He was an avid scuba diver and a certified dive master, having taught several Scripps colleagues how to dive. He also had been a popular volunteer at the Birch Aquarium where he would scuba dive in the kelp tank and feed the fish while talking with the audience. He is survived by his three children, twins Eric and Erica, 17; and Evan, 15; his brother, Donald; and long time companion, Kay Skelly. A memorial service will be held at the Martin Johnson House on October 31 at 2 p.m. (Art Miller and Dan Cayan). *The Scripps Log* October 26 - November 2, 2001 vol. 38 no. 43

Hinton, Elizabeth Leslie Forster (1917-2005)

HINTON - We are sad to announce the death of Sam Hinton's wife, Leslie, on Sunday, November 20, after an illness of several months. Sam was curator of the Scripps Aquarium-Museum for many years beginning in 1945. He and Leslie lived on the Scripps campus at 27 Discovery Way (the site of the current hydraulics lab) until 1958, when they moved up to Scripps Estates to their current family home. Leslie was 88 years old, and is survived by Sam, their two children Matt and Leanne, two grandchildren and one great grandson. *The Scripps Log* December 2 - December 9, 2005 vol. 41 no. 48

Hinton, Sam Duffie (1917-2009)

SAM HINTON - Sam Hinton died Sept. 10 at the age of 92. Hinton served as aquarium director from 1946-1964 and was instrumental in transforming the aquarium from a small wooden structure on the Scripps Institution of Oceanography campus to the larger Scripps Aquarium, which many San Diego adults fondly remember visiting as a child. Scripps Aquarium opened in 1950 and remained the institution's public outreach center until Birch Aquarium at Scripps was built in 1992. Hinton was tirelessly dedicated to the aquarium, serving not only as the director, but also as the artist for most of the aquarium exhibits and the public information officer for news media. He produced more than 1,200 installments of a weekly newspaper feature called "The Ocean World," and never hesitated to answer the endless questions from visitors. Nationally, Hinton is considered one of the fathers of the folk-song movement and recorded more than a dozen solo albums during his lifetime. After his retirement in 1980, Hinton devoted himself to performing full-time at local school assemblies, encouraging thousands of children each year to be kind to others and the environment through humorous songs. The City of San Diego honored him in 1988 by designating a day as Sam Hinton Day. Hinton was born in 1917 in Tulsa, Okla. He earned a degree in zoology in 1940 from UCLA and married Leslie Forester, also an artist and musician. He served as director of the Desert Museum in Palm Springs before coming to Scripps Institution of Oceanography at UC San Diego in 1943. He spent the next five decades working for the university. Hinton is survived by his daughter, Leanne; his son, Matthew; two grandchildren; and a great grandchild. (Jessica Crawford, jzcrawford@ucsd.edu, x20774. *The Scripps Log* September 18 - September 25, 2009 vol. 45 no. 37

Hochachka, Peter William (1937-2002)

It is my sad duty to inform you that Peter Hochachka has died after a long battle with cancer. Peter was a professor at the University of British Columbia, and a leading figure in comparative animal biochemistry and physiology who inspired more three generations of students, including

myself. Peter travelled all over the world, seeking interesting problems in the field of biochemical and physiological adaptation, particularly the management of oxygen supply to living tissue during intervals such as diving. Seals, turtles, tunas, and air breathing fishes were all subjects that Peter exploited, as part of his insatiable interest in understanding the cellular mechanisms for either sustaining oxygen delivery, or living without it. George Somero spent time in Peter's UBC laboratory, before joining the SIO faculty in the early 1970s. Peter and George had a long and productive collaboration, along with their students and post-docs (and the huskies). Hochachka and Somero's book on Biochemical Adaptation was first published in 1973, and appeared in its third iteration this year. Over the course of his career, Peter gave many lectures at SIO. He was a highly stimulating colleague with an immense curiosity about science, and the ability to engage almost anyone in vigorous discussion of these issues. Peter was my friend, whom I had seen many times and in many remarkable places, such as the Amazon, India, and on the slopes at Whistler, and with whom there were always long and interesting conversations. He will be greatly missed by all of his colleagues in the scientific community, and everyone who had the pleasure of knowing him. (Jeffrey Graham). *The Scripps Log* September 20 - September 27, 2002 vol. 39 no. 37

Hollister, Charles Davis (1936-1999)

The Woods Hole Oceanographic Institution announces with great sorrow the death of Charles Davis Hollister, on August 23, a 63-year old senior scientist in the Geology and Geophysics Department and vice president of the Corporation. He died hiking while on vacation with family members in Wyoming. Charley received his B.S. degree from Oregon State University in 1960 and his Ph.D. degree in geology in 1967 from Columbia University. He worked as an oceanographer at the U.S. Geological Survey in 1961, and while in graduate school was a Ford Foundation Fellow in oceanography and a research assistant at Lamont-Doherty Geological Observatory. He was the author of more than 90 scientific papers and six books. Charley's long relationship with WHOI began in 1967 when he joined the staff as an assistant scientist in the Geology and Geophysics Department. He was promoted to associate scientist in 1971 and to senior scientist in 1979. Charley began educating the next generation of oceanographers in 1979 when he was appointed the fourth dean of graduate studies, a position he held for ten years. In 1989, he became vice president of the corporation, helping the institution raise funds, working more closely with WHOI's governing board, and developing new friends and supporters around the country. Considered by many the father of subseabed disposal, he spent many years of his career studying the deep sea floor and its potential for handling hazardous wastes. An expert in the dynamics of sediment transport, Charley was among the first oceanographers to realize that large areas of the deep-sea floor, a region long thought to be tranquil, are swept by strong currents or benthic storms. He documented the existence of these storms and measured their strong currents during the High Energy Benthic Boundary Layer Experiment, a program he organized in the 1970s. Charley also started the development of a giant piston coring system that pushed the boundaries of seafloor sampling. A 100-foot long core he took in the 1970s dubbed "Super Straw" documented the longest continuous record, 65 million years, of ocean basin history. A world-renowned marine geologist, Charley was also an avid mountain climber, a hunter and fly fisherman, and an alpine/cross-country skier. He made the first ascent of Antarctica's highest peak, Vinson Massif, as part of the first mountaineering expedition to Sentinel Range, climbing five of the range's six highest peaks and earning the John Oliver La Gorce Medal from the National Geographic Society. Charley later climbed peaks in Europe and

Asia, including the Himalayas, and was one of the first Americans to trek in Bhutan. In lieu of flowers, donations in his memory may be made to WHOI, c/o Development Office, Fenno House, Woods Hole, MA 02543. All of Charley's close friends and associates at Scripps join the entire oceanographic community in expressing our deepest and most sincere sympathy to his wife, Jacquie, and to all his family and friends at WHOI. *The Scripps Log August 27 - September 3, 1999 vol. 36 no. 34*

Holm-Hansen, Tanya S. (1924-2006)

We are saddened to report that the beloved wife of our friend and colleague Osmund Holm-Hansen, Tanya, died unexpectedly on February 15. More details later. You may contact the family at oholmhansen@ucsd.edu or 858-534-2339. *The Scripps Log March 3 - March 10, 2006 vol. 42 no .9*

Huang, Luzhi (-2010)

LUZHI HUANG - Visiting Scripps graduate student Luzhi Huang succumbed to accidental drowning in a swimming pool last Saturday, April 10. Luzhi worked in the Center for Marine Biotechnology and Biomedicine, first with Bill Fenical and most recently with Paul Jensen. She'd been at Scripps since 2008 and studied the evolution of secondary metabolite genes in marine bacteria. Luzhi was a spirited young woman who traveled far from her home in China to pursue her dream of an academic career. Her talents were widely recognized with numerous college honors including a fellowship from the Chinese Government that allowed her to come to Scripps for a two-year exchange program. Luzhi showed great promise as a scientist and her hard work, good nature, and enthusiasm for life endeared her to those of us fortunate enough to have known her. Donations to help Luzhi's family with travel and funeral expenses are being collected by the American Chinese Culture and Education Foundation. Donations of cash and check can be made on-site at 99 Ranch Market (7330 Clairemont Mesa Blvd, San Diego) April 16, 2-9 p.m. and April 17-18, 9 a.m-9 p.m. Online donations can be made at <http://www.accef.net/accef-online-donation.htm>. Donations are also being accepted at Scripps by Paul Jensen (x47322, pjensen@ucsd.edu). Checks should be made out to "ACCEF" and be sure to put "UCSD2010" in the memo section. Information about a memorial service will be forthcoming. *The Scripps Log April 16 - April 23, 2010 vol. 46 no. 15*

Hubbs, Clark (1921-2008)

CLARK HUBBS - I am sad to pass on news of the death of Dr. Clark Hubbs on Sunday, Feb. 3. Clark is the son of Carl Hubbs, for whom Scripps Institution of Oceanography's Hubbs Hall is named. He was a longtime professor at the University of Texas where he enjoyed a productive career as an ichthyologist and conservation biologist. Clark and his wife, Catherine, established the Carl L. and Laura C. Hubbs Marine Biology Endowment at Scripps to support student research. (Richard Rosenblatt, rosenblatt@ucsd.edu, x42199). *The Scripps Log February 8 - February 15, 2008 vol. 44 no. 6*

Huckabay, William B. (1920-1999)

Another old friend of Scripps, Bill Huckabay, recently passed away in Austin, Texas. Although Bill was never a Scripps employee, he was a major contributor to bringing Scripps the capability of seismic reflection profiling, one of the most important and basic tools for geological exploration at sea. For many years, Bill worked as a consultant for the Sea Floor Studies Group

of what was then called the Navy Electronics Lab in Point Loma, developing seismic reflection profiling techniques, mainly for use by Dave Moore. I enjoyed a long and mutually beneficial Scripps-NEL collaboration with Dave, Bill, Ed Hamilton, Ed Buffington, and others while we at Scripps also acquired this technology. Bill personally supervised the design, shipboard installation, and operation of the equipment for all of the first generation of geological papers with a Scripps byline based on interpretation of seismic reflection profiles. (Joe Curray). *The Scripps Log February 5 - 12 , 1999 vol. 36 no. 5*

Isaacs, MaryCarol (1917-2008)

MARYCAROL ISAACS - MaryCarol Isaacs passed away on March 19, 2008 at her home in Scripps Estates. She was the widow of John D. Isaacs, Scripps Professor from 1947 until his death in 1980. She is survived by her four children, Ann Katherine, Caroline Marie, Jon Berkeley, and Kenneth Howard Zander Isaacs; and by eight grandchildren and four great-grandchildren. MaryCarol was born in Portland, Oregon, on Nov. 7, 1917. She grew up in Portland, graduating from St. Helen's Hall and receiving her Bachelor's degree from Oregon State, a member of the Kappa Kappa Gamma sorority. She met John Isaacs; they fell in love and were married on Nov. 11, 1938, just four days after her twenty-first birthday. The Isaacs lived in Astoria, Oregon: first on a sailing vessel, the *Sir William Taylor*, and then on a houseboat anchored in the John Day River. MaryCarol and John fished for salmon and albacore in their North Sea trawler, the *Landego*. Saltwater, fish, and the Pacific were to remain at the center of their lives for many years. In 1943, MaryCarol and John moved to Berkeley where John finished his engineering degree and was given responsibility for the wartime Waves Project. MaryCarol, then with daughter Kathy, was part of the shore crew, traveling up and down the Pacific coast as John used a DUK vehicle to map the underwater topography. In 1947, the Isaacs came to Scripps at the invitation of Roger Revelle. MaryCarol, with the couple's growing family, lived in Encinitas. Lifelong friendships with Ellen and Roger Revelle began. MaryCarol was not only very busy as a mother of four young children, she often held the fort for months while John was away on the long oceanographic expeditions of the 1950s. She was also a member of the Oceanids and active in the People to People project. In 1959, the Isaacs moved to Rancho Santa Fe. MaryCarol's scientific support activities included memorable parties, not the least of which was the annual picnic for MLRG students and their families - rafting and pony rides included. After John's death, she dedicated much effort to ensuring that John's book, *John Isaacs and his Oceans*, written with Daniel Berhman, was finished and published. She ensured that the John Isaacs papers were given to the Scripps library, and she and the family co-funded the John D. Isaacs Chair in Natural Philosophy. In 1988, she moved to Scripps Estates, a longtime desire, to keep in closer touch with Scripps and her many friends among the Scripps community. She contributed to the MaryCarol Isaacs Women's History project, working with the Scripps Library. MaryCarol was a remarkable person, a strong and intelligent wife, mother, and friend. She loved to travel and accompanied John and her children as often as possible at scientific conferences. She was thrilled to continue to be part of oceanographic research, and touched to know that thanks to Kevin Hardy, some thirty "MaryCarol" capsules were and are still exploring the deep trenches of the seven seas. She will be missed. A memorial celebration is being planned for later in the year. (Lawrence Bailey, lbailey@ucsd.edu, x47171). *The Scripps Log March 28 - April 4, 2008 vol. 44 no. 13*

Jaffe, Alan (1945-2010)

ALAN JAFFE - Late last month, Scripps Institution of Oceanography lost a very special friend: Alan Jaffe. Alan was not only a financial supporter of Scripps, he befriended many of the students and scientists he met here. He loved to walk down the hill from his home in Scripps Estates to the Scripps campus. He often brought friends to the pier or the picnic tables at Snackropolis. Alan and his wife Nora were founding members of the E.W. Scripps Associates in 1993 and continued their membership every year since, frequently attending the quarterly events and introducing their friends to Scripps. Alan and Nora supported several students over the years, most recently helping Danny Brothers and Jeff Dingler complete their degrees. Some of the major gifts they made over the years included naming the garden of the Robert Paine Scripps Forum for Science, Society and the Environment in honor of their close friend Judith Munk, helping to restore the Scripps Director's House, and supporting the seahorse exhibit at Birch Aquarium at Scripps. In recognition for their support, they were long-time members of the Scripps Director's Circle. Alan was the type of person who didn't just give money. He wanted to be involved in the things he cared about. He provided workers for the Old Director's House renovation from his company and reviewed the plans and made suggestions. He went on field trips to Lake Tahoe and the Salton Sea with the students and scientists he supported. He trained and volunteered as a docent at Birch Aquarium. The aquarium, in particular, was a longstanding love and interest of Alan's. He and Nora together with friends were enthusiastic supporters of aquarium tanks and shows (especially those featuring the very successful seahorse breeding program) for more than twenty years. Alan loved to visit the octopus they sponsored, and he frequently brought friends to the aquarium for a behind-the-scenes view of the tanks. This is why the family is suggesting gifts go to the Alan Jaffe Fund at Birch Aquarium at Scripps in lieu of flowers. Alan lived a full life with a wonderful family and many friends. There will be a celebration of Alan's life at the Scripps Seaside Forum that he helped to create at 5 p.m. on Monday, August 16. For more details about the celebration and how to make a gift, visit www.alan-jaffe.com. (Lawrence Bailey, lbailey@ucsd.edu, x47171). *The Scripps Log* August 13 - August 20, 2010 vol. 46 no. 32

Johnson, Curtis Duane (1929-2013)

CAPTAIN CURTIS JOHNSON - Captain Curtis Johnson passed away peacefully on Feb. 28, 2013, at the age of 84. Captain Johnson began his career at Scripps Oceanography in 1964 as an Able Bodied seaman and worked his way up through the ranks sailing on the *Argo*, *Alexander Agassiz*, *Oconostota*, *Horizon*, *Thomas Washington*, *Melville*, and probably a few others. In the early 1980's Curt was appointed Master of R/V *Thomas Washington* and finished his career in 1989 as Master of *Melville*. Curt was a captain who quietly led by example and was well respected and liked by the crews who sailed with him. Never flustered, he coolly and calmly rescued many young mates who had gotten themselves into difficult ship-handling situations with miles of wire over the side. Curt's passionate pastime at sea was wood carving and some may remember the Winchester lever-action 30-30 he carved that was so realistic-looking it nearly got him into trouble with more than one port authority for not declaring his firearms! Curt retired to Campo in San Diego's east county where he built his dream home (a log cabin) from scratch and where he continued to live until the end. He is survived by his wife

Nancy. A memorial service will be held at Our Redeemer Lutheran Church, 1370 Euclid Ave., San Diego, at 11 a.m. on Saturday, March 9. (Eric Buck, ebuck@ucsd.edu, x45568). *The Scripps Log* March 8-15, 2013 vol. 49 no. 10

Johnson, Robert Karl (1944-2000)

Ph.D. 1972, Marine Biology, Scripps Institution of Oceanography (UC San Diego)

It is my sad duty to notify you of the untimely death of Robert Karl Johnson, on May 10, of an uncontrollable internal hemorrhage. Bob was awarded a Ph.D. at SIO in 1972. His dissertation was a classification and analysis of the distribution of the deep-sea fish family Scopelarchidae (pearleyes). He became established as an authority on deep sea fishes through the publication of monographs on that family and the related Evermannellidae (sabertooth fishes), as well as shorter papers on other groups. He later collected reef fishes in Belize and published extensively on ecology and community structure of Caribbean reef fishes. Bob began his career at the Chesapeake Marine Laboratory, but soon moved to the Field Museum of Natural History in Chicago, where he was curator of fishes. He later joined the faculty of the Grice Marine Laboratory of the College of Charleston, South Carolina. He is survived by his wife, Pat, whom he met at the Field Museum. The field has lost a brilliant scientist in mid-career, and many of us have lost a valued friend and shipmate. (Richard Rosenblatt, x42199). *The Scripps Log* June 23 - June 30, 2000 vol. 37 no. 25

Joseph, James (1930-2009)

JAMES JOSEPH - Dr. James Joseph, director of the Inter-American Tropical Tuna Commission (IATTC) for 30 years, from 1969 to 1999, died on December 16, 2009. Dr. Joseph also served as a research associate at Scripps Institution of Oceanography from 1969-1993. Many changes took place in the tuna fisheries of the world, especially those of the eastern Pacific Ocean (EPO), during the three decades during which Dr. Joseph was director of the IATTC. Larger, more efficient boats were constructed and many of them were registered in nations that had not previously been important participants in the fishery. The concept of 200-mile Exclusive Economic Zones was not widely recognized at the beginning of this period, but by the end of his tenure these are vigorously enforced by most nations. The catches of tunas in the EPO and in other parts of the world increased greatly during this period, and many stocks of tunas now appear to be fully exploited. As a result, many fisheries for tunas are now regulated. Dr. Joseph was definitely the right person at the right time for director of the IATTC. His vision and leadership were crucial in resolving the often contentious differences that arose among the countries, industries, and people involved. He commanded the highest respect and admiration for his extensive knowledge of all matters related to fisheries, his dedication, his fairness, and his extraordinary ability to get things done. He had the gift of finding the common ground among conflicting parties, and of bringing about consensus when none seemed possible. His reputation for unimpeachable probity made him perhaps the most widely respected and admired figure in international fisheries management. After his retirement in 1999, Dr. Joseph served as a consultant for various organizations in many parts of the world. At the time of this death, he was Chairman of the Science Committee of the International Seafood Sustainability Foundation. (William H. Bayliff, wbyliff@iattc.org, 858-546-7025). *The Scripps Log* January 15 - January 22, 2010 vol. 46 no. 2

Kanamitsu, Masao (1943-2011)

MASAO KANAMITSU - Masao Kanamitsu, whose pioneering efforts transformed the ability of scientists to detect climate patterns over the course of decades, died of cancer Aug. 17 at his home in Del Mar, Calif. He was 67. The researcher known to friends and family simply as "Kana" was well known nationally and internationally. Kanamitsu helped develop the framework for numerical modeling—the numerical representation of the atmosphere formed by coding the essential equations that govern its state and how it evolves with time. Thousands of climate scientists benefitted from his contributions to a research project called "Reanalysis," begun while he was a scientist at the National Weather Service (NWS). The comprehensive, dynamically consistent reanalysis of historical meteorological data dating back to the 1940s gave the field a new means for studying and predicting climate behavior. The 1996 reanalysis paper published in the Bulletin of the American Meteorological Society that he co-authored has been called the most cited paper in the history of geosciences, having been referenced in nearly 9,000 papers to date since its publication. Kanamitsu's work at Scripps Oceanography was aimed at improving extended range prediction—forecasting the atmosphere at time leads from a few weeks to decades in advance. This led him to explore new ways to model influences upon the atmosphere by processes operating at its lower boundary, involving both the ocean and the land surface. By his key contributions to the Reanalysis project, Kanamitsu firmly established himself as a leading climate expert. He subsequently became one of the world's most eminent leaders in the science of seasonal climate modeling. His work is recognized for major contributions in several areas of climate science, including downscaling from global-scale to regional-scale climate simulations, the impact of soil moisture and the predictability issues of seasonal climate. Kanamitsu came to Scripps in 2001. Previously he had joined the National Meteorological Center in 1985 and was a senior scientist at the center—which later became the National Center for Environmental Prediction—before becoming a research meteorologist at Scripps. Earlier in his career, Kanamitsu had worked at the European Centre for Medium-Range Weather Forecasts and the Numerical Weather Prediction Division of the Japan Meteorological Agency. Kanamitsu was born in Kumamoto, Japan, on November 6, 1943, and was raised in Sapporo, Japan. He received B.S. and M.S. degrees in geophysics from Hokkaido University in his native Japan before receiving his Ph.D. in meteorology from Florida State University in 1975. At Kanamitsu's request there will be no funeral or memorial service. He is survived by his wife Mariko, daughter Tomoko and sister Yoko Okuyama. (Scripps Communications, scrippsnews@ucsd.edu, x43624). *The Scripps Log August 26-September 2, 2011 vol. 47 no. 34*

Keeling, Charles David (1928-2005)

Once again I have the sad duty to inform you of the passing of a respected and loved member of the Scripps community. Dave Keeling died Monday evening of a sudden and unexpected heart attack, following a short hike in his beloved Montana. As you know, Dave's work proved to be amongst the most consequential scientific achievements of the 20th century. His loss is a loss for the world, a loss for Scripps Institution, a loss for his friends and colleagues, a highly personal loss to me, but most of all, a loss to his family. Please send your condolences to the Keeling Family, 572 Keeling Lane, Hamilton, Montana 59840. Memorial service plans will be forthcoming. --- Charlie Kennel. *The Scripps Log June 24 - July 1, 2005 vol. 42 no. 25*

THOUGHTS ON CHARLES DAVID KEELING (1928-2005) - It is difficult to single out scientists whose contributions are so deep, unique, and valuable as to clearly rank with the very

best and most prominent. No such difficulty arises when contemplating the contributions of Charles David Keeling, whose research career spanned the last half century. It is to Keeling's everlasting credit that he recognized the importance of serial measurements of atmospheric chemistry, and that he insisted on the highest possible quality for such measurements. By monitoring chemical changes in the atmosphere at high precision during several decades of substantial and irreversible change, he documented the crucial element of the great geophysical experiment that humankind is now performing on the life-support systems of the home planet. Every month, every year, and every decade of documentation is precious. The fact that there is a detailed record of carbon dioxide starting from the late 1950s (rather than, say, the 1970s or 1980s) we owe to Dave Keeling's insistence on keeping track and on doing it right. Dave was intensely aware of the broader ramifications of the ongoing human experiment, and he worried about what the climates of the future would look like. "Everyone is talking about doubling the CO₂," he once said to me, "but what about tripling and quadrupling - we don't have the faintest notion of what that will do." He was aware of the ramifications, but he was averse to making statements with policy implications that would go beyond of what we actually know. He preferred to let the data speak. It was a good strategy, and it fit his unassuming manner and his trust in solid data and transparent logic. Now that the rising carbon dioxide is affecting the pH of the surface waters of the sea, we can think back on the very beginnings of Dave's career, in 1954, when he decided to study the effect of atmospheric carbon dioxide on the pH of rivers and lakes during his postdoctoral time in Pasadena (perhaps to indulge both a love of chemistry and of hiking). He ended up giving us the tools and data to understand what is happening to the pH of the entire ocean, a change with many implications. The Keeling Curve, the ever-rising line describing carbon dioxide concentration in the atmosphere with the attendant annual wiggles, has become the icon of global change the world over. It represents what's happening on the planet, and it reflects well on what is going on at Scripps. Yes, he had coffee with the rest of us. And yes, he was great company, a caring man generous in sharing his thoughts, wise in appreciating our limits of knowledge, and hard to dislodge in argument. And we miss him very much. -- (Wolf Berger). *The Scripps Log July 15 - July 22, 2005 vol. 42 no. 28*

Keys, Ansel Benjamin (1904-2004)

M.A. 1928, Oceanography, Scripps Institution of Oceanography (UC Berkeley)

Ph.D. 1930, Biological Oceanography, Scripps Institution of Oceanography (UC Berkeley)

Ansel Keys, who at 100 years old had held the distinction of being Scripps Institution's oldest living alumnus, died Saturday, November 20. Just last month he received the Professional Achievement Award from the UCSD Alumni Association. Keys received a Ph.D. in oceanography from Scripps in 1930. Although he studied fish biology and physiology at Scripps, he spent his career studying the physiology of humans. Among his many notable career achievements were the development of K-rations during World War II and his landmark studies of the relationship between diet and blood cholesterol levels. For more information about Keys, visit http://scrippsnews.ucsd.edu/article_detail.cfm?article_num=650 (Scripps Communications, x43624). *The Scripps Log November 26 - December 3, 2004 vol. 41 no. 47*

King, Bob (1937-2012)

BOB KING - The Marine Physical Laboratory (MPL) is sad to report the passing earlier this week of Bob King, UCSD/MPL's Facility Security Supervisor (retired). Bob was born in

Evansville, Indiana, in 1937. At age 17 he enlisted in the Navy, quickly advancing from a Gunnery Yeoman position to positions within various security and communications offices. After being honorably discharged from the Navy in 1967, Bob was a document controller for four years at Gulf General Atomic in San Diego, then moved to New York and briefly worked as a bookkeeper for a towing company. He returned to San Diego in 1972 and worked for a few months as a dispatcher at Rohr Corporation until he was hired by Science Applications in La Jolla as a Facility Security Supervisor. Bob brought his security expertise to UCSD in August 1978 when he was hired as a security consultant for the purpose of relocating the Campus Security office to Point Loma to serve as the focal point for MPL, general campus, and Scripps Institution of Oceanography security functions. His three-month consulting assignment evolved into a 32-year career appointment in October 1978 when he became UCSD's Facility Security Supervisor. Bob established procedures in compliance with the Industrial Security Manual; trained and supervised security personnel; processed personnel clearances, visit authorizations, and badge requests; created and managed a document control system; organized meetings for researchers, consultants, and government personnel; and participated in annual inspections by the DoD. After Bob retired from UCSD in September 2010 he continued to volunteer his services as needed. Throughout the years Bob was consistently recognized for his professional standards and spirit of dedication in his management of UCSD's Industrial Security Program. Bob passed peacefully on Monday, April 16, and will be buried in a private ceremony at Miramar National Cemetery. Condolences may be sent to his wife, Lupe King, in care of Juanita Cantero at MPL, Mail Code 0701. (Anne Footer, afooter@ucsd.edu, x41802). *The Scripps Log April 20-April 27, 2012 vol. 48 no. 16*

Koide, Minoru (1926-2008)

MINORU KOIDE - Minoru Koide, known to us as the geochemist who worked with Scripps Professor Edward Goldberg, especially on dating techniques of sediments and rocks through the use of radioisotopes, passed away Nov. 23, after a battle with cancer. Prof. Goldberg always talked about Min's golden hands in the laboratory, for which he certainly was the mainstay. Min participated in many of the early Scripps expeditions covering the world's oceans. After Operation Wigwam, Min developed radio-isotope methods to measure the radioactive products resulting from nuclear tests conducted by the U.S. and Russia. In the 1960s, he developed many analytical methods used in geochronology. The new methods used isotopes of natural occurring elements the sediments and seawater. With this methodology, sediments could be dated and used as chemical tracers. In the late 1960-1970s, Min, in collaboration with Dr. Rudy Bieri, developed a mass spectrometer capable of measuring trace amounts of inert gasses in seawater and sediment. In the early 1970s, Min developed methods to measure mercury, sulfur, and selenium in seawater and glacial ice from Greenland. This was the beginning of the study of the environmental investigation of man's activities on the oceans. This was followed by studies of the influx of heavy elements (lead, mercury, zinc) into the ocean environment and its affect on the marine sea life's food chain. During his many years at Scripps he acted as a friend, mentor, and teacher to many of the Ph.D. students working in geochemical oceanography. All of his work contributed to a better understanding of our planet. After retirement Min made woodworking a central passion, which already began when the Koide family was interned along

with 110,000 other Japanese Americans during World War II. One of his earliest creations was a chest of drawers ripped from one of the barbed wire fence posts. Beginning Dec. 2, 2008, the Japanese Friendship Garden at Balboa Park will be displaying his work through February 2009. (Joris Gieskes, jgieskes@ucsd.edu, x44257). *The Scripps Log December 5 - December 12, 2008* vol. 44 no. 49

LaFond, Eugene Cecil (1909-2002)

LAFOND - Eugene Cecil LaFond was a quiet man, a scientist and statesman of science, who had a worldwide effect on the new field of oceanography. He died peacefully in his sleep at home Sunday, December 1, a few days shy of his 93rd birthday. His wife of 67 years, Katherine Gehring LaFond, his constant companion and scientific partner, and two sons, William and Robert, survive him. Though he traveled worldwide, Gene always considered San Diego his home. His family moved here in 1921, and he graduated from Sweetwater High School (1928) and San Diego State College (1932). He was awarded an honorary D.Sc. from Andhra University, India, in 1956. In the course of his remarkable career, Gene worked at Scripps; contributed to the content of "The Oceans: Their Physics, Chemistry, and General Biology," the first modern textbook in oceanography; was a pioneer SCUBA diver; dove off California in the bathyscaphe *Trieste* and other deep sea research submersibles; conducted experiments under Arctic ice in U.S. Navy submarines near the North Pole; led construction of an oceanographic tower off Mission Beach, initiated segments of the two year Scripps NAGA Expedition to Thailand and Vietnam in 1960-62; participated in the Bikini atomic bomb test, and under a Fulbright Grant; and worked in India with its scientists to establish the study and application of oceanography to that subcontinent. While attending San Diego State College, Eugene met chemistry student Katherine Gehring. Shortly afterwards, Katherine was hired at Scripps as a chemistry laboratory assistant in 1933 by its second director T. Wayland Vaughan. The institution decided they needed to hire another technical assistant, and Katherine alerted Gene to the opportunity. Gene was hired that same year. Gene and Katherine married secretly in 1935. They initially kept their marriage hidden because University of California nepotism rules specifically forbade the employment of a married couple in the same laboratory. How well did they keep the secret? Katherine recalls with a smile, "People believed what they wanted to." Katherine and Eugene took a leave of absence from Scripps on August 1, 1936, to allow him to attend class at Berkeley, and they finally made their marriage public. LaFond initiated the design and installation of the derrick-like structure offshore of Crystal Pier, Mission Beach. Known alternately as the "NEL Tower," the "Mission Beach Tower," or the "LaFond Tower," the unmanned oceanographic platform stood in 60 feet of water housing complex recording instruments from 1959 until it was toppled by El Nino waves in 1988. It is now a popular sport diver destination. Perhaps Gene LaFond's greatest contribution is being the undisputed father of India's oceanographic program. His legacy stems from his work during three extended visits to India under a U.S. Fulbright Grant during 1952-53, and again in 1955-56, by express Indian invitation. His wife Katherine recalls they were also invited to New Zealand, but they choose

India because "they didn't know much about their culture." As a visiting professor at Andhra University he lectured on modern concepts and equipment to students and faculty, gave public lectures, assembled and improvised sampling gear, and made short research and teaching cruises in the Bay of Bengal (19 trips in 1952-53, 10 in 1955-56). In 1963 Gene and Katherine joined biological-oceanographic teams on the NSF sponsored International Indian Ocean Expedition's R/V *Anton Bruun* (ex-US presidential yacht *Williamsburg*) for research in the Bay of Bengal, the Andaman Sea, and off western India. Friend and fellow Scripps scientist Bob Fisher recalls, "In Time BG (Before Gene) India had essentially no tradition, outlook, or history of marine exploration; AG (After Gene) its program is varied and scientifically sound." India established an internationally recognized medal of ocean science bearing his name, and an endowed academic chair commemorating LaFond's contributions. Scripps professor Joris Gieskes adds concisely, "He was truly a great man." In honor of Eugene LaFond, the flag at Scripps Institution of Oceanography was flown at half-staff the week following his death. A memorial service for Eugene's many friends and colleagues will be held at Scripps Institution of Oceanography's Martin Johnson House (T-29), on Saturday, January 11, 2003, 4-8 p.m. Cards and good wishes may be mailed to Katherine LaFond, 4505 Santa Cruz Ave., San Diego, CA 92107. (Kevin Hardy, Bob Fisher, Deborah Day). *The Scripps Log December 6 - December 13, 2002 vol. 39 no. 47*

LaFond, Katherine W. Gehring (Kitty) (1910-2005)

LAFOND - Katherine Gehring LaFond passed away in the pre-dawn hours of Saturday, October 29, at age 94. In 1932, Katherine was hired as a lab chemist by T. Wayland Vaughan, Scripps's second director, making her the oldest living employee of the institution until her passing. She went to sea on the early sailing vessels of Scripps through 1936, before moving with her husband, Eugene, to UC Berkeley. While at Scripps, they lived in one of the small white cottages on campus. The Explorer's Club honored the LaFonds in January 2000 for their work in India, and Gene's submarine research in the Arctic and deep-sea exploration in the bathyscaphe *Trieste I*. Scripps Professor Walter Munk wrote for the Explorers Club, "We at Scripps appreciate what Gene has done for oceanography, from the days when he helped Harald Sverdrup with the book *The Oceans* to his pioneering contribution to Indian Ocean oceanography." Eugene passed away in December 2002. During the Scripps 100th year celebrations, Katherine signed copies of *The Oceans* on behalf of Eugene, which were given to the centennial class of Scripps graduates. Katherine and Ellen Revelle rode as the guests-of-honor on the Scripps floats entered in the 2002 and 2003 La Jolla Christmas Parades. She is survived by her two sons, William and Robert, along with their families. Services are Friday, November 4, 2005, 5-7 p.m., Merkeley-Mitchell Mortuary, 3655 5th Ave, San Diego 92103. Cards may be sent to the family c/o William LaFond, 4505 Santa Cruz Ave., San Diego, CA, 92107. (Kevin Hardy, khardy@ucsd.edu). *The Scripps Log November 4 - 11, 2005 vol. 41 no. 44*

Lal, Devendra (1929-2012)

DEVENDRA LAL, FRS - The Scripps Institution of Oceanography, UC San Diego, community is mourning the loss of longtime teacher, friend, and colleague Devendra Lal, FRS, who died on December 1 at his San Diego home. He was 83. Throughout his long career, Professor Lal was known for the diversity and creativity of his research interests. His early work on the composition and energy spectrum of primary cosmic radiation and in elementary particle physics became the basis for his research on the mechanisms and rates of natural physical and chemical processes on Earth and in the solar system using radionuclides. He published extensively on cosmic ray produced radioisotopes in terrestrial environments, in the atmosphere, in polar ice, in the oceans and oceanic sediments, and in lakes. And he worked on nuclear tracks and radioactivity in lunar samples and meteorites. This work brought him numerous international honors, among them as a Fellow of the Royal Society, Foreign Associate of the U.S. National Academy of Sciences, Fellow of the Indian Academy of Sciences, and recipient of the V. M. Goldschmidt Medal of the Geochemical Society. To his many friends and colleagues at Scripps and around the world Professor Lal was best known for his insatiable curiosity, his good humor, and as a caring and demanding teacher. He was fond of asking: "What new idea did you have today?" No idea was too big or too outlandish to be considered. He loved to experiment, and if something didn't work he would try it another way. Some of his experiments were gigantic, such as dating ocean waters by submerging meter-sized frames packed with iron-impregnated sponges or fibers into the deep sea for many hours to extract minute quantities of the natural radioisotope silicon-32. He often frustrated his colleagues and students with his all-consuming pursuit of science. He was both uncompromising and patient with students, often lamenting their poor preparation, especially in mathematics, but also spending hours with them until they understood the material. Devendra Lal was born February 14, 1929, to a large family of modest means in Varanasi, India, where he completed his bachelor's and master's education at Banaras Hindu University. His pioneering Ph.D. thesis research on cosmic ray physics at the Tata Institute of Fundamental Research in Bombay (Mumbai) and Bombay University, completed in 1960, had its roots in the origins of modern physics in Germany and the United States through his thesis advisor Professor Bernard Peters, who was a refugee from both Nazism in Germany and McCarthyism in the U.S. He first came to Scripps as a visiting researcher in 1957, and 10 years later as a professor of nuclear geophysics. Over his long career Professor Lal divided his time between Scripps and appointments in India, first as a professor at the Tata Institute and then as professor and director of the Physical Research Laboratory in Ahmedabad, before making Scripps his full-time academic home in 1989. Professor Lal and his late wife Aruna have been generous supporters of Scripps, notably through their endowment of the Devendra and Aruna Lal Fellowship in support of creative and exceptional Scripps graduate students. His wisdom and his good humor will be sorely missed, but his academic legacy and personal impact will remain with us for many years to come. Plans to remember and celebrate Professor Lal at Scripps are pending. Details will be posted on the Scripps website (www.sio.ucsd.edu). (Ray Weiss, rweiss@ucsd.edu, x42598). *The Scripps Log* December 14-21, 2012 vol. 48 no. 50

Lancaster, Judy (-2012)

JUDY LANCASTER - Judy Lancaster passed away on 31 January 2012 after an eight month battle with cancer. She began her career at SIO in September, 1982, working with John Orcutt and continued in that capacity until her retirement in June 1999. Initially Judy worked with the

Ocean Bottom Seismograph (OBS) group in Ritter Hall with the Geological Research Division and moved with the group to IGPP in 1984 when John Orcutt became the Director of IGPP. She helped enormously in advancing the number of seafloor instruments and their technologies during this period and went to sea at least once to learn how her work ashore was used. She greatly enjoyed a good IGPP party and was always ready to help her colleagues in making these great successes! An OBS was christened in her honor (large, black letters on the orange capsule) and worked through many deployments at sea. She will be remembered fondly by all who had the opportunity to work with her for her professionalism and cheerful disposition. She is survived by her husband Ken Klinko in San Diego and her daughter Mona in the San Francisco Bay area. (John Orcutt, jorcutt@ucsd.edu, x26378). *The Scripps Log* March 2-March 9, 2012 vol. 48 no. 9

Langille, Madeleine Sophie Binet (1926-2001)

Madeleine Sophie Binet Langille died at San Diego Hospice on November 15, 2001. Madeleine was the wife of the late Rear Admiral Justin Edward Langille, III, USN, former commandant of the 11th Naval District (San Diego). Upon retiring from the Navy, "Jack" became the Deputy Director of SIO from 1982-1987. Madeleine was born in Seattle on July 10, 1926. She was an alumna of the Convent of the Sacred Heart, Seattle University, and the School of Nursing at Stanford University. She was a gifted artist and musician, excelling in oil painting, watercolor, sculpting and Ikebana, as well as piano and violin. She will be remembered by all who knew her for her wonderful charm and wit, and her for ever-gracious heart. She lived well, laughed often, and loved much. In lieu of flowers, Madeleine's family suggests donations to St. Madeleine Sophie's Center serving the developmentally disabled (619/442-5129). *The Scripps Log* November 30, 2001- December 7, 2001 vol. 38 no. 48

Larson, Roger Lee (1943-2006)

Ph.D. 1970, Oceanography, Scripps Institution of Oceanography (UC San Diego)

Roger Larson, distinguished SIO graduate, died May 4. Roger's 1970 thesis work included the first near-bottom survey of a mid-ocean ridge crest (EPR 21 N). During a subsequent decade at Lamont and as a URI professor from 1980 onward, he focused on the Mesozoic history of the World Ocean. He was foremost in mapping and dating the marine magnetic anomalies formed from about 180 to 125 million years ago yielding the detailed plate tectonic history of that era. Beyond many ship-based magnetic mapping expeditions, Roger pushed persistently and successfully for drilling to support paleontologic and radiometric dating of the anomalies, documenting the early stages of the Pacific plate and the Atlantic and Indian Oceans. His research contributions were recognized by Fellow designations in both GSA and AGU. We remember with pleasure his boisterous laugh, infectious grin (see <http://espo.gso.uri.edu/rlar/>) and up-beat approach to life. A more extensive obituary is posted at <http://www.legacy.com/providence/Obituaries.asp?Page=LifeStory&PersonID=17648709> (Fred Spiess, Jerry Winterer). *The Scripps Log* May 19 - 26, 2006 volume 42 number 20

Ledden, Patrick J. (1936-2003)

Patrick J. Ledden, provost of UCSD's John Muir College and former associate chancellor, and a mathematician with a penchant for public art and the literature of James Joyce, died Oct. 28 at Thornton Hospital, La Jolla, after a long battle with stomach cancer. He was 67. Both educator and administrator Ledden assumed duties in 1987 as the second provost of Muir College, one of six colleges at UCSD. While serving as UCSD's associate chancellor under Richard Atkinson through 1987, Ledden was closely involved with the development of the Stuart Collection of outdoor site-specific sculpture which now includes 15 works scattered about the UCSD campus; it has received national attention as being innovative, qualitative, and challenging. Ledden is survived by his wife, Sally, of La Jolla, and a son, Patrick Ledden, Jr. of Boston. The family requested that, in lieu of flowers, donations be sent to the Patrick Ledden UCSD Undergraduate Scholarship Fund or the Patrick Ledden Preuss School Scholarship Fund through the UC San Diego Foundation, 9500 Gilman Dr., La Jolla 92093. Private funeral services are planned. A memorial service will be held at UCSD in January. *The Scripps Log* October 31 - November 7, 2003 no. 40 vol. 42

Leipper, Dale Frederick (1914-2004)

Ph.D. 1950, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

Dale F. Leipper passed away peacefully on February 29 with his wife and family by his side. Dale was a physical oceanographer and educator. Born in 1914 in Salem, Ohio, he married Virginia Harrison in May 1942. Dale was an Army Air Force weather officer and attended one of the first courses in wave forecasting taught by Sverdrup and Munk at Scripps beginning in May 1943. Following the war, he became a member of the first graduate class entering Scripps in the fall of 1946. He was always easy to identify in group gatherings and photographs as he was the tallest. As one of the first products of the Sverdrup curriculum of interdisciplinary oceanography, Dale went on to found the oceanography department at Texas A&M University in 1949 and establish another at Naval Postgraduate School in Monterey in 1969. Dale also initiated a unique interchange of letters among the then small community of oceanographers. "Letters from Oceanographers" includes intermittent submissions from 1948-1991. The complete series is in the SIO Archives. Dale is author of some 90 publications and reports on oceanography and marine meteorology, including currents in the Gulf of Mexico, hurricane-ocean interaction, ocean temperature variations, and forecasting of west coast fog and stratus. Dale has received numerous awards, recognitions, and commendations during his life. The latest in 2002 was from the U.S. Naval Meteorology and Oceanography Command for outstanding achievements and lifetime contributions. Dale is survived by his wife of 62 years, Virginia Leipper; son Bryan of Reno; 3 daughters, Diane of Reno, Anita of Eureka, CA, and Janet of Eugene, OR; and three grandchildren. In lieu of flowers, the family would appreciate donations in Dale's memory to support student fellowships at Scripps Institution of Oceanography. Address donations attention Edwina Riblet, Scripps Institution of Oceanography, UCSD, 9500 Gilman Dr. 0210 La Jolla, CA 92093-0210. (Doug Inman). *The Scripps Log* March 12 - March 19, 2004 vol. 41 no. 10

Lewin, Ralph Arnold (1921-2008)

RALPH LEWIN - Ralph Arnold Lewin, a highly distinguished scientist, author and professor emeritus who spent nearly 48 years at Scripps, died peacefully in his sleep on Nov. 30 in La

Jolla, after battling esophageal cancer for a year. He was 87. Lewin was a leading authority in multiple areas of marine biology. "Dr. Lewin had a remarkable wit and enjoyed instructing us all on the peculiarities of English. He was also original as an observer of natural phenomena such as oil droplets in algal cells. He was one of the most well-traveled, scholarly people I have known," said Scripps Marine Biology Professor Victor D. Vacquier, a longtime colleague of Lewin's. Lewin and his wife, Scripps biologist Lanna Cheng, were familiar fixtures around the Scripps campus and La Jolla community for decades. Born in London, England, on April 30, 1921, Lewin was educated at Cambridge University, receiving a B.A. degree in botany in 1942 and M.A. in botany in 1946. He came to the United States to continue graduate studies at Yale University and was awarded a Ph.D., also in botany, in 1950. He also was awarded a doctor of science degree from Cambridge University in 1972. Lewin joined Scripps as associate professor of marine biology in 1960 and retired from that position as full professor in 1991. Although retired, he remained extremely active in laboratory and field research and lectured nationally and internationally. His early research concerned the genetics of single-cell green algae, specifically their mechanism of sexual reproduction. His research included the development of methods for working with mutant cells in algae, opening the door to genetic studies and giving him the title of "the father of green algae genetics." In the 1980s he was the first person to understand and publicize the evolutionary significance of a primitive group of marine algae known as the prochlorophytes, or more simply, Prochloron, a likely ancestor of green plant chloroplasts. Lewin was considered to be the world expert on these unique marine organisms. Lewin published more than 250 scientific papers and edited and wrote many books and poems. In 1967 Lewin was awarded the Darbaker Prize by the Botanical Society of America. In 1970 he was president of the Phycological Society of America (PSA). In 1982 he was National Lecturer of the PSA. Per Lewin's wishes, a memorial service will not be held. In lieu of flowers, gifts in his honor will be directed to support Scripps graduate student fellowships. For information contact Edwina Riblet, Scripps Development, at 858-534-7793 or eriblet@ucsd.edu. See the full news release obituary at: <http://scrippsnews.ucsd.edu/Releases/?releaseID=943> (Scripps Communications, scrippsnews@ucsd.edu, x43624). *The Scripps Log* December 5 - December 12, 2008 vol. 44 no. 49

Liebhardt, Frederick C. (1924-1999)

LIEBHARDT - The distinguished architect, Fred Liebhardt, recently passed away. He was an early associate of Lloyd Ruocco, who designed the original IGPP building. Besides designing many residences, Fred designed the Scripps Library, the Sea Lodge Hotel, and many of the structures at the San Diego Zoo and the Wild Animal Park. When it came to the new addition to IGPP, a design was needed that was harmonious with the old laboratory and yet would not ape it. Fred Liebhardt succeeded in doing so with great sensitivity and in an exemplary manner. He enjoyed his association with the Scripps laboratories and would often bring his friends by. Judith and I greatly enjoyed his company and will miss him. (Walter Munk). *The Scripps Log* September 17-24, 1999 vol. 36 no. 37

Maggini, Marianne (- 2011)

MARIANNE MAGGINI – It's with deep sadness that we report the unexpected passing of Marianne Maggini. As many of you know, Marianne was the editor of *Explorations* print magazine from 2000 until 2006. She left Scripps to relocate to Santa Barbara and had worked as a senior editor at the UC Center for Environmental Implications of Nanotechnology at UC Santa Barbara. As *Explorations* editor, Marianne was the ultimate professional, dedicated to producing a quality magazine worthy of Scripps' highest standards. Through her position, she became well acquainted with many Scripps scientists, students, and staff and she was highly regarded by everyone. Marianne was a bright star in the Scripps community and her contagious smile and everlasting sweetness will be greatly missed by all of her Scripps friends and colleagues. In lieu of flowers, friends are asked to make a donation to a favorite charity that supports animals. Cards can be sent to: Maggini Family, c/o Carter Ohlmann, PO Box 5332, Santa Barbara, CA 93150. A memorial service in San Diego may be planned in the coming weeks and will be posted in the *Scripps Log*. (Cindy Clark and Rob Monroe, Scripps Communications, scrippsnews@ucsd.edu, x43624). *The Scripps Log* March 11-March 18, 2011 vol. 47 no. 10

Mahnken, Madeleine A. (1923-2004)

Madeleine Mahnken, a long-time staff member, died May 14, 2004, at age 81. Her affiliation with Scripps goes back to 1944 when she joined the fun-living group of UCDWR artists and illustrators who worked at Point Loma. In 1947, she transferred to the campus Machine Shop, where she drew technical illustrations and blueprints of a wide range of marine instruments. She designed the trident now displayed on Scripps ship originally created for a rubber stamp at the request of James Snodgrass. She later worked at the Radiation Lab and the Deep Sea Drilling Project. Somewhat dramatic and flamboyant, Madeleine wrote the words and music for the whimsical musical reviews Flip I, II, and III which raised money for scholarships in the 1960s. Madeleine will be cremated and buried at her hometown, Andover, Massachusetts. She is survived by her son, Thomas G. Mahnken, a Navy officer at the Naval War College in Newport, Rhode Island, daughter-in-law, Deborah, and grandson, Thomas. Of her death she once said, "I expect those at Scripps to have a giant luau and celebrate....No sad songs for me." A memorial service will be held for Madeleine on Saturday, June 19 at 11:00 a.m. at St. Peter's Episcopal Church on 15th Street across from the Plaza in Del Mar. *The Scripps Log* June 18 - June 25, 2004 vol. 21 no. 24

Mahoney, John Joseph (1952-2012)

Ph.D. 1984 Earth Sciences, Scripps Institution of Oceanography (UC San Diego)

JOHN J. MAHONEY - John had earned a B.A. in biology from the University of Colorado in 1975. He then went back to his native Montana where he worked for a while as a carpenter. During that time John had an 'encounter' with Al Engel working on Al's house. You didn't just meet Al, you definitely had an encounter. Somehow Al had learned about John's interest in deep-sea sediments and encouraged him to apply to Scripps Institution of Oceanography for graduate work. John thought he was interested in sedimentology but once he got to Scripps in 1978 other encounters changed his mind. For his thesis he used high precision isotope data coupled with careful major and trace element analyses to probe the origins of one of the world's major flood basalt provinces, the so-called Deccan Traps of India, as well as a similar but much smaller

(although also important) lava outpouring, the Rajmahal Traps (also in India). John earned his Ph.D. in 1984, spent a year at Univ. Minnesota as a postdoc, and shortly thereafter (1985) he moved to the University of Hawaii. John established a radiogenic isotope laboratory at UH and used it to pursue a wide array of research topics, including the causes and consequences of flood basalt volcanism, the formation of oceanic plateaus, linear chain volcanism in the Pacific, and magma formation at mid-ocean-ridges and Hawaiian volcanoes. He pursued related research into topics such as the dynamics of mantle melting and the use of geoneutrinos to understand Earth's internal radioactivity. He was awarded a research excellence medal by UH in 1995, and with Mike Coffin (now at Univ. Tasmania), established the Large Igneous Provinces commission of IAVCEI in 1993, stayed at its helm until 1998. He edited an influential AGU monograph on flood basalt volcanism in the 1990s and was an editor of JGR Solid Earth during the 2000s. John was a dedicated educator and mentor to graduate students and postdocs. He was also an outdoorsman and concerned about the environment. During the 2000 presidential race, he was contacted by Al Gore's team about a possible science advisory position if Gore won the election. John Joseph Mahoney died on Friday 23 November in Honolulu after a brief illness. John was a professor emeritus and research scientist in the department of Geology & Geophysics, and a lover of the natural world. He is survived by his wife Nancy; his siblings Donna Mahoney, Marla Mahoney, and Tom Mahoney, and their families; and by his three WWII jeeps. His wife, Nancy, was with him when he died. As a student and colleague John was thoughtful and polite. One never saw him get really angry - frustrated, maybe (especially with the red tape in India) but not angry. He will certainly be missed. (Doug Macdougall, Jim Hawkins, Guenter Lugmair, Ken Rubin). *The Scripps Log* December 7-14, 2012 vol. 48 no. 49

Mason, Ronald George (1916-2009)

RON MASON - Ronald George Mason, emeritus professor of geophysics at Imperial College, London, passed away in a hospital there. Ron was, first and last, of England. But several times since 1952 he was based in La Jolla and worked with Scripps geoscientists, notably directing a two-year program at Fanning Island to observe geomagnetic phenomena believed associated with the magnetic equator. In 1952, Roger Revelle invited Ron to join *Spencer F. Baird* on the Capricorn Expedition to explore the geological-geophysical characteristics of 22,000 nautical miles of the fabled Southwest Pacific's deep seafloor. In those four months Ron obtained magnetic anomaly profiles for 4,000 miles of track, including the first such surveys in Tonga Trench. In the mid-1950s, Ron and engineer Arthur Raff, then both of MPL, initiated extensive close-spaced, well-navigated magnetic profiling of tracts of the seafloor employing the U.S.C. and G.S. vessel *Pioneer*—for several hundred kilometers off California and the Pacific Northwest. Those 1950s contoured observations revealed and established the trends and offsets of the so-called “magnetic stripes” pattern of the igneous seafloor, now recognized and confirmed worldwide in the oceanic basins. Mason-Raff's early work and extensive surveys and very clever and elegant theoretical interpretations by others in the early 1960s—most notably Cambridge's Vine, Matthews—and incisive rigorous contemporaries soon led to the notion of “seafloor spreading” that provided clues to a world-known “revolution” in earth sciences, today's plate tectonics. *Pioneer* indeed, Ron Mason was there at the inception; his modesty was becoming and instinctive. Ron soon moved away from Scripps; his legacy remains. (Bob Fisher, rlfisher@ucsd.edu, x43597). *The Scripps Log* August 7 - August 14, 2009 vol. 45 no. 31

McHugh, John Laurence (Laurie) (1911-1999)

Ph.D. 1950, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

John Laurence McHugh, a former professor of marine resources at the State University of New York at Stony Brook (SUNY), died August 20. He was 87. He received his bachelor's and master's degrees from the University of British Columbia and doctorate from Scripps. From 1970-1984 he was a professor at the marine sciences center at SUNY. From 1959 - 1970 he was chief of biological research at the Federal Bureau of Commercial Fisheries, and then director of the Virginia Fisheries Lab. He is survived by his son, two daughters, and two step sons. (*The New York Times*). *The Scripps Log* September 24 - October 1, 1999 vol. 36 no. 38

McLellan, Sally A. (1932-2001)

The UCSD community recently lost one of its dear friends and long time, talented staff members with the passing of Sally McLellan. Sally, who was the business officer of Academic Computing Services, died after a brief illness on December 22, 2001. She had been with the university almost since its beginning, starting in 1963 at SIO with the original Computer Center ORU. She was known and loved by the UCSD community for her kindness, talents, intelligence, and ready wit. The UCSD community is invited to come and share their memories of Sally at a campus celebration of her life. The event will be held in the Price Center Ballroom A from 3:00 - 4:30 p.m. on Friday, January 18. Light refreshments will be served. Please join us in commemorating this very special member of UCSD's family. Cards may be sent to the family at her address, 2025 Country Haven Court, Encinitas, CA 92024. Donations in Sally's memory may be directed towards the two charities designated by the family, Canine Companions for Independence (<http://www.caninecompanions.org/>) and Make A Wish Foundation (<http://www.wish.org/>). *The Scripps Log* January 18 - January 25, 2002 vol. 39 no. 2

Menard, Gifford Merrill (1917-2004)

GIFFORD MENARD - Gifford Merrill Menard, widow of H. William Menard (1920-1986), died January 28, 2004, following a stroke. Born in Brooklyn in 1917 and raised on Long Island, New York, she attended business school and worked on the east coast until seven rainy weekends in a row convinced her to move to Pasadena. She became secretary to Clark Millikan at Caltech and there met Bill Menard, a graduate student in geology. They married in 1946. After World War II, Giff accompanied Bill to Harvard, where he earned his Ph.D., then to San Diego, first at the Navy Electronics Laboratory and in 1955 at Scripps Institution of Oceanography. Gifford earned a B.A. at San Diego State. Later commitments took the family to England twice, to Washington, D.C. where Bill was a technical adviser in the Office of Science and Technology, and again to the capital when Bill served as Director of the U.S. Geological Survey (1978-1981). The Menards returned to La Jolla in June 1981. Giff was active in Oceanids and in local classical music groups. She enjoyed traveling and was always interested in distinctive cultural recipes. She was a true lady. A memorial service will be held at St. James Episcopal Church on Prospect Street, La Jolla, on February 14 at 2 p.m. The family suggests donations to San Diego Opera. The three Menard children are Andrew, Elizabeth, and D. Merrill. (Betty Shor). *The Scripps Log* February 6 - February 13, 2004 vol. 42 no. 5

Miles, John W. (1920-2008)

JOHN W. MILES - John W. Miles, renowned scientist and research professor emeritus of applied mechanics and geophysics at Scripps Institution of Oceanography, died Oct. 20, 2008, in Santa Barbara, Calif., following a stroke. He was 87 years old. Miles had been at Scripps since 1964 as a researcher and professor in the Cecil H. and Ida M. Green Institute of Geophysics and Planetary Physics (IGPP) and also served as vice chancellor for academic affairs at UC San Diego from 1980 to 1983. Miles was well regarded for his pioneering work in theoretical fluid mechanics and in 1957 proposed a wind-wave growth model, a theory he continued to refine until late in his career. His theoretical model is considered one of the cornerstones for the current generation of numerical wave prediction models, and a major contribution to the field of ocean weather forecasting and wave dynamics." John was a very generous colleague with a great love for research and an immense appetite for work", said Rick Salmon, Scripps professor of oceanography and colleague of Miles. "John was known for his generous support of young people who worked with him, a number of whom have gone on to very successful careers in academia and research," said Ken Melville, professor of oceanography at Scripps and former postdoctoral researcher with Miles. "The example John set would influence you for the rest of your career." At Miles' request there will be no memorial services. His ashes will be scattered at sea. *The Scripps Log* October 24 - October 31, 2008 vol. 44 no. 43

Montciel, Wendelin Ann (1950-2013)

WENDELIN MONTCIEL - It is with great sadness that I report the passing of dear friend and former Birch Aquarium at Scripps colleague Wendelin Montciel on Jan. 1, 2013. She contended with cancer for more than four years. Those long associated with Scripps may remember Wendelin as an instrumental member of the team that created the original exhibits for the museum wing of Birch Aquarium when it opened on its present site in September 1992. In addition to her work as the Aquarium's Director of Exhibits, she was also a long-time member of the Faculty Club board of directors at UC San Diego. In 1999, Wendelin moved to northern California to design exhibits for the prestigious Academy Studios, then fulfilled a lifelong dream to live in Paris from 2002-2004 while earning an International M.S. in Education. She finished her career as Exhibits Curator at the Seymour Marine Discovery Center, UC Santa Cruz. I feel so fortunate that my career at Birch Aquarium overlapped with Wendelin's. It was a joy to work with her on exhibit projects due to her wit (she never missed an opportunity for a pun), wisdom, passion, and creativity. She took the time to understand and digest the science, then masterfully employed all the tools at a designer's disposal to create engaging exhibits that communicated complex concepts in artfully visual and meaningful ways for public audiences. Wendelin was the rare person who sought to make the world a better place, through her work as well as her everyday actions. I know I speak for many when I say that her impact lives on. She is mightily missed, both personally and professionally. (Debbie Zmarzly, dzmarzly@ucsd.edu, x44087). *The Scripps Log* March 1-8, 2013 vol. 49 no. 9

Moore, Robert D. (1931-1999)

Robert D. Moore died on January 1, of pneumonia, following a bout with cancer. He and his wife, Lorraine (roesling@gatewest.net), lived in Winnipeg. Bob was a pioneer in the development of seismic instruments at UCSD. He worked in the physics department and IGPP,

where he was an assistant professor for a time, and GRD at Scripps. The innovative quartz-fiber accelerometer that bears his name was the forerunner of seismometers in use today that make use of feedback to extend the bandwidth and dynamic range. Bob's efforts guided the development of several generations of ocean bottom seismometers. He approached engineering problems with the fundamental point of view of the physicist. His co-workers will remember the energy he brought to his work and his acute sense of humor which he shared with all of us. (LeRoy Dorman and John Orcutt). *The Scripps Log January 15 - 22, 1999 vol. 35 no. 2*

Mullin, Michael Mahlon (1937-2000)

It is with great sadness that we announce that Michael Mahlon Mullin, Professor of Oceanography in the Marine Life Research Group at Scripps Institution of Oceanography, died suddenly on December 19, 2000, of complications following surgery. He was 63 years old. Mullin was active in both scholarship and administration, and his research featured studies of the dynamics of phytoplankton, zooplankton, and larval fish in the marine food web. In addition to his teaching and research, Mullin served in a number of administrative positions at Scripps: chairman of the Graduate Department, Associate Director, Director of the Marine Life Research Group, and Associate Dean for Academic Affairs. Mullin is survived by his wife of 36 years, the former Constance Hammond, whom he met while she was an undergraduate at Radcliffe College. He leaves three children, Stephen Joseph Mullin of Charleston, Illinois; and Keith Alan Mullin and Laura Mullin Thompson, both of La Jolla, and a grandchild, Alexandra Christine Mullin. He is also survived by his mother, Alma Hill Mullin of El Paso, Texas, and a brother, Mark Hill Mullin of Oklahoma City, Oklahoma. A memorial service will be held at Scripps Institution of Oceanography on Saturday, January 6, 2001, at 2 p.m., adjacent to the Scripps Pier. In lieu of flowers, the family requests that donations be made in his memory to the Nature Conservancy. *The Scripps Log December 22, 2000 - January 5, 2001 vol. 37 no. 51*

Munk, Judith Kendall Horton (1925-2006)

Judith K. Munk, an artist, sculptress, architect and close friend of Scripps and UCSD died on May 19 at Scripps Memorial Hospital from pneumonia. She was 81. She and her husband, renowned Scripps oceanographer Walter Munk, were a month away from celebrating their 53rd anniversary. Their years together were rich with research, travel, community affairs and spending time with family, friends and colleagues. Judith was born in San Gabriel, Calif., on April 10, 1925. She was raised in Los Angeles before attending Bennington College in Vermont, where she received a degree in arts and architecture. Judith, who began sculpting at age 7, became a student of sculptor Donal Hord, whom she had known as a child. In 1951 she was hired by Sam Hinton as an illustrator/materials assistant at Scripps Aquarium and shortly thereafter met Walter. Judith made numerous contributions to architecture, campus planning and the renovation and reuse of historical buildings across the Scripps and UCSD campuses. "Judith Munk's clarity of thought, artistic good sense and sheer drive were behind several elegant buildings built on the Scripps campus," said Charlie Kennel. "An evening in her living room was renowned as the quintessential Scripps experience for students, scientists and legions of friends from around the world. Judith Munk enlivened all she touched. She made all lives better." A celebration of Judith's life will be held outdoors at IGPP's Munk Laboratory on Sunday, June 25 at 3 p.m. Details to come. To read the complete Scripps news release, visit: http://scrippsnews.ucsd.edu/article_detail.cfm?article_num=732 . (Scripps Communications, x43624). *The Scripps Log May 26 - June 2, 2006 volume 42 number 21*

Murphy, Garth Ivor (1922-2001)

Ph.D. 1965, Oceanography, Scripps Institution of Oceanography (UC San Diego)

The *San Diego Union Tribune* noted last month that Garth I. Murphy died on May 5, at age 79. A Ph.D. alumnus of SIO in 1965, Murphy was the first to be appointed CalCOFI Coordinator, from 1959 to 1965 (CalCOFI began in 1948). He helped to establish fisheries restrictions on the then-declining sardines. After completing his Ph.D., Murphy was a professor of oceanography at the University of Hawaii, was a consultant to the U.N. Food and Agriculture Organization, and in 1974 became a research scientist in fisheries in Australia with CSIRO. He retired in the early 1990s and was in a nursing home in Woodland, California, (near Davis) when he died. (Betty Shor). *The Scripps Log June 8 - June 15, 2001 vol. 38 no. 23*

Murray, Earl A. (1928-2009)

EARL MURRAY - Earl A. Murray died 20 October 2009 in Scottsdale, Arizona, at the age of 81. Earl was well known at Scripps Institution of Oceanography and elsewhere for his deep dive accomplishments, underwater photography, and sketches of submarine features that he made during his career ca. 1952-1977 as a staff research associate working with my Shore Processes group. An important aspect of the Experimental Mohole Drilling in the San Diego Trough in 1960 was the testing of the method of keeping the drilling platform stationary. By continuously "pinging" on four stationary taut-wire deep sea buoys placed about 200 ft under the surface, the platform was stabilized by four large propellers. I assigned the placement and maintenance of the buoys to Earl and his diving partner, "Big George" Hohnhaus. By repeated dives to 200 ft depth, they did a magnificent job of keeping the buoys in place, even replacing one that was cut by another ship's cable during the operations. The system, envisioned by Willard "Wild Bill" Bascom, worked perfectly and was repeated in later Mohole Drillings. In September 1965, Earl was a U.S. Aquanaut living in the SeaLab II habitat with Astronaut Scott Carpenter and others at a depth of 200 feet off Scripps where he installed and operated the Scripps "Underwater Weather Station" on the canyon rim. Earl dubbed the SeaLab II habitat the "Tilting Hilton" because it was not properly leveled on the sloping sea floor. He was a participant in the dives of Jacques Cousteau's diving saucer, *Soucoupe*, in the submarine canyons off California and Baja California, Mexico. Earl also was a Life Magazine diver-photographer on the *Andrea Doria* shipwreck off Nantucket, Massachusetts. Earl contributed his own brand of courage and expertise to the success of our scientific endeavors at Scripps. (Doug Inman, dinman@ucsd.edu, x44334). *The Scripps Log October 30 - November 6, 2009 vol. 45 no. 43*

Namias, Edith Paipert (1909-2003)

Edith Namias passed away on February 10, 2003. Mrs. Namias was married to Jerome Namias, a central figure in meteorology and climatology, who worked at SIO from 1972 to 1997. He predicted the season's aggregated weather over the country. These experimental forecasts were vital in building an active U.S. extended-range prediction program. Edith died on the exact same date that Jerome passed away six years ago. Mrs. Namias was an accomplished artist. She studied at American University where she was honored with one-woman show. During her years in Washington, D.C., she taught art and maintained an art studio. When the Namiases moved to La Jolla, she exhibited in many galleries. Edith travelled extensively with her husband, and is survived by her daughter and two granddaughters. She will be buried in Sharon, Mass., next to her beloved husband, Jerome. *The Scripps Log February 21 - February 28, 2003 vol. 40 no. 7*

Needler, George T. (1935-2002)

The staff at the Bedford Institute of Oceanography (BIO) in Dartmouth, Canada were shocked and saddened to hear of the sudden and unexpected passing of Dr. George T. Needler. George passed away in his sleep at his home in Dartmouth on June 7, 2002. George's career with BIO spanned 4 decades and virtually the entire life of the institute. He was initially appointed as a Research Scientist in 1962 leading a Theoretical Oceanography Group. He served as the Head of the Ocean Circulation Division during 1973-1978, and then as the Director, Atlantic Oceanographic Laboratory during 1978-85. In 1985, he became the first Director of the International Planning Office for the World Ocean Circulation Experiment (WOCE), leading the development of its science and implementation plans. George returned to BIO in 1992 as a Senior Research Scientist until formal retirement in 1995. Since 1995, he continued to be active scientifically as a Scientist Emeritus at BIO. George has truly been one of the leaders in the development of oceanographic and climate research programs at BIO, within Canada and internationally. Expressions of sympathy can be sent to George's wife Catherine Needler, Piaristengasse 18 - 8, A1080, Vienna, Austria, and to his children c/o Mary Kate Needler, 40 Park Ave., Dartmouth, N.S., Canada B2Y 1A4. *The Scripps Log June 21 - June 28, 2002 vol. 39 no. 24*

Netusil, Jan (1931-2005)

I am sorry to report that our wonderful former groundskeeper, Jan Netusil, has passed away at the age of 74. In the late 1980s, early 1990s many of us were welcomed each morning by his smile and many more often received cut flowers from the garden he tended. Jan was instrumental in decorating T-29 and turning it into the astonishing and breathtaking winter wonderland it became for our early-years holiday parties each December. There will be a service at 12 noon on Saturday at the St. John the Evangelist Catholic Church, 1001 Encinitas Blvd, Encinitas. (Jill Hammons, x43948). *The Scripps Log October 21 - 28, 2005 vol. 41 no. 42*

Nierenberg, William Aaron (1919-2000)

It is with a sad heart that we announce that Bill Nierenberg, director of Scripps Institution of Oceanography and vice chancellor of marine sciences from 1965-1986, passed away Sunday, September 11, 2000. His career has been characterized by his intense drive, from a childhood of poverty to widely acknowledged stature in science. Bill served SIO the longest of any of its nine directors and he had a profound impact. I find myself quite at a loss to give a full and broad review of his impact on science, national policy, and Scripps right now so I will just say I truly benefited from his friendship. We will ALL miss Bill. **A memorial service will be held at the Martin Johnson House, on Thursday, September 28, at 3 PM.** --- Charlie Kennel. *The Scripps Log September 15 - September 21, 2000 vol. 37 no. 37*

Nigrini, Catherine Clark (1939-2005)

Our dear friend and colleague Catherine Nigrini (nee Clark), born in Toronto, Ontario, died peacefully in her sleep due to complications from lung cancer on the morning of Thursday, January 13, 2005. She was predeceased by her husband, Andrew, and is survived by her daughter, Jennifer, and son, Peter. After completing her primary education at Branksome Hall, Cathy continued her education at Trinity College, University of Toronto, earning a BS in Geology in 1962. In the summer of 1962 she carried out initial investigations of Radiolaria in the experimental MOHOLE cores for William R. Riedel at Scripps Institution of Oceanography

(SIO). Four years later she received her Ph.D. in Micropaleontology from the University of Cambridge. She was closely associated with Riedel and many others at SIO during her productive paleontological career. Throughout her life, Cathy continued to pursue her scientific career, publishing numerous papers and participating in six oceanic research voyages. She was one of the first women to sail on the Glomar Challenger in 1968 from Hoboken, New Jersey, to Dakar, Senegal, a journey that produced important substantiating evidence for the existence of sea floor spreading at the mid-Atlantic Ridge and for the theory of plate tectonics. In later years, she also sailed on the *JOIDES Resolution*, and *Marion Dufresne*, in the Pacific and Indian Oceans. Cathy spent 28 years in the United States living in Lexington, Massachusetts, and La Habra, California. During this time she was active in the lives and education of her two children through parent-teacher organizations, volunteering in the schools, and working in the high school library system. Cathy developed numerous life-long friendships and discovered an avid interest in quilting. Five years ago Cathy and her husband Andy came home to Canada settling in Canmore, Alberta. She spent equal time pursuing her love for radiolarians, the database RadWorld, quilting, hiking in the Canadian Rockies, and traveling. She also dedicated a great deal of her time to the development of the Canmore Museum and Geoscience Centre. Her family has established a fund with the museum in her memory. Donations may be sent to: The Canmore Museum and Geoscience Centre, 902B 7th Ave., Canmore, Alberta, Canada, T1W 3K1. Throughout her life Cathy spread sunshine wherever she walked, she was a wonderful person and an equally wonderful scientist. She taught us many valuable lessons -- organizational skills, attention to detail and sense of perfection -- and made herself an ever-lasting place in our hearts. She will be sorely missed. (Annika Sanfilippo, annika@ucsd.edu). *The Scripps Log* January 21 - January 28, 2005 vol. 42 no. 3

Niiler, Pearn Peter (1937-2010)

PETER NIILER - Pearn Peter Niiler, Ph.D., distinguished emeritus professor of physical oceanography at Scripps, passed away on October 15, 2010, in San Diego, California, after a heart attack. Peter studied engineering and earned a bachelor's of science degree from Lehigh University in 1960, Pt. II Tripos, Honors Cambridge University, England, 1961, and a Ph.D. from Brown University in 1964. After completing a Fulbright fellowship at Cambridge University and postdoctoral fellowship at Harvard, Peter joined Nova University in 1966. He moved to Oregon State University in 1974 and then joined the faculty of Scripps Institution of Oceanography as a professor in 1982. Peter trained as a theoretician but, as he liked to narrate, he "first became an oceanographer" when Henry Stommel captured his interest by showing him the first direct measurements of the mass flux of the Florida Current. Since then, Peter's main scientific interest was to obtain direct measurements of the world's ocean circulation and understand its dynamics. I vividly remember, when I first arrived at Scripps, Peter told me: "Have a vision!" Well, he certainly had one, which became the Global Drifter Program as we know it. The combination of his theoretical and mathematical skills with the ability to understand and interpret observations and to conceive and design just the right instrument to study a physical process, have been the pillars and thrust of his brilliant scientific career. Peter has published over 200 scientific papers and research reports. Peter would communicate enthusiasm to the people around him. He was not afraid to speak his mind against the general consensus when he was seeing a better way of solving a scientific problem, though he was kind and respectful. His approach to science was at times unconventional and therefore very creative. Those who knew Peter certainly remember his love for life and the arts. He would seldom run

away from a party or a glass of good wine. He was just a nice person to be around. His departure leaves a great big empty space in his family. And it is a great loss for oceanography. Memorial Services for Peter will be held on Saturday, October 23 at 3 p.m. at St. James by-the-Sea Episcopal Church, 743 Prospect Street, La Jolla, Calif. Peter's family asks that in lieu of flowers, those wishing to honor him would please donate to the arts organization of their choice. (Luca Centurioni, lcenurioni@ucsd.edu, x46182). *The Scripps Log* October 22 - October 29, 2010 vol. 46 no. 42

Normark, William Raymond (1943-2008)

Ph.D. 1969, Oceanography, Scripps Institution of Oceanography (UC San Diego)

WILLIAM R. NORMARK - William R. Normark, Scripps Ph.D., '69, passed away on Jan. 12 at his home in Sunnyvale, Calif. Bill died of lung cancer brought on originally by kidney cancer. He fought the growth of the lesions for nearly eight years. He retired from the USGS in October 2007 and continued as an emeritus scientist. Bill's work at Scripps and his thesis was the study of submarine fans, some of the surveys using Deep Tow under Fred Spiess' guidance. I was privileged to be his doctoral co-chairman with Fred. While he was a graduate student he met his bride to be, Dorothy Jean, DJ, daughter of one of our secretaries, Dorothy Tuthill. Many of us remember Bill and other graduate students showing great interest in this very pretty young lady when she visited her mother in the office on her way to the beach. Bill won the prize, and Bill and DJ have been married ever since then. After receiving his Ph.D., Bill and DJ spent a couple of years at the University of Minnesota before moving on in 1974 to a distinguished career at the USGS in Menlo Park. Bill was best known for his work on the character and depositional patterns of turbidite fan deposits, including work on the Navy, Laurentian, Monterey, Hueneme, and Amazon fans. Notably, his long-continuing collaboration with David Piper of the Geological Survey of Canada (GSC) led to very significant papers about the architecture, sediment type, and growth patterns of fan deposits, ancient and modern. His other many projects with the Survey included Alvin studies of the East Pacific Rise; he led the early 1980s program on hydrothermal-mineral deposits on ocean spreading ridges; he led the Survey side-scan sonar mapping around the Hawaiian Islands; he worked with the USGS team study of high-resolution surveys in the Southern California Borderland basin for identification of gas hydrates and natural oil and gas seeps; and he helped to identify late Pleistocene flood deposits from the glacial Lake Missoula lying off the mouth of the Columbia River. Throughout his career, Bill was well known within the USGS for his wide-ranging contributions to the USGS and his collaborative efforts with scientists within and outside his areas of expertise. Between 1988 and 1995, Bill stepped back from research to serve the USGS as Associate Chief Scientist and as the first Regional Geologist (acting) to deal with facilities, program, and personnel issues for the Western Region. During this time, Bill continued his research activities. He also served on several Ocean Drilling Program (ODP) advisory panels, was the Joint Oceanographic Institutions/U.S. Science Advisory Committee's Distinguished Lecturer from 1995-1996, and participated in ODP Leg 155 (Amazon Fan). During much of Bill's career, he served on several editorial boards, including *Geology*, the *Journal of Sedimentary Petrology*, *Marine Geodesy*, and the *Giornale di Geologia*. Immediately following his management time, Bill spent six months observing the Geological Survey of Canada at the Chief Geologist's behest in order to learn how GSC's regional structure could be adapted to the USGS. In 1996 he returned to active research. Bill was the author of at least 90 first-author peer-reviewed papers amongst the more than 230 total papers (and some 150 presentations) that carry his name. He participated in more than 60 USGS

research cruises, about half as Chief (or co-Chief) Scientist. A recipient of the USGS Meritorious (1986) and Distinguished (2002) Awards, Bill also received the Michael J. Keen Medal (2003) from the Geological Survey of Canada for contributions to the field of Marine Geoscience, the Francis Shepard Medal (2005) from SEPM for Excellence in Marine Geology, and was elected a Fellow in the American Geophysical Union in 2006. Among his other interests, Bill had learned the fine points of wine making while in Menlo Park, and was considered one of the best of the Survey group of wine makers. I can attest to his skill because I have had the privilege of tasting some of his reds. Bill was a special person: a former student of whom I am very proud; a brilliant scientist whose papers I have referenced many times; and a valued friend whom I did not see frequently, but will miss. (Joseph Curray, jcurray@ucsd.edu, x43299). *The Scripps Log January 25 - February 1, 2008 vol. 44 no. 4*

Norris, Robert Matheson (1921-2012)

M.A. 1949, Geology, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1951, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

ROBERT NORRIS - Robert Matheson Norris, who received his SIO-UCLA doctorate in marine geology in 1952 with Francis Shepard, died at home in Hope Ranch near Santa Barbara on August 3. Bob's entire post-SIO career was in teaching at UC Santa Barbara (then early evolving from Santa Barbara State College), where he established and long taught the marine geology and geomorphism curricula and led field trips throughout the desert Southwest. He is survived by his wife Virginia and three children, in addition to nearby Dick Norris of our GRD faculty. In his SIO years Bob Norris sailed the *E.W. Scripps* yacht with fellow grad students to map the seafloor and collect geological samples from the San Nicolas Island offshore for his Ph.D. research. He helped organize (under PI Francis Shepard) and act as initial party chief in the serial-setting localities of the American Petroleum Institute's Project 51 field program, i.e. intensive sedimentological sampling onshore-offshore of the barrier island environment around Rockport, Texas, in 1951. Bob returned once more to SIO as he joined our IGY Downwind Expedition (1957-58) to the Southeast Pacific. One memorable day in innocence he swam ashore with me from a waiting skiff to collect the first rocks from the volcanic reef at Sala y Gomes, northeast of Eastern Island; only the messboy, with the lone faceplate, became aware of the abundance of large sharks accompanying us. (Bob Fisher, x43597). *The Scripps Log September 21-28, 2012 vol. 48 no. 38*

Northrop, John (1923-2009)

JOHN NORTHROP - John Northrop, retired geophysicist, died at home on March 28, 2009. He was born Feb. 1, 1923. John graduated from Princeton in 1947 with a degree in geology, after serving as a flight instructor in the Naval Air Force in World War II. He then received an M.S. at Columbia University in 1948 and a doctorate from the University of Hawaii in 1968, specializing in geophysics with a specialty in acoustics. He worked for Woods Hole Oceanographic Institution (1947-49); Lamont Geological Observatory (1948-52); Hudson Laboratories (1952-61); the Marine Physical Laboratory of Scripps Institution of Oceanography (1961-64); and Naval Ocean Systems (1967-86). He participated in research expeditions at WHOI and Scripps, especially on R/P *FLIP*. John's outside activities included sailing, tennis, crew, and hockey. In retirement, he especially enjoyed horseback riding in the canyons of San Diego and became very active in the movement to preserve open space and public trails in the Peñasquitos and Carmel Valley areas, including being instrumental in the formation of the Los Peñasquitos Canyon Preserve, which he continued to serve for some years. John's wife Barbara died in 2007. John is

survived by son John H. Northrop, son Geoffrey M. Northrop, daughter Helen H. Northrop, three granddaughters, and one great-granddaughter. A memorial will be scheduled soon. Donations for Scripps student fellowships in John's name can be sent to: Director's Office, Scripps Institution of Oceanography, UCSD, 9500 Gilman Drive, La Jolla, CA 92093-0210. Checks should be addressed to UC Regents and designated to John's name. (Betty Shor, betty.shor@gmail.com).
The Scripps Log April 3-April 10, 2009 vol. 45 no. 13

Osterday, Kathryn (1986-2012)

KATIE OSTERDAY - Katie Osterday, a doctoral candidate and researcher at UC San Diego, died in a car accident on Dec. 20. After completing her undergraduate studies in the UCSD physics department, she continued her education here, receiving her master's degree and becoming a doctoral candidate in aeronautical and mechanical engineering. As a doctoral student, she studied and conducted research in bioengineering and the microrheology of eukaryotic cytoplasm. She was a Jacobs Fellow, researching under advisor Juan Carlos del Alamo and mentor Juan C. Lasheras. Earlier this year, she won the prestigious National Science Foundation fellowship and won the "Mechanical and Aerospace Engineering Best Poster" at the 2012 Jacobs School of Engineering Research Expo. She was also a volunteer for the "Expanding Your Horizons" network, an annual conference aimed at motivating women in science and mathematics. She was a former undergraduate in the Scripps lab of Tony Haymet and coauthored a paper in the Journal of Biological Chemistry with Haymet, Peter Wilson, and Aaron Heneghan. She was coauthor with Haymet and Wilson on another scientific paper in CryoLetters. The "Celebration of Katie's Life," arranged by her family and close friends, will be held on Saturday, March 2, in UCSD's Structural and Materials Engineering Building, with a sunset ceremony at the Scripps Pier to follow. (UCSD Guardian and Scripps Communications, scrippsnews@ucsd.edu, x43624. *The Scripps Log February 8-15, 2013 vol. 49 no. 6*

Oversmith, Robert Harold (1925-2003)

Robert Oversmith passed away on July 22, 2003, at the age of 77. In the mid-60s, he left the Convair Division of General Dynamics in San Diego to start his own company, Ocean Dynamics. One of his inventions, a one-man submarine, received a patent. After several years, he sold Ocean Dynamics to the electric boat division of Convair. He then joined Scripps Institution of Oceanography and served as a consultant on a variety of sea-related engineering projects. While at Scripps, Oversmith devised a towing tank with a wave machine to test the seaworthiness of scale models of ships. Oversmith was an avid scuba diver and fisherman. Survivors include his two daughters, one son, and several grandchildren. Services were held at Fort Rosecrans National Cemetery on August 8. Donations are suggested to the American Cancer Society. (*The San Diego Union Tribune*). *The Scripps Log August 15 - August 22, 2003 no. 40 vol. 32*

Parker, Frances Lawrence (1906-2002)

Frances Lawrence Parker died last week, a few days short of her 96th birthday. Parker was on the research staff at Scripps from 1950 to 1973, when she retired from her position as Research Paleontologist. She continued to work until the mid-eighties, at her office at the third floor of Ritter Hall. Parker was one of the great pioneers of modern micropaleontology and paleoceanography. She had unusual acuity in taxonomic discrimination, and single-handedly put together a natural system for planktonic foraminifers that has stood up to modern methods of

testing relatedness. Her paper on the subject (published in 1962) has never been superseded. She was an expert in the recognition of modern benthic foraminifers as well, and early on realized their importance as indicators of environment of deposition. Also, she was among the world experts in the foram stratigraphy of the late Neogene. Her work on cores from the Swedish Deep-Sea Expedition in the eastern Mediterranean introduced a quantitative method of using warm-water and cold-water plankton species for plotting climate cycles in the ice ages. Hers was the first such plot using the entire suite of planktonic foraminifers. She was one of the first to study microfossils from deep-sea sediments recovered by deep ocean drilling (in samples from the experimental Mohole, which preceded the Deep Sea Drilling Project). In 1981, Parker received the Outstanding Achievement Award from the Cushman Foundation. A bank in the Gulf of Mexico is named in her honor, in recognition of her important work on foram distribution on the margin of the Gulf. At SIO, the Frances Parker Program in Public Education in the Earth Sciences, initiated with her generous support, keeps the memory of her legacy alive. We who knew Frannie will always remember her as a cheerful and pragmatic New Englander whose highest priorities were meticulous investigation and observation, and fairness and generosity toward all colleagues young and old. She thoroughly enjoyed doing science; the microscope was her favorite tool, foraminifera and ocean history were her favorite subjects. (Wolf Berger). *The Scripps Log March 29 - April 5, 2002 vol. 39 no. 12*

Pawka, Edward J. (1913-2005)

PAWKA FAMILY NEWS - We are sorry to report the passing of Ed Pawka. Ed and his family were major contributors to the development of the Steven Pawka Memorial Green. Support was given in memory of their son Steven, who earned a Ph.D. here at SIO. The Pawka Green has become a beautiful landmark and a very useful venue. The entire SIO faculty and staff express their condolences to the Pawka family. (John Steinitz, x43522). *The Scripps Log July 15 - July 22, 2005 vol. 42 no. 28*

Pazan, Stephen Edward (1943-2004)

Ph.D. 1975, Oceanography, Scripps Institution of Oceanography (UC San Diego)

On March 31, Steve Pazan died at USC University Hospital. He was a graduate of UC Berkeley and then USC in high energy physics and physical oceanography. At Scripps Institution of Oceanography he was the NORPAX Data Manager and then helped to establish the JEDA Center. During his career, Steve was involved in the analysis and management of many oceanographic data sets used in climate research, and in particular, the study of El Nino. In 1993 he retired from Scripps and started a consulting firm, Ocean Prospects. Steve had many publications to his credit, the most recent one with Peter Niiler appeared in EOS on January 13, describing a global Lagrangian drifter data set that he had recently compiled. Other than a dedicated scientist, Steve will be remembered as a good friend and a conversationalist who read widely--science, history, philosophy, religion--and remembered everything. He also loved music and dance, and was a tenor in his church choir. In his busy retirement, Steve found time to publish "Waterproof Maps for Diving in San Diego." Steve is survived by his wife, Kerry Nare, and two sons, Mike and Jim. His family's personal web page can be found at

<http://homepage.mac.com/spazan/home/> . The memorial service and internment will be at 1:30

p.m., on Sunday, April 18, at Bethlehem Lutheran Church, 925 Balour Drive, Encinitas. In lieu of flowers, donations in his memory may be made to California Carcinoid Fighters, the non-profit foundation he founded to promote carcinoid cancer education and to encourage the establishment of carcinoid support groups. Please send donations to: Treasurer, California Carcinoid Fighters, P.O. Box 7148, Capistrano Beach, CA 92624-7148. *The Scripps Log* April 16 - April 23, 2004 vol. 41 no. 15

Pedroza, Raymond M. (1973-2009)

RAYMOND PEDROZA - Raymond Pedroza, a marine mechanic at the Marine Physical Laboratory, was killed in a car accident along with his wife and his father in Mexico on January 9, 2009, while returning from a family vacation. Ray's two sons, Ray Jr. (13) and Christopher (10), were also involved in the accident. Ray Jr. sustained serious injuries and is being treated at St. Joseph's Hospital in Phoenix. Chris sustained milder injuries and is now home in San Diego. Ray had been with MPL since 2006. One of Ray's areas of expertise involved assisting in mooring the R/P *FLIP* on its cruises. Ray accomplished this difficult task with skill, determination and great physical effort, more often than not under very challenging sea conditions. He was known to everyone at MPL as an extremely warm person with a great sense of humor, who was devoted to his wife, kids and family. Ray will be missed very much. Donations to the trust fund established for Ray's boys can be made at any Washington Mutual Bank in the name of "Raymond and Christopher Pedroza Benevolent Fund." Donations can also be left with Joy Frye in the Director's Office. Checks should be made out to Raymond and Christopher Pedroza. (Anne Footer, afooter@ucsd.edu, x41802). *The Scripps Log* January 16 - January 23, 2009 vol. 45 no. 2

Peterson, Ray G. (1952-2001)

PETERSON - We are very sad to report that Ray Peterson passed away on Wednesday, December 6, from a protracted illness. He was 49 years old and very much in the prime of his professional and private life. Ray received his Ph.D. at Texas A&M University in 1987 under Worth Nowlin, measuring the transport of the Antarctic Circumpolar Current through Drake Passage. His post-doc work was done from 1988-1990 at the Institut fur Meereskunde in Kiel, Germany, under Gerold Siedler, measuring the circulation in the South Atlantic Basin off the *Polarstern*. Ray came to SIO in 1991 as an assistant research oceanographer and was promoted to associate research oceanographer in 1997. While at SIO he continued his studies of the circulation in the Southern Ocean, collaborating with Warren White on the Antarctic Circumpolar Wave; with Janet Sprintall on establishing high-resolution XBT sections across Drake Passage; with Terry Chereskin on the "fast fish"; and with Russ Davis on the Lagrangian drifter measurements of the Malvinas Current. He was equally at ease at sea deploying his instruments and at home analyzing the results. Oceanography was not only his vocation; it was also his avocation. To say that he was dedicated to physical oceanography would be a serious understatement. He was equally at home discussing science, history, and theology, all three subjects about which he was very passionate. While Ray was quiet and reserved, very serious almost to a fault, and the last to blow his own horn, he put his mark on just about everyone who worked with him. You just could not help yourself from becoming a better scientist and a more

caring person for having known him. A memorial service was held last week. Cards or phone calls may be made to his wife of 11 months, Dorothy Nowroozian-Peterson, 1220 Navello Street, El Cajon, CA 92021, (619) 749-3339. (Warren White). *The Scripps Log* December 14-December 21, 2001 vol. 38 no. 50

Price, William Hayden (1942-2010)

William H. "Skip" Price, former SIO marine technician, died October 13 from a severe reaction to a rattlesnake bite. He was bitten in East County while volunteering with his fly-fishing club in a study of native trout populations. He was 67. A long-time La Jolla, Skip acquired his love of nature and the sea at an early age as a local diver. In the late 1960s, he joined SIO as a technician working with Arnold Bainbridge in New Zealand on the establishment of the first continuous atmospheric CO₂ monitoring station in the Southern Hemisphere. In the early 1970s, Skip returned with Bainbridge to La Jolla, where he became one of the early members of the pioneering GEOSECS Operations Group and a watch leader for deck operations on many of the Atlantic and Pacific GEOSECS expedition legs. After leaving SIO, Skip followed his love of the sea and fulfilled his nickname by becoming a licensed commercial skipper on privately owned vessels. At SIO, and especially at sea, Skip established a reputation for good nature, common sense, hard work, and mentorship of others. He will be missed particularly by all of us who knew and sailed with him. (Ray Weiss, rfweiss@ucsd.edu, x42598). *The Scripps Log* October 29 - November 5, 2010 vol. 46 no. 43

Pritchard, Donald William (1922-1999)

M.S. 1948, *Oceanography*, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1952, *Oceanography*, Scripps Institution of Oceanography (UC Los Angeles)

Donald W. Pritchard, 76, an oceanographer who was a founder and first chairman of the Johns Hopkins University Oceanography Department, died April 23 after a stroke. Pritchard was a meteorology student at UCLA in 1946, and went on to receive his doctoral degree from Scripps Institution of Oceanography. He was an oceanographer with the Navy Electronics Laboratory in San Diego before moving to Maryland. From 1949-1973, he was director of Johns Hopkins Chesapeake Bay Institute. He was affiliated with the State University of New York at Stony Brook from 1978-1986. Until 1997, Pritchard was a consultant to government, private, and professional groups. He was involved in many organizations and was an author of many technical works. Donald Pritchard is survived by his wife the former Thelma Lydia Amling, two sons, two daughters, 11 grandchildren, and 3 great-grandchildren. (*Washington Post*, 4/25/99). *The Scripps Log* April 30 - May 7, 1999 vol. 36 no. 17

Rader, Philip Scott (1927-2008)

PHILIP SCOTT RADER - May 30, 1927-April 22, 2008. Principal Marine Chemist, Expedition EquaPac, August-September 1956. Phil recalled, "The ship had a wicked slap. One day a wave came and knocked lids off all the reagent bottles. I slipped and fell, and sulphuric acid spilled on me. I went below and showered, then came back up and rebuilt the lab. We never missed a station." He and his wife, Sarah, lived in the grand Horton House on Mission Bay, owned by Judith Munk's family. Philip later became a professor of Chemistry at San Diego State College. He is survived by his daughter, Rebecca. Philip remained proud of his time at Scripps, and was often seen at Ancient Mariner functions. (Kevin Hardy, kevin_hardy@deepsea.com). *The Scripps Log* August 29 - September 5, 2008 vol. 44 no. 35

Raff, Arthur Datus (1917-1999)

RAFF - Arthur Datus Raff died 20 August in San Diego. He and Ronald Mason (Imperial College, England) were the first to illustrate lines of magnetic stripes on the seafloor. After service in the Army during World War II, Raff was employed at the newly established Marine Physical Laboratory. He first worked for Russell Raitt on seismic refraction studies, for which he built, tested, and maintained the equipment. He was on Capricorn Expedition in 1952-53. He also sometimes served as the "second ship" for refraction work by setting off explosives from a lifeboat for the recording ship -- an "eerie, lonely feeling," he said. Roger Revelle learned in 1955 that the U.S. Coast and Geodetic Survey was planning a hydrographic survey with the ship Pioneer off the West Coast on a closely spaced grid. He obtained permission for measurements of seafloor magnetism during the survey and brought Ronald Mason to Scripps for that work. Raff was put in charge of assembling the magnetometer from surplus units and repairing it, and he then went to sea on many of the Pioneer's trips. These were three week trips, followed by a week in port, month after month (but not in winter). Mason showed Raff how to analyze the data, and they were coauthors on two significant papers in 1961 in the Bulletin of the Geological Society of America. The magnetic stripes, though incomplete, startled geophysicists. Victor Vacquier continued and expanded the magnetics program at MPL from 1957. Such records became significant in establishing the concept of seafloor spreading. Raff continued as a development engineer with MPL and later the Deep Sea Drilling Program to retirement in 1979. An account in the *San Diego Union-Tribune* says that he was born 22 May 1917 in Venezuela to missionary parents, and graduated from Union College (Lincoln, Nebraska) with a degree in physics. Art was seriously incapacitated some years ago when he fell while working on the roof of a rental property he owned. In recent years he enjoyed reminiscing about his work at MPL. Funeral services were August 25. Survivors are Art's wife Carolyn, a daughter, and a son. Donations are suggested to the American Heart Association. (Betty Shor). *The Scripps Log* September 3 - 10, 1999 vol. 36 no. 35

Rapp, Philip H. (1929-2005)

Our friend Phil Rapp died Thursday, February 24, from a heart attack. Phil was a long time employee of the Marine Physical Laboratory (retiring in 1991) and spent his 28-year career as a scientific illustrator for MPL and SIO. He illustrated many unique instruments designed by scientist and engineers and produced artwork and figures for many journal publications. He was also a photographer and put together video productions of *FLIP* (back in the early days of video!) He once drew a giant squid attacking *FLIP* and this became a very popular image on T-shirts and is still being used. Phil had many health challenges as a young child and achieved the Eagle rank in Boy Scouts at a young age. He continued to spend his entire life being an over achiever...he never knew the word "can't." He left everyone that came in contact with him smiling and happy. He had a unique laugh and was the consummate jokester! Phil was a small man but he made up for it in his large personality, wonderful charm, and his love for life. For those of us who knew him well -- we will miss him very much. If you would like to make a donation on behalf of Phil, the family requests donation to the Coast Guard Auxiliary, 2716 N. Harbor Drive, San Diego, CA 92101. (Pat Jordan). *The Scripps Log* March 11 - March 18, 2005 vol. 42 no. 9

Ray, Timothy Allen (1980-2011)

TIMOTHY RAY - Timothy Ray, a third year doctoral student at Scripps Oceanography, passed away suddenly at his home on May 16. In his 31 years, Tim led a remarkably full and varied life. He was a graduate of the U.S. Naval Academy (B.S. Oceanography, 2002) and the Naval Postgraduate School, Monterey (M.S. Physical Oceanography, 2003), and he served in the U.S. Navy until 2007 as a Naval Oceanographer. Tim was an extraordinary athlete, as a distance swimmer while at Annapolis, and recently as a core member of the UCSD Triathlon Team. He'd completed the Boston Marathon in April. Tim was an outdoorsman with a strong and personal commitment to living in tune with the planet and practicing environmental sustainability. As an oceanographer and climate scientist, Tim's work at Scripps meshed perfectly with his life. He was carrying out pioneering research on interannual variability in ocean salinity, using new data from the Argo Program. His concept of salinity as the "oceanic rain gauge" was demonstrating that regional variations in Tropical Pacific evaporation and rainfall could be monitored very sensitively from their accumulated impacts on ocean salinity. Beyond the basic science, as a student in the Integrative Graduate Education and Research Traineeship (IGERT) program, Tim's unique commitment was to understanding the societal value and implications of his research on the Earth's freshwater cycle, and to communicating this to the public and to policy makers. His poster on the "Oceanic Rain Gauge" is a finalist in the May 25 IGERT national poster competition in Washington, D.C. Tim is survived by his parents, Larry and Julie Ray, by his two brothers, Chris and Steve, by girlfriend, Bethany Sotak, and by an amazing number of friends and colleagues whose lives his had touched and moved. Tributes to Tim are posted on the Scripps website (http://sio.ucsd.edu/Announcements/Timothy_Ray/) and the UCSD Triathlon Team website (http://www.ucsdtriathlon.org/tim_ray/). Dean Roemmich, droemmich@ucsd.edu, x42307). *The Scripps Log* May 20-May 27, 2011 vol. 47 no. 20

Rechnitzer, Andreas Buchwald (1924-2005)

M.A. 1951, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1956, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

Andreas B. Rechnitzer (1924-2005), SIO Ph.D.'56. Andy was a student of professor Dr. Carl Hubbs. In 1955, Hubbs and Rechnitzer discovered and identified the striped yellow fish that now serves as the official logo of Scripps's Birch Aquarium (*Chaetodon falcifer*). While at Scripps, then part of UCLA, Andy, Connie Limbaugh, and Jim Stewart developed the first SCUBA diver training program for ocean scientists, and included such innovations as ditch-and-don, buddy breathing, and the buddy system. That SCUBA training program is the basis of all major sport diving certification programs in the world today, including PADI and NAUI. Upon graduation from SIO, Andy considered staying at Scripps, but Roger Revelle told him to head out into the world. Later, Andy recalled, "It was the best advice he could have given me." As a member of the U.S. Navy-ONR Evaluation team, Rechnitzer was instrumental in negotiating the purchase of the deep diving bathyscaphe, *Trieste*, from Swiss physicist Auguste Piccard. Rechnitzer, along with Scripps alumni, Art Maxwell, and Captain Charles Bishop, USN, (later with MPL), had *Trieste* brought from Italy to San Diego's Naval Electronics Lab (NEL) on Point Loma. Rechnitzer, a civilian scientist, was made Scientist-in-Charge of Project NEKTON. On January 23, 1960, *Trieste* dove with pilot Don Walsh and observer Jacques Piccard 35,800-ft into the

Challenger Deep in the Mariana Trench, the deepest ocean depth. The success kick-started deep submergence development in the U.S., and many businesses in San Diego. Rechnitzer was awarded the Navy Department Distinguished Civilian Service Award by President Dwight Eisenhower. He was part of the scientific staff for the Chief of Naval Operations and Oceanographer of the Navy from 1970-1984. He joined SAIC as Senior Scientist from 1985-1998. In 2002, the History Channel aired the special *The Deepest Dive*, recounting the obstacles and milestones on the way to the bottom of the sea. Andy was also an early pioneer of K-12 outreach, authoring segments of books on hands-on marine science for young students. He founded and was first president of the Ocean Institute (Dana Point, CA), which continues to collaborate with Scripps scientists as an informal center of education today. "A great man passed my way, and I shall miss him." said former *Trieste* pilot Tony Dunn. A memorial service at Scripps is being planned. (Kevin Hardy, khardy@ucsd.edu). *The Scripps Log August 26 - September 2, 2005 vol. 42 no. 34*

Revelle, Ellen Virginia Clark (1910-2009)

ELLEN REVELLE - Scripps has lost a legend. Ellen Revelle, matriarch of Scripps Institution of Oceanography, passed away early Wednesday morning after suffering a stroke. Ellen was the wife of Roger Revelle, our former director, legendary statesman of science, and the founder of UC San Diego. We lost Roger in 1991. Together, Roger and Ellen created a spirit of excitement and dedication to Scripps that lives in all of us here today. Ellen Virginia Clark Revelle was born in 1910, here in La Jolla, Calif., and was named for her great-aunt, Ellen Browning Scripps, long-time benefactor to Scripps Oceanography. Ellen greatly admired her aunt and tried to emulate her example, especially in public service and philanthropy. Ellen perpetuated the family interest in publishing and philanthropy and acquired an interest in science through her marriage to Roger in 1931. Ellen and Roger lived their early days on the Scripps campus and always returned to Scripps after ventures elsewhere in the world. Ellen gave her unwavering support to Scripps for nearly 80 years. When the Scripps Pier, which her Aunt Ellen funded in 1912, needed to be replaced in 1986, Ellen contributed to help build the new Ellen Browning Scripps Memorial Pier. In 1965, Ellen dedicated the new Scripps research vessel, R/V *Ellen Browning Scripps*. And then, in 1996, an 86-year-old Ellen, and her daughter, Mary, sailed on the 10-day maiden voyage of R/V *Roger Revelle*. A very spry and spunky Ellen was seen scrambling up and down the ladders and throughout the decks with boundless energy, keeping up very well with all onboard. That's the Ellen we all remember and cherish. Our hearts go out to Ellen's children Anne, Mary, Carolyn, and Bill, and to her grandchildren and great-grandchildren. We will never forget Ellen. See the May 10 CALENDAR item below for details about Ellen's memorial service on Sunday. (Scripps Communications, scrippsnews@ucsd.edu, x43624). *The Scripps Log May 8-May 15, 2009 vol. 45 no. 18*

Roads, Garrett Owen (1985-2002)

ROADS - It gives me great sadness to tell you that a member of our Scripps family has experienced a great loss. The 17-year-old son of Dr. John Roads, Research Meteorologist in the Climate Research Division, was killed in an automobile accident on Friday, October 25, 2002. Garrett Owen Roads was traveling through Los Angeles with his mother and grandmother, on their way to see his sister at college, when an out of control vehicle struck their car. Garrett, a junior at Mt. Carmel High School, was born in San Diego at UCSD Medical Center on June 19, 1985 and lived in San Diego all of his life. Garrett began swimming at an early age and was a

member of several swim teams and water polo teams, including a San Diego Shores team that obtained a national championship bronze medal. He obtained his varsity letter in swimming from Mt. Carmel. Garrett also participated in several San Diego Junior Lifeguard programs and was a lifeguard at the Miramar Air Base. Garrett planned to study business in college. Garrett also volunteered for the Academic Mentor Program of Poway School District and babysat for many parents in his neighborhood. Garrett liked to make his friends laugh and was a joy to have around. Services will be held at the Church at Rancho Bernardo, 11740 Bernardo Plaza Court, San Diego, CA, 92129, 858-592-2434, at 3 p.m. Saturday, Nov. 2. In lieu of flowers, donations are requested for a trust fund in Garrett's name, which will be used to support the Academic Mentoring Program and the Mt. Carmel Swim Team. Details will be available following the service. Our thoughts are with his parents, John and Lori, his sister Emily, grandmother Linda Loehr, Rancho Santa Fe, CA., grandmother Candee Henderson, El Centro, CA., and grandparents Paul and Grace Roads, Lafayette, CO., as well as his many other family members. *The Scripps Log November 1 - 8, 2003 vol. 39 no. 43*

Roads, John Owen (1950-2008)

JOHN ROADS - It is with deepest regret I inform you that research professor Dr. John Owen Roads is no longer with us. His passing I know came as a shock to many, but his legacy will forever live on....John was one of the most amazing people I ever had the privilege of working with, and I know my sentiments are not alone. Someone told me once, "John is one of Scripps's finest," and I couldn't agree more. Not only was his brilliance undeniable, but he celebrated the genius in others, making each person feel that their unique talent enriched his life. I know he will be missed dearly...In lieu of flowers, the family requests donations to a trust fund established in Roads's name, which will enable Scripps graduate students to attend climate science conferences." Should you wish to contribute to the newly established fund in John's honor, donations should be made out to UC Regents and should reference the John Roads Memorial Scholarship fund. They can be sent directly to: Scripps Institution of Oceanography, UC San Diego, 9500 Gilman Dr., # 0210, La Jolla, CA 92093-0210. Should you have any questions, please feel free to contact me, and I will be happy to assist you. (Nirvana Singh, x47776, nisingh@ucsd.edu). *The Scripps Log June 27 - July 4, 2008 vol. 44 no. 26*

Robinson, Margaret King (1906-2006)

M.S. 1951, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

ROBINSON - Former longtime head of the Bathythermograph Unit at Scripps, Margaret Robinson, passed away in La Jolla on February 20, just three days shy of her 100th birthday. Robinson joined the Scripps staff in 1946. Scripps had established a Bathythermograph (BT) Unit in 1945 to process BT data under navy contract. The BT unit was largely staffed by women. First a clerk, Robinson advanced through the ranks, eventually heading the BT Unit beginning in 1957. The work of the unit was supported by grants from the Office of Naval Research until 1961. Robinson also received large grants from the U.S. Naval Oceanographic Office for the digitization of BT observations. In 1960, she began receiving grant support from the National Science Foundation, which continued until 1974. As an expert in processing, analyzing, and archiving BT data and a pioneer in the use of computers to analyze oceanographic data, she lectured widely and traveled throughout the world to scientific meetings. UNESCO appointed her a technical expert in the hydrographic department of the Thai Royal Navy, 1962-1963; she advised the government of Thailand just after Scripps's Naga Expedition (1959-1961), which

explored the Gulf of Thailand. She retired from Scripps in 1973. She is survived by her two children, a daughter, Renan Suhl, and a son, Dr. Creighton H. Robinson; five grandchildren; and nine great-grandchildren. A private celebration of her life will go on as planned for her 100th birthday on February 26. No services are planned. *The Scripps Log February 24 - March 3 2006 vol. 42 no. 8*

Rogers, Mildred L. (1914-2000)

It is with great sorrow that we announce the death of a longtime friend of MPL and SIO. Mildred Rogers was 86 when she passed away a few weeks ago. Mildred came to work for SIO starting as Dr. Roger Revelle's secretary on July 28, 1952. After four years, she joined the Marine Physical Laboratory as Dr. Fred Spiess' secretary, and from 1966-1977 she worked directly under Dr. George Shor as our Sverdrup Hall secretary. She retired September 30, 1977, after 25 years of service to SIO/UCSD, and enjoyed her retirement immensely. She was a frequent attendee at our MPL Christmas parties and we last saw her at Fred Spiess' 80th birthday party. There was never a dull moment with Mildred around as she would spark up a conversation and talk for hours. We will greatly miss her. *The Scripps Log October 13 - October 20, 2000 vol. 39 no. 41*

Rosfelder, Andre M. (1925-2011)

ANDRE ROSSFELDER - Dr. Andre Rosfelder, research associate-collaborator in Francis Shepard's group (1965-69), passed away here on the 7th of February. A longtime resident of La Jolla, he valued his SIO experiences. Algerian born, Andre was a member of the French Resistance" early in World War II, and a decorated combatant during two campaigns, receiving the Croix de Guerre and Medaille Militaire as a paratrooper. Following that war he studied geology and then made and consolidated oil discoveries in Algeria, becoming president of his own production company at the age of 25. After nationalization of that oil industry he obtained his Ph.D. in oceanography, with emphasis on engineering aspects. Following Algeria achieving its independence from France, Andre left and took a position with the United Nations-FAO offices in Rome. From there he came to Scripps. Throughout his career Andre designed and patented devices and developed procedures for deep-sea mineral assessment and recovery (manganese, cobalt, nickel) as a consultant for major corporate operations (1969-1972). Then as entrepreneur in his own organization (1972-1995) he directed on-site the discovery and evaluation of resources--underwater phosphate and chromite deposits, high-grade carbonates--at more than 80 Pacific island and atoll sites throughout the entire inter-tropical latitudes. A repeatedly honored novelist and historian, Andre Rosfelder won the Prix Goncourt du Recit Historique for his account *Clipperton: L'ile Tragique* about the isolated Eastern Pacific atoll visited by SIO investigators on occasion since 1952. His *Le Onzieme Commandement* (2001) sold very widely. His most recent book is the masterfully researched *In Search of Longitude: Magellan and the Anti-meridian* (2010), a treatment of the geopolitical rivalries and potential personal rewards driving an early 16th Century Iberian endeavor. In recognition of Andre's adventurous life of applied exploration, in 2001 he was elected a Fellow of the Explorer's Club. (Bob Fisher, Neil Marshall). *The Scripps Log February 18 - February 25, 2011 vol. 47 no. 7*

Saltman, Paul D. (1928-1999)

Paul Saltman, a well-respected and much-loved UCSD professor of biology, a nationally renowned nutrition expert, and an academician/communicator who reveled in the disciplines of

scholarship, teaching, and service, died August 27. Paul worked at UCSD for 32 years. His real passions were teaching and research. When asked what were the ingredients of a great teacher, Paul once concluded: knowledge, skills, the ability to comprehend the process of human understanding, and the ability to inspire students and excite them with the notion of learning. Among his many and varied honors, students honored him with the Excellence in Teaching Award from USC and three colleges at UCSD. He was named the UCSD 1999 Honorary Alumnus of the Year and the Paul D. Saltman Chair in Science Education was established this year in his honor. He was an avid sportsman all his life, from basketball to surfing. He is survived by his wife Barbara and their two sons David and Joshua, and five grandchildren. Donations may be made to the Paul Saltman Endowed Chair for Teaching Excellence, c/o the UCSD Foundation, 0940. *The Scripps Log* September 10 - 17, 1999 vol. 36 no. 36

Scholander, Susan Irving (1918-2012)

SUSAN SCHOLANDER - Susan Irving Scholander, the wife of the late Scripps professor Per (Pete) F. Scholander, died on Sept. 12 at the age of 94. She was the daughter of the late Laurence Irving, professor at the University of Alaska and longtime Scholander colleague in physiological research. Susan had a master's degree in ornithology and published papers in this field; she was an avid birdwatcher all of her life. Susan arrived with Pete in La Jolla in 1958, just at the start of the development of UC San Diego. She quickly became a part of the vibrant academic community that evolved after Roger Revelle began to assemble distinguished personnel for the new campus, all of which initially had their laboratories and offices at Scripps. Susan participated in many social activities as the campus grew. At their home near Scripps, Susan and Pete frequently hosted elaborate dinner parties to which professors, students, support staff, and even Nobel Prize winners were invited. These enjoyable evenings were important parts of Susan's life and encouraged many friendships as newcomers were welcomed into the UCSD community. She was also very active in the Oceanids and international organizations on campus. Among all of these activities, Susan found time to support and help Pete in his professional activities, and completed his autobiography after his death in 1980. For those of us who were part of the Physiological Research Laboratory, now Scholander Hall, and many others around the Scripps campus and beyond, the passing of Susan truly marks the end of an era. We came to explore and discover and along the way learned about camaraderie and gracious living exemplified by the Scholanders. Susan is survived by her brother, Larry Irving, sister-in-law, Kathy Irving of Fairbanks, Alaska, two nephews, and one niece. Memories of her quiet, gracious manner will remain with her admiring friends and family. (Alan Hargens, ahargens@ucsd.edu; Gerald Kooyman, gkooyman@ucsd.edu; Melba Kooyman, mkooyman@ucsd.edu; Edvard Hemmingsen, edvardah@gmail.com; Larry Irving, lkirving@gci.net; Carole Mayo, cmayo@san.rr.com). *The Scripps Log* November 9-16, 2012 vol. 48 no. 45

Schultze, Thea (1924-2010)

THEA SCHULTZE - Thea Schultze, who worked at Scripps for 30 years, died peacefully under hospice care at the Cloisters Nursing Facility in La Jolla on August 25. Thea was born in Hamburg, Germany, on February 6, 1924. She received a degree in education, and worked as a kindergarten teacher. She moved to San Diego after World War II to live with an aunt and uncle. Thea started work as a lab technician at Scripps in 1956, first with Dr. Ted Walker, and the next year with Dr. E. W. (Bill) Fager, where she remained until Fager's death in 1976. Subsequently, she went to work with Dr. Paul Dayton's group, and part time with Dr. Loren Haury, until she

retired in 1986. During her years at Scripps, she became an expert taxonomist, picking and identifying both infaunal and planktonic animals. She established voucher collections that are still in use. Thea was an enthusiastic supporter of worthy causes. She volunteered her lunch hours to help start the UCSD Credit Union, drafting willing graduate students to move the credit union to the small on-campus offices in the International Center. She retired from Scripps in order to devote her time to children, first at the San Diego Arc program, and later at the UCSD daycare Center. Because of Thea's close attention to the well-being of Scripps' students she is fondly remembered as a "den mother," confidant and advisor on matters from scientific to social, but, when necessary, a stern disciplinarian. Memories of Thea unite graduate students across years: her laugh, her loyalty, her strong ethical code, her birthday cakes (layered with pie filling instead of frosting), and, of course, the Flipper Dance. Old Ritter Hall was characterized by Thea's loud and joyful spirit as she kept track of her extended flock. She was a powerful influence in the lives of more than a hundred students, and she is missed but not forgotten. (Annie Townsend, Paul Dayton, Elizabeth Venrick). *The Scripps Log September 3 - September 10, 2010 vol. 46 no. 35*

Scripps, Charles Edward Sr. (1920-2007)

Scripps has lost a longtime supporter and friend. Charles E. Scripps, who made his home in Florida in recent years, passed away on Saturday at age 87. Until he retired in 2003, he was chairman of the media company, E.W. Scripps Co. He is credited with shaping the success of that organization, which now includes broadcast television, cable TV systems and networks, and the internet. His gifts to Scripps spanned 30 years, benefiting the aquarium, the restoration of the Old Scripps Building, the E.W. Scripps Associates, and the Robert Paine Scripps Forum, which was named for his father. Forum plans include the Charles E. Scripps Meeting Room. His family has suggested memorial gifts to a number of organizations, including Scripps. *The Scripps Log February 9 - February 16, 2007 vol. 43 no. 6*

Scripps, Robert Paine (1918-2012)

ROBERT P. SCRIPPS - The death of Robert P. Scripps of Fredericksburg, Texas, on Oct. 18 marked the end of an era for the founding family of Scripps Institution of Oceanography. Bob Scripps, a grandnephew of Ellen Browning Scripps, was the last surviving grandson of E.W. Scripps. E.W. and Ellen, along with William Ritter, created the institution that bears the family's name. Bob's father, Robert Paine Scripps, carried on the family tradition of support for Scripps Oceanography by twice increasing the family's annual contributions, making it possible for Scripps Oceanography to survive the Great Depression. Bob himself became a noted philanthropist, supporting not only Scripps Oceanography but many other organizations and programs around the country. Bob, the eldest of Robert Paine Scripps's six children, was born and raised at Rancho Miramar north east of San Diego. Bob was drafted into the army in 1941. After the war, he moved to west Texas where he farmed and raised bees. That's where he met his wife Mariana Rocha, and they began to raise their family of eleven children. In addition to farming, Bob was also active in the family businesses and served as a director of The E.W. Scripps Company from 1949 until 1997. Bob reconnected with Scripps Oceanography in the 1970s when Don Willkie, director of Scripps Aquarium, visited Bob in Texas. Don recalls, "Bob Scripps and his family have been supporters of Birch Aquarium at Scripps from its conception. He not only contributed funds for the new facility, but also encouragement for those planning the project. We are fortunate to have had the support of his family in our efforts to provide public

education in the tradition of the institution's founding family.” Bob and his family helped create the Robert Paine Scripps Forum for Science, Society, and the Environment, and one of the Forum’s large conference rooms is named in Bob’s honor. In recent years, Bob was also a loyal supporter of Birch Aquarium at Scripps’ education programs. Bob Scripps was a big man in more ways than one. He had strength of character, gentleness, and generosity that will be sorely missed. (Lawrance Bailey, lawrancebailey@hotmail.com). *The Scripps Log* November 2-9, 2012 vol. 48 no. 44

Sessions, Meredith Herbert (1938-2011)

MEREDITH SESSIONS - Meredith H. “Rip” Sessions died of cancer at his Del Mar home on December 27, 2011. He was 73. He graduated from SDSU in physics in 1959 and began his Scripps career that year. He made significant and innovative contributions to numerous ocean and atmospheric science projects, involving a wide range of technical and engineering issues. Examples include some of the earliest deep ocean mooring systems with required solutions to attendant problems of sensors, data recording, mechanical survivability, corrosion and biological fouling; electronics and data recording/transmission developments for the distributed real-time coastal wave monitoring network CDIP; adaptation and calibration of Navy- and NOAA-standard airborne ocean temperature probes (AXBTs) to enable the collection of survey data at oceanographic levels of accuracy by this operational system, and more. He applied his expertise to projects with Larry Armi, Tim Barnett, Russ Davis, Bob Knox and Dick Seymour at Scripps, with John Bane (Univ. of North Carolina) and with many others. A Principal Development Engineer, he took early retirement in 1991 but quickly returned to post-retirement employment on a per-project basis, with equally broad engineering contributions to those efforts. He was an avid aviator, a fine cook, and always curious about the wide world and its many places, people, and cultures. There was no better companion for a flight or cruise, or for R&R afterward. He was closely attended at the end by two brothers and numerous friends, and appreciated their presence. A fuller appreciation of his life and accomplishments appears on the Scripps website (<http://sio.ucsd.edu/Announcements/Sessions/>). There are tentative plans for a memorial gathering at Scripps; details will be announced when they become known. (Bob Knox, rknox@ucsd.edu, x44729). *The Scripps Log* January 13-January 20, 2012 vol. 48 no. 2

Shackleton, Nicholas John (1937-2006)

Sir Nicholas Shackleton FRS, one of the principal founders of the field of isotope paleoceanography, the theory of the ice ages, and the history of the global carbon cycle, died January 24 at age 68. Sir Nick was emeritus professor in the Department of Earth Sciences and former director of the Godwin Institute of Quaternary Research at Cambridge University. Among his many scientific accomplishments, Sir Nick played a key role in developing the first detailed record of Cenozoic carbon isotopes and an understanding of the role of the carbon cycle in regulating Earth's climate. His Cenozoic carbon isotope record has been a standard for many modeling studies of the history of the carbon cycle. Recently, he substantially revised the chronology for ice volume changes over the last 400,000 years, clarifying long-standing puzzles about the behavior of large ice sheets, and implicating carbon dioxide concentration changes more firmly in the geological record of climate change. Sir Nick was an active participant in the Ocean Drilling Program and its predecessor, the Deep Sea Drilling Program. He was also a guiding light in the International Paleoceanography meetings and a regular participant (with his clarinet) in the "Paleomusicology" concerts. He was given to wearing sandals, an open shirt, and

ponytail---an informality not usually associated with the stuffy corridors of Cambridge. The grandson of the Polar explorer, Ernest Shackleton, Sir Nick was a preeminent intellectual explorer in his own right. He was, without question, our most influential elder statesman in paleoceanography---a stature recognized by Queen Elizabeth when he was knighted in 1998. Sir Nick leaves a legacy of a weighty collection of papers, superb students, and indebted colleagues. (Dick Norris, rnorris@ucsd.edu). *The Scripps Log February 3 - 10, 2006 vol. 42 no.5*

Shor, George G., Jr. (1923-2009)

GEORGE G. SHOR, JR. - George G. Shor, Jr., emeritus professor of geophysics at the Marine Physical Laboratory, died July 3, 2009, at home. He was 86. George began at Scripps Institution of Oceanography in 1953 as an assistant research geophysicist, became a professor in 1969, and was an Associate Director from 1968 until his retirement in 1991. His research was determining the structure beneath the seafloor, using reflection and refraction techniques. He led many expeditions in the 1950s to the 1970s in the Pacific and Indian oceans. Shor and Russell W. Raitt selected the site for the Mohole. Shor was instrumental in establishing the Sea Grant program in California, located at Scripps, and he was its manager from 1969 to 1973. As Associate Director he was in charge of the Ship Scheduling office for some years, and he participated in the establishment of the University-National Oceanographic Laboratory System (UNOLS). Shor is survived by his wife, Betty (Elizabeth), two sons and a daughter, and seven grandchildren. A memorial will be scheduled probably in September. (Betty Shor, bshor@sio.ucsd.edu) . *The Scripps Log July 10-July 17, 2009 vol. 45 no. 27*

Shull, Charles Morel, Jr. (1922-2004)

Charles Morell Shull, Jr., age 82, passed away May 31, 2004. Charles, a graduate in Chemistry from the Colorado School of Mines, was a lifelong teacher and Professor Emeritus of the San Diego State University Dept. of Physical Science. After his retirement, he became a resident of his beloved Acme, Washington, in South Fork Nooksack Valley for 21 years. Charles and his wife, Lee, celebrated 52 years of marriage together. He is survived by his wife and their two daughters and three sons: Nancy Lee and Paul Kolk of Heiloo, The Netherlands; Suzanne of Bellingham, Washington; Charles III and Terry of Seattle, Washington; Michael and Yvonne of Birch Bay, Washington; and Stephen and Jeannie of Kihei, Maui; and 11 grandchildren. Some of you may remember that Suzanne did the first staff/faculty internship at SIO with Nan Bray at the Center for Coastal Studies. This seminal experience persuaded her to pursue her current career: working at a National Estuarine Research Reserve mapping nearshore vegetation. (Vanessa Cunningham Wassenar). *The Scripps Log July 30 - August 6, 2004 vol. 41 no. 30*

Shumway, George Alfred (1928-2011)

Ph.D. 1959, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

GEORGE SHUMWAY. George Shumway, a geologist with a three-generation connection to Scripps Institution of Oceanography, passed away on May 1, 2011, in York, Pennsylvania. George was a graduate of the Middlebury-MIT joint earth sciences program; he brought his bride Anne Revelle here to establish a home in La Jolla from 1950 through 1961. From the outset he was a member of the Scripps-born Seafloor Studies group at the Navy Electronics Laboratory (NEL), Point Loma. Meanwhile, he participated in Scripps expeditions, as the marine geologist in Warren Wooster's 1952 Shellback Expedition through summer 1957 and 1958 Navy icebreaker/helicopter seismic refraction observations with me in the Chukchi Sea and deep

Arctic basin north of Barrow. George received his doctorate here in 1959, on sound transmission characteristics of sediments, of interest to NEL's missions. An early SCUBA diver, he co-founded Geological Diving Consultants, moonlight-mapping indicative oil seeps on the Santa Barbara offshore. In 1961 George and Anne moved their family to York where he established, and wrote for, a publishing house specializing in Americana. In 1988 their daughter Caroly Anne received her doctorate from Scripps, with a study on sensory actions in hagfish, in the research group led by Walter Heiligenberg. (Bob Fisher, x43597). *The Scripps Log May 13-May 20, 2011 vol. 47 no. 19*

Silver, Paul Gordon (1948-2009)

Ph.D. 1982, Earth Sciences, Scripps Institution of Oceanography (UC San Diego)

PAUL SILVER - It's with great sadness that I report that Scripps alum Paul Silver and his youngest daughter, Celine, were killed in an automobile accident in North Carolina on Aug 7. Paul received his Ph.D. from Scripps in earth sciences in 1982 and was awarded the Carl Eckart Award for an outstanding thesis. Paul worked in the Department of Terrestrial Magnetism at Carnegie Institution in Washington, D.C., and studied how earthquakes are triggered and how they interact with each other by observing the slow redistribution of stress and strain that accompanies quakes. He pioneered the use of teleseismic shear wave splitting in measuring mantle anisotropy and the implications for tectonic deformation on large scales. He was an important leader in seismology, geodesy, and large-scale Earth structure. He was a Fellow of the American Geophysical Union and of the Geological Society of America. On a personal note, I had the pleasure of teaching some of the courses Paul took, took him to sea at least once, and my wife, Sharyn, and I always enjoyed dinner with Paul and his wife, Nathalie. One very pleasant memory was spending two weeks with him in Istanbul for an IASPEI meeting. Paul was a great drummer and we spent many evenings at open-air concerts and jazz clubs in Istanbul. Paul often joined the bands for a few sets. I miss him greatly. (John Orcutt, jorcutt@ucsd.edu, x26378). *The Scripps Log August 14 - August 21, 2009 vol. 45 no. 32*

Sinkankas, John (1915-2002)

John Sinkankas, 87, passed away on May 17. In the 1960s, Sinkankas worked as a research assistant in mineralogy at SIO, where he worked on lunar samples, examining the first samples of rocks from the moon. Sinkankas was born in 1915 in Paterson, New Jersey. By age seven, he had developed his lifelong love of mineralogy and geology. Yet, his early cultural activities were not limited to mineralogy. Sinkankas used his watercolor skills to paint illustrations for his books *Gemstones of North America and Emerald and Other Beryls*. He published 198 articles and books, served in editor positions at *Gems & Gemology Journal* and *Lapidary Journal* and wrote a column for *Rock & Gem*. Two of his most important gem carvings, a 7,000-carat quartz egg and the world's largest faceted golden beryl (2,054 carats), are featured in the Gem Hall of the Smithsonian's Natural History Museum. Between 1961 and 1963, Sinkankas accepted a position of editor on the staff of *Lapidary Journal*. He also found time to enroll as a special student at the University of California where he studied mathematics and languages. In 1984, in recognition of his contributions to the field, a new phosphate mineral was named for him -- sinkankasite. He is survived by his wife Marjorie, two daughters and one son, and many grandchildren. Donations may be made to the Richard T. Liddicoat Gemological Library, Attention: D. Dirlam, 5345 Armada Drive, Carlsbad, CA 92008. *The Scripps Log May 31 - June 7 vol. 39 no. 21*

Snodgrass, Robert E. (1947-1999)

I am saddened to report the sudden death of Robert E. Snodgrass, 51, of Del Mar, former senior aquarist and life-long friend of Scripps Institution. Bob died Wednesday evening at his home of a previously undetected heart condition. He first came to the old Scripps Aquarium as a Junior Oceanographer, then as a volunteer, and later as an employee from the late '70s through the early '90s. His love of fish and all things of nature was well known; his cheerful and joking ways were well appreciated; and his admiration and respect for Scripps Institution were exemplary. Bob, who retired in 1998, is survived by his two sons, his ex-wife, two brothers, a sister, and many friends who will miss his wisdom and his wisecracking. The Bob Snodgrass Memorial Fund has been established as an educational fund for his two sons, Owyn age 20 and Trystan age 14. Donations can be sent to Chuck Colgan, 0233. A memorial service on the Scripps Pier will take place Friday, October 29, at 3:30 p.m. (Chuck Colgan). *The Scripps Log October 29 - November 5, 1999 vol. 36 no. 43*

Spiess, Fred Noel (1919-2006)

Fred Noel Spiess died September 8, 2006 of multiple myeloma cancer. He was 86, born December 25, 1919. He is survived by his five children and their families. Fred was director of the Marine Physical Laboratory from 1958 to 1980, acting and then director of Scripps from 1961-1965 between Revelle and Nierenberg, director of the Institute of Marine Resources from 1980 to 1988, and, when he could have been in retirement, he led the planning of the academic program at the new UC campus at Merced. MPL Director Carl Eckart heard about this young physicist in 1952 and interviewed him to run the laboratory of Leonard Liebermann while he was on sabbatical. He continued at MPL after Liebermann's return. When he became its director, it was just when the Navy required the Navy Electronics Laboratory to cut back, so the staff members at MPL were no longer able to obtain equipment and supplies from the NEL stockroom. This was a major setback, but Fred managed to round up resources to keep MPL going on a truly sound basis--with considerable help from Finn Outler. Fred felt a strong commitment to the U.S. Navy, in which he served as a submarine officer during World War II, and then he stayed in the Naval Reserve to the rank of Captain at retirement. His interest in oceanography led him to trying to create equipment and techniques useful to the Navy. One result of this was the Floating Instrument Platform, FLIP. Fred was co-inventor, with Fred Fisher and Phillip Rudnick, of this remarkably stable unit, which has lasted much longer than anticipated. At MPL he found ways to provide support for a number of distinctive ocean devices created by the ingenious physicists and engineers there: ORB, RUM, Deep Tow--remarkably useful for many studies near the ocean floor. Fred led the development of a wireline re-entry system for research instruments to previous boreholes of the deep-sea drilling program. He led many expeditions at sea over 40 years. Spiess also devoted considerable time to the University of California, after having received his A.B. in 1941 and his Ph.D. from UC Berkeley in 1951, under Emilio Segrè, who expected his students to create their own equipment. At Scripps, Fred was chairman of the Graduate Department twice and he chaired or served on many committees, where he was noted for "doing his homework." He was vice-chair and chair of the university-wide Academic Council and Assembly. He chaired or co-chaired the committees of more than 20 graduate students. Fred and Sally (née Sarah Whitton) Spiess were married 60 years before she died in 2002. Together they led the effort to salvage Old Scripps Building. They were outstanding hosts for many oceanographers and students. Spiess was elected into the National Academy of Engineering in 1985. Among other honors, he received the Navy Distinguished

Service Award for leadership in ocean technology in 1990, having received the Navy's highest award for scientific achievement in 1974, the Captain Robert Dexter Conrad Award for "outstanding achievement in planning, conducting, and administration of research and development." These are just highlights. What all will remember about Fred Noel Spiess is his quiet demeanor, his confidence, his ethics, his leadership, and his devotion to family and the university. When not at sea, he did enjoy a glass of good Scotch at the end of the day. A memorial service for Fred will be held at the La Jolla Congregational Church, 1216 Cave Street in La Jolla, at noon on Sunday, September 17, immediately following the morning service. All friends and associates are welcome. A service at Scripps will be held in mid-October. Details forthcoming. (Betty Shor). *The Scripps Log* September 8 - 15, 2006 Volume 42 Number 36

Spiess, Sarah Whitton (Sally) (1923-2002)

It is with great sadness that we report that Sally Spiess has passed away. Always by Fred's side, Sally was a true role model for turning caring into action. She was a longtime civic leader in the La Jolla community and a key figure at Scripps. Sally died last Sunday of a heart attack. She and Fred had recently celebrated their 60th wedding anniversary. Sally's straightforward approach to life, great energy, and dedication to the institution made her an important part of Scripps for more than 50 years. She was born in Oakland, a fourth generation Californian, and she married her high school sweetheart Fred in 1942. Sally and Fred and their growing family moved to La Jolla in 1952, and together they have been at the center of Scripps ever since. In addition to raising five children, Sally was very active in the La Jolla community. Sally was FLIP's official sponsor, christening the ship at its launching in 1962 in Portland, Oregon. Also active on the UCSD campus, Sally was a founding member of Oceanids, a campus women's social group, more than 50 years ago, and she served in a variety of capacities, including president. She was honored as the 1994 "Oceanid of the Year." At Scripps, Sally was a tireless advocate and dedicated boundless energy to the institution. She was instrumental in saving the Old Scripps Building, built in 1910. She prepared the documentation necessary for its recognition as a National Historic Landmark in 1977. Sally enjoyed the life of an oceanographer's wife, which for her included filling her home with guests on a regular basis. Over the years the Spiesses entertained a steady flow of graduate students, scientists, and other academics as they passed through Scripps for committee meetings, seminars, and recruiting visits. The most distinguished oceanographers of the 20th century passed through the Spiess kitchen. Sally entertained simply and often. She was hostess for a gathering of students and faculty just a few days before her death. A memorial service will be held Oct. 5 at 2 p.m. at the La Jolla Congregational Church. A service also may be held at Scripps at a later date. Donations may be made in Sally's honor to the Torrey Pines Association or your favorite charity. (Scripps Communications, x43624). *The Scripps Log* October 4 - 11, 2002 vol. 39 no. 39

Stallard, Martha Ophelia (1947-2001)

Ph.D. 1974, Oceanography, Scripps Institution of Oceanography (UC San Diego)

It is with sadness that we report that Martha Stallard has passed away. She was a nationally known marine organic chemist. Martha received a Ph.D. in oceanography from Scripps in 1974, with Prof. John Faulkner. She was born in Amarillo, Texas, and received a B.S. degree in 1969 from the University of Iowa. After receiving her Ph.D. degree, Martha worked as an independent investigator with many of the members of the Scripps chemistry division. There will be an informal memorial service on Saturday, Aug. 4, at 2 p.m. at Martha's home, 4125 Cole Way in

Clairemont. All of Martha's friends and colleagues are welcome. Take 52 to Genesee to Appleton. Turn right on to Cole, then turn left on to Cole Way. (Prof. Edward Goldberg). *The Scripps Log August 3 - 10, 2001 vol. 38 no. 31*

Stapleford, Robert L. (1932-2001)

STAPLEFORD - On February 11, Bob Stapleford lost his valiant battle with leukemia. His extraordinary service to Scripps spanned more than 40 years and encompassed a variety of contributions sufficient for several full careers. He was an early and active participant in the diving program. Jim Stewart recalls diving with Bob in the 1960s to make underwater photographs of the wavelike flows around the sails on Navy submarines underway near San Diego, and also to check their hulls for limpet mines. He worked with SIO's Visibility Laboratory until 1984 in technical and engineering support of various projects. During this time he also served as a crew member on NASA astronaut training flights. He later shifted into administrative work as the business officer for the Laboratory. In 1984 he became business officer for the Nimitz Marine Facility, putting its financial and administrative affairs on a sound footing. Following "retirement" in 1991 and VERIP rehiring in 1992 he took on a series of important special projects ranging from dredging to accommodate the new R/V Roger Revelle at MarFac to managing the donated yacht *Chubasco* for eventual sale by SIO. His involvement in the diving program continued to the end; he attended a meeting of the Diving Control Board just one month before his death. We have lost a first-class diving buddy, a conscientious caring manager, a fine shipmate, and a good friend. Bob is survived by his wife Marty, his children Kileen Corkill, Kevin Stapleford, and Karen Stapleford; and three grandchildren. In lieu of flowers, the family hopes you will make donations to the Leukemia Society of America, 4715 Viewridge Avenue, San Diego, CA . Cards of condolences may be sent to Mrs. Marty Stapleford, 4535 Berwick Place, San Diego, CA 92117. There will be a memorial service at the Martin Johnson House on Thursday, February 22, at 4 p.m. *The Scripps Log February 16-23, 2001 vol. 38 no. 7*

Stevenson, Robert Everett (1921-2001)

Dr. Robert E. Stevenson, 80, of Princeville, Kauai, died in Hawaii on Aug. 12, of cancer. He was a retired oceanographer and had served as director of the branch Office of Naval Research at Scripps from 1970 to 1988. His career awards included the Meritorious Civilian Service Award from the Navy for his work with ONR. Bob was a World War II veteran of the Army Air Corps, a B-17 navigator who flew 29 missions in the European theatre, including the first over Germany and two on D-Day. During the Korean War, he worked on classified photo reconnaissance as a squadron commander, an omen of his later interest in viewing the earth from space. He received a Ph.D. degree in oceanography from USC in 1954. Working with NASA from the Gemini days of the 1960s to the present time, Stevenson served as an oceanographer-consultant to many astronauts. Dr. Paul Scully-Power, the Australian oceanographer, became the first oceanographer in space when in 1984 Bob Stevenson had to relinquish this assignment in order to care for his ailing wife. Scully-Power has written "Bob Stevenson was the Father of Space Oceanography. He instructed each and every one of them [the astronauts] in the greatest of all endeavors: looking at Mother Earth and understanding what they saw, and recording that which was new. In this sense, he is singularly responsible for one of the greatest treasure troves of knowledge that we have today of the Earth." At the time of his death, Bob was writing an instructional CD on space oceanography for astronauts jointly with Dr. Scully-Power. In 1987 Bob was appointed

Secretary General of the International Association for the Physical Sciences of the Oceans (IAPSO). During 8 years in this position, he brought oceanographers from around the world together in two major IAPSO assemblies (Vienna, 1991; Honolulu, 1995) and other smaller meetings. We who were responsible for IAPSO program planning during this period know that the lion's share of credit for the success of these meetings belongs to Bob. Bob is survived by his wife, Jeani Stevenson of Princeville, and two sons, Robert K. Stevenson of Fullerton, Calif., and Michael G. Stevenson and his wife, Mary, of Alexandria, Va.; a granddaughter, Caprice; and numerous cousins. A memorial service will be held in Hawaii on Saturday, Aug. 18. SIO Communications has a home address for Jeani Stevenson for those who would like to write. (Bob Knox, x44729; Joris Gieskes, x44257). *The Scripps Log August 17 - 24, 2001 vol. 38. No. 33*

Stover, Allan J. (1922-2005)

STOVER - Al Stover, who worked at Scripps for more than 30 years, passed away on October 20. Al worked with Carl Hubbs as a marine technician in the 1950s before being hired to supervise the diving locker in 1967, a position he kept until his retirement in the early 1980s. Jim Stewart worked alongside Al for many years and fondly remembers Al's various duties over the years as a marine tech, small boat handler, fish collector, and eventually with the diving locker. More information will be included in next week's SIO LOG. *The Scripps Log November 4 - 11, 2005 vol. 41 no. 44*

Sullivan, Brian William (1958-2006)

Ph.D. 1985, Oceanography, Scripps Institution of Oceanography (UC San Diego)

SULLIVAN - Brian William Sullivan died of cancer, Wednesday, July 12. Brian grew up in Livonia, Mich., and lived in San Diego. He earned a Ph.D. in Oceanography from SIO, later working in the biotech industry and where he was the recipient of numerous patents. Brian cycled competitively, including riding in the national trials for the Olympics. He also enjoyed golf, skiing, and snowboarding. Brian is survived by his wife, Carol; mother Barbara; and brothers and sisters-in-law Dennis and Mary Dawn, and Mark and Lin. A Celebration of Life for Brian will be held on Saturday, July 22, 3 p.m., at Bernardo Heights Country Club, 16066 Bernardo Heights Parkway, San Diego, 92128. In lieu of flowers, donations can be sent in Brian's name to Dr. Pedram Argani, Johns Hopkins Hospital, Weinburg/Room 2242, 401 Broadway, Baltimore, MD, 21231-2410. Donations to be made payable to John Hopkins University should be designated to bile duct cancer. (*San Diego Union Tribune, 7/19/06*). *The Scripps Log July 21 - 28, 2006 Volume 42 Number 29*

Swallow, Mary McKenzie (1917-2006)

Mary Swallow (July 1, 1917-January 29, 2006) was known in oceanographic circles as the editor (with Dr. Mary Sears of Woods Hole) of *Deep-Sea Research* from 1963 until her retirement in 1977 and then as Editor Emeritus. Mary graduated with First Class Honors in Geography and Geology from Kings College, University of London in 1939. She worked for the Meteorological Office during World War II preparing meteorological and oceanographic handbooks. Mary joined the newly formed UK National Institute of Oceanography in 1953 where she became its librarian. In 1958 she married Dr. John Swallow who in 1955 had developed the neutrally buoyant "Swallow" float to make the first detailed measurements of subsurface currents in the deep ocean. John Swallow retired in 1983 after a distinguished career and they moved to the West of England. With colleagues from around the world John maintained his research on the

Indian Ocean until his untimely death in 1994. (Dr. W. John Gould, Argo Project Director and Visiting Fellow, National Oceanography Centre, Southampton). *The Scripps Log February 17 - 24, 2006 vol. 42 no.7*

SWALLOW - Due to a word processing error, the obituary for Mary Swallow in the previous issue of the Log was inadvertently slightly abbreviated. Anyone who would like to read the unabbreviated version and/or another, more complete memoir of Mary's life and work written by John Gould should email Bob Knox (rknox@ucsd.edu). *The Scripps Log February 24 - March 3 2006 vol. 42 no.8*

Taylor, Isabel B.L. (1920-2004)

ISABEL TAYLOR - Isabel Taylor died on Monday, January 26, after a long illness. She had worked as a research assistant to H. W. (Bill) Menard in the 1960s, assisting him with drafting maps and data compilations for seafloor depth distribution (hypsometry) and other projects. From the early 1970s until 1993 she worked with Jacqueline Mammerickx, assimilating bathymetric data and drafting charts in the South Pacific for the "General Bathymetric Chart of the Oceans" (GEBCO). (Stuart Smith, smsmith@ucsd.edu). *The Scripps Log February 6 - February 13, 2004 vol. 42 no. 5*

Tegner, Mia Jean (1947-2001)

Ph.D. 1974, Marine Biology, Scripps Institution of Oceanography (UC San Diego)

It is with profound grief that I must tell you that Dr. Mia Tegner, research marine biologist in the MLRG, died January 7 in a scuba diving accident off Mission Beach. Needless to say, words cannot express how shocked and saddened we are by this terrible tragedy. In the short span of three weeks, we have lost another of our fine biologists, creating a great void in the fabric of SIO. Not only was Mia among our best and brightest scientists, she was also a dedicated and tireless public advocate for marine ecology and conservation issues. Our hearts and prayers go out to Mia's family, her colleagues, and her many friends. In lieu of flowers, people who wish to honor Mia can make gifts to Scripps Institution of Oceanography to support kelp forest research. ---Charlie Kennel. *The Scripps Log January 12-19, 2001 vol. 38 no. 2*

Tharp, Marie (1920-2006)

SIO's senior marine scientists, like oceanographers worldwide, are saddened to learn of the recent passing of Miss Marie Tharp, a truly renowned geomorphologist-cartographer based at Columbia's L-DEO from 1948 until the early 1980s, the very years the field of marine geology-geophysics was coming of age. Marie, who knew our expeditioners' findings well in the 1950s, 1960s, and 1970s, was a principal innovator in portraying and incisively interpreting the topography of the world's ocean floors, from perceptive comments in cutting-edge research discussions to developing the spectacular and convincing "physiographic diagrams" that she developed to substitute for seafloor contour charts then being restricted from open scientific publication. Airbrushed versions of her products in the National Geographic Magazine became world standards for decades. Her name is also linked to the recognition of the near-customary central rift valley in oceanic median ridges, an observation that for a time greatly heartened earth expansionists, and remains a tenet in seafloor spreading. For three decades, Marie Tharp was the tireless colleague, advisor - social moderator, intensely loyal influence on Lamont's Bruce Heezen; as a team their names remain joined throughout the profession. The names of each have

been given to huge linear chasms in the far South Pacific seafloor by the cognizant international authority. Bruce died at sea in the North Atlantic in 1977; his collaborator retired from Columbia in the early 1980s. Since then, Marie, with mentored students and lay volunteers, has preserved, archived, and transmitted to the Library of Congress the extensive materials their very active collaboration had produced. Since retirement she has modestly and publicly accepted the well-earned honors and recognition her own work - as a wise and pioneering woman excelling in a then-male arena - had justified. Through it all, now a half century, I remember Marie as a gentle soul, one human I am privileged to have known. (Bob Fisher). *The Scripps Log* September 1 - 8, 2006 Volume 42 Number 35

Tsuchiya, Mizuki (1929-2010)

MIZUKI TSUCHIYA - Mizuki Tsuchiya died on December 24, 2010. He was a research oceanographer at Scripps Institution of Oceanography from 1969 until 2009. He took his doctorate at the University of Tokyo in 1962. He was an instructor at the Japan Meteorological Agency until 1964 and a research associate at Johns Hopkins University from 1964 to 1967. He came to Scripps in 1969 where he worked until his retirement in 1996 and was returned to active duty until 2009. He wrote many papers on the circulation of the oceans, particularly on the Pacific Ocean—the equatorial currents and countercurrents and the California Current—and several papers on the Atlantic Ocean. He participated in planning and carrying out numerous expeditions to the tropical Pacific, culminating in the EPOCS and WEPOCS expeditions in the 1980s. In the late 1980s and early 1990s, he went to sea on long north-south sections in the Atlantic and Pacific Oceans. His work on the tropical Pacific circulation was especially seminal; he discovered major eastward currents beneath the surface, which are sometimes called the North and South Subsurface Countercurrents, but which are referred to by many as the “Tsuchiya jets” in honor of their discovery. Early in his career, Tsuchiya was also a theoretical oceanographer, and produced the first derivations of nearly-geostrophic flow close to the equator. In 1996 he was honored with a special session at the American Geophysical Union’s fall meeting. He was deeply devoted to his field of study and was a diligent, helpful (and tactful) referee for many, and the editors valued his competence and thoroughness. Those of us who knew him had not only a high respect for his meticulous work, but a high regard for his quiet but friendly manner. He was an excellent colleague. He is survived by his wife and two daughters. In lieu of flowers, the Tsuchiya family asks that gifts be made in Mizuki’s memory to support postdocs and graduate students at Scripps Institution of Oceanography. Mizuki was passionate about research done at Scripps so gifts to support Scripps can be made to honor him. Checks should be made payable to “UC San Diego Foundation” and sent to: Scripps Institution of Oceanography, UCSD, Attn: Development, 9500 Gilman Drive-MC 0210, La Jolla, CA 92093-0210, or online at: http://supportscripps.ucsd.edu/Give_Now/. (Joseph L. Reid and Lynne D. Talley). *The Scripps Log* January 21 - January 28, 2011 vol. 47 no. 3

Utter, Dorcas (1924-2007)

DORCAS UTTER - Dorcas Utter died Wed., Nov. 28 after a brief illness. She worked at Scripps Oceanography for 28 years and retired in 1983. Dorcas essentially ran Marine Facilities single-handedly in an environment of mostly men. Her efficiency in that busy office was astonishing. Dorcas was born in Richmondville, New York, in 1924, and moved to Southern California in 1955. She is survived by her son Bill Utter and daughter-in-law Deborah, of Roseburg, Oregon. Between working hours and during her retirement, Dorcas volunteered for outdoor groups,

especially those providing programs for the visually impaired. The first of these was C4U at the San Diego Natural History Museum where she created walking tours for the visually impaired. Dorcas also volunteered at Quail Botanical Gardens in Encinitas and at the Water Conservation Garden at Cuyamaca College. In memory of Dorcas, donations are suggested to the Water Conservation Garden, where a restricted fund is being established for the redesign and rededication of the Dorcas Utter Sensory Garden. Donations are tax-deductible. For more information, visit <http://thegarden.org/donate.html>. (Betty Shor, bshor@sio.ucsd.edu, 858-453-0334). *The Scripps Log* December 7 - December 14, 2007 vol. 43 no. 49

Vacquier, Victor, Sr. (1907-2009)

VICTOR VACQUIER - Victor Vacquier, Sr., a distinguished scientist and emeritus professor of geophysics at Scripps Institution of Oceanography, passed away on Jan. 11, in La Jolla at age 101. He was born October 1907 in St. Petersburg, Russia, escaping in the winter of 1920 with his family across the frozen Gulf of Finland to Helsinki in a one-horse sleigh. He stayed in France for three years before moving to Madison, Wisconsin in 1923. He received both his B.S. and M.S. degrees from the University of Wisconsin. Vic's first job was with Gulf Research where he invented the fluxgate magnetometer. This instrument was placed in aircraft and became the basis of aeromagnetic prospecting for oil. It was used for the airborne detection of submarines during World War II and has been credited with closing the Straits of Gibraltar to German submarines. In 1942, as part of the war effort, he joined the Airborne Instruments Laboratory of Columbia University (located at Sperry Gyroscope Company) to oversee the development of a magnetic airborne detector. He left Columbia University in 1944 to join the Sperry Gyroscope Company. While there, he made significant innovations that dramatically increased the usefulness of gyroscopes. From 1953 to 1957 he worked as the principal geophysicist and professor of geophysics at the New Mexico Institute of Mining and Technology. Vic joined the Marine Physical Laboratory at Scripps in 1957. From his earliest seagoing days at Scripps, Vic was a compulsive tourist, volunteering joyous assistance, even below decks, for the opportunity to explore at different port stops. One recalls the 1960-61 MONSOON Expedition, with a midnight taxi ride into Central Java to visit Borobudur, Vic's delight as we took Argo across the crater rim of Krakatoa, into its flooded caldera to watch up close the nocturnal fireworks of Anak Krakatoa, the volcano's "daughter." As a shipmate Vic's motto was "Where else now?" During his career at Scripps he carried out extensive studies of the magnetic structure of the ocean floor and heat flow through the oceans and continents. After the end of World War II, the airborne magnetometer was adapted for shipboard scientific use and the data at sea were critical to the acceptance of the concept of seafloor spreading. Specifically, Vic discovered a 700 km offset, and later a 1,300 km displacement in the lineated marine magnetic anomalies across two fracture zones in the eastern Pacific. The ability to explain this startling offset was a key factor in the prompt acceptance of the theory of plate tectonics. Vic demonstrated a strong relation between high heat flow and the crest of the mid-ocean ridges and the existence of very uniform heat flow in the deep ocean floor near the trenches of the western Pacific. These data strongly supported the concept of seafloor spreading and also led directly to the widely-accepted thermal models of the oceanic lithosphere that came from the quantitative development of the theory of plate tectonics. Over the years, Vic received several honors for his significant contributions to scientific research. Vic is survived by his wife Mihoko Vacquier of La Jolla, Calif.; his son Victor D. Vacquier, a Scripps professor; daughter-in-law Judith Vacquier of La Jolla, Calif.; four grandchildren and four great grandchildren. See future issues of the *Scripps Log* for memorial

service information. (Bob Fisher, x43597 and John Sclater, jsclater@ucsd.edu, x43051). *The Scripps Log January 16 - January 23, 2009 vol. 45 no. 2*

Van Andel, Tjeerd (Jerry) (1923-2010)

TJEERD VAN ANDEL - The death of Tjeerd Van Andel was announced by the University of Cambridge this week; he died on Sept. 17, 2010, at the age of 87. "Jerry" was at Scripps from 1956 to 1968 in earth sciences and took an interest in a wide range of subjects. After various other positions, he became the Honorary Professor of Earth History, Quaternary Science, and Geo-Archaeology in Earth Sciences at Cambridge, where he specialized in studies of ancient human history in Europe. He was considered "extremely innovative" with "a prodigious enthusiasm and vitality." (Betty Shor, betty.shor@gmail.com). *The Scripps Log October 1 - October 8, 2010 vol. 46 no. 39*

VanAtta, Charles William (Chuck) (1934-2001)

VAN ATTA - Our friend and colleague Chuck Van Atta died on Sunday, February 11, after suffering a fatal cardiac arrest while skiing with friends at Mount San Jacinto. Chuck, who had been at UCSD since the 1960s, held a joint appointment between the former AMES department and SIO until his retirement in 1994. He was known internationally for his contributions to our understanding of turbulence, and contributed greatly to UCSD's reputation in fluid mechanics and related areas of physical oceanography. His collegiality and engaging easy-going approach to those around him will be sorely missed. We extend our condolences to his wife Ann, daughter Pam; son-in-law Bruce; and his two grandchildren. The MAE department will be arranging a memorial service in the near future. The family requests no flowers, but welcomes your cards and letters, which may be sent to Mrs. Ann Van Atta, 5569 Stressman, San Diego, CA 92122. *The Scripps Log February 16-23, 2001 vol. 38 no. 7*

Volcani, Benjamin Elazari (1915-1999)

Benjamin E. Volcani, professor emeritus of marine biology at Scripps, passed away February 6 at age 84 from complications of kidney failure. Ben joined the Scripps faculty in 1959 and maintained a well-funded, active research program until, in 1996, ill health forced him to stop coming to the lab. Ben had a passion for science, research, for people, and the world. He trained many Ph.D. students and had numerous postdoctoral scholars and sabbatical visitors. Ben discovered the halophilic archea (salt-loving bacteria) and showed that silicon is important to many biochemical pathways in marine diatoms. His numerous publications spanned the entire fields of cell biology, biochemistry, and molecular biology, from beautiful electron micrographs of diatom shells to the isolation of silicon transporting genes. Ben loved the atmosphere of Scripps and for decades ate lunch on the lawn while talking to colleagues from all curricular groups. He had an unsurpassed passion for scientific journals and read essentially every biological and chemical journal received by our library. He would come to the library early Saturday morning and remain until closing time reading even those journals completely unrelated to his research focus. He would put a small Z on the back of each journal he finished. There were many Saturdays when Ben could be found eating lunch out on the deck of Hubbs

Hall talking to families who came to ask directions to the Aquarium. He would engage these visitors with his charm and warmth for long durations, especially if they had children. Ben was a fixture at Scripps, his long white hair blowing in the sea breeze as he walked around Scripps. He is survived by his wife, Toni; a son, Yanon; and daughter-in-law Rory Devine, and grandson, Doron, all of whom live in La Jolla. We will miss his warm conversation and his sparkling eyes. (Vic Vacquier, Mark Hildebrand, MBRD). *The Scripps Log February 12 - 19, 1999 vol. 36 no. 6*

Volcani, Eleanor Susan Brownell Anthony Solomons (Toni) (1911-2006)

Eleanor Susan B. Anthony Solomons was born in Oakland on Feb. 15, 1911. At Scripps we knew her as Toni Volcani. She died April 6, 2006 at Cloisters of La Jolla. A long account of Toni was in the *San Diego Union-Tribune* that noted, "Mrs. Volcani's legacy is tied to the men in her life: her father, Theodore Solomons, who helped discover and define the John Muir Trail; her onetime boss, author John Steinbeck; and her second husband, renowned microbiologist Ben Volcani." Toni [then Jackson] collected along Vancouver Island with Ed Ricketts in 1945, and helped him store his specimens. She then typed the entire manuscript of *The Sea of Cortez* for Steinbeck and Ricketts. This time period is described in *Beyond the Outer Shores* by Eric Enno Tamm (2004). Later, Toni met Ben Volcani at Hopkins Marine Station, and they married. They went to Volcani's native land Palestine, in 1948, just as the Arab-Israel war began. Ben Volcani joined SIO in 1959 (died 1999). In this location Toni did considerable writing and was involved with the Western Behavioral Science Institute. (Betty Shor). *The Scripps Log April 21- 28, 2006 vol. 42 no. 16*

Von Damm, Karen L. (1955-2008)

KAREN VON DAMM - A message to the UNOLS Community from Dr. Jonathan Pennock, University of New Hampshire: I am deeply saddened to have to inform you of the passing of a good friend and colleague, Dr. Karen Von Damm, last Friday. Karen, a Professor of Geochemistry in the Department of Earth Sciences and the Complex Systems Research Center at the University of New Hampshire, was a world-renowned geoscientist. Her research on hydrothermal vent systems contributed significantly to our basic understanding of the chemistry of the ocean. She will be sorely missed by the many friends, colleagues, and students who knew her. A moving tribute to Karen's life by Rachel Haymon can be found on the UNOLS web page at http://www.unols.org/committees/dessc/Karen_VonDamm.html (Jonathan Pennock, jonathan.pennock@unh.edu, 603-862-2921). *The Scripps Log August 22 - August 29, 2008 vol. 44 no. 34*

Walker, Boyd Wallace (1917-2001)

Ph.D. 1949, Zoology, Scripps Institution of Oceanography (UC Los Angeles)

I am sorry to have to report that Boyd W. Walker, who was born May 26, 1917 died on September 19th. Boyd received his Ph.D., from Scripps in 1949, as a student of Carl Hubbs. Boyd's dissertation topic was a study of the habits of the beach-spawning grunion, and much of the research was done at Scripps beach. Marking and counting grunion understandably involved the aid of a number of faculty and students. Those participating were given certificates giving

them, among others, the privilege of "spawning on the beach at high tide." Boyd's work remains the definitive study of the habits of this fish that fascinates visitors and inhabitants alike. After graduation he joined the faculty of the Zoology Department at UCLA, where he taught until his retirement in 1980. Shortly after coming to UCLA he began his study of the fishes of the Gulf of California. At that time, little collecting had been done in the Pacific waters of Mexico since the turn of the last century. Boyd and his students built a large and important collection of Eastern Pacific fishes. Much of that collection has been transferred to the Natural History Museum of Los Angeles County. In the 1950s he headed the Salton Sea Project with funding from the California Department of Fish and Game. The Project resulted in the benchmark Ecology of the Salton Sea, published as a Fish Bulletin by the Department. Boyd was also a noted teacher. His rigorous ichthyology course was well attended, and he supervised some 20 doctoral students, so his influence is still being felt in the field. I was one of those students, and like the others, his friend. (Richard Rosenblatt). *The Scripps Log* October 12 - 19, 2001 vol. 38 no. 41

Walker, Theodore John (Ted) (1915-2003)

WALKER - Theodore John Walker, considered one of the leading authorities on the California gray whale, passed away Feb. 28 in Seattle. A Scripps oceanographer from 1948 to 1969, Dr. Walker was a behaviorist who studied fish and their orientation to their environment. He conducted extensive studies on whales and kept photographic and written coverage of the annual migration of the gray whales to Baja California. He also studied the sensory orientation of fish. Born in Great Falls, Montana, Dr. Walker earned his B.A. from the University of Montana in 1938, an M.S. from the University of Oklahoma in 1940, and a Ph.D. from the University of Wisconsin in 1948. *The Scripps Log* March 21 - March 28, 2003 no. 40 vol. 11

Walton, William Ralph (1923-2001)

M.S. 1952, *Oceanography*, Scripps Institution of Oceanography (UC Los Angeles)

Ph.D. 1954, *Oceanography*, Scripps Institution of Oceanography (UC Los Angeles)

William Ralph Walton, born April 1923, graduate student at SIO from 1950 to 1954 (Ph.D.), died in Valparaiso, Indiana, on April 23. The immediate cause was cardio pulmonary arrest, though Bill had been in failing health for several years. A pilot in the Army Air Corps during World War II, Bill returned to finish undergraduate courses at Amherst College where he graduated with an Honors A.B. in geology in 1949. There he had been associated with Fred B. Phleger, a premier academic foraminiferologist (who transplanted his research group to SIO in 1949); this close friendship and joint interest in living forams lasted throughout the lives of both men. Bill's SIO/UCLA thesis (1954) under Phleger, was titled "The Ecology of Living Foraminifera, Todo Santos Bay, Baja California." His field work employed *E.W. Scripps*, crewed in part by fellow graduate students. Immediately upon graduation Bill Walton joined Gulf Research and Development in Pittsburgh as a paleoecologist. Moving to Amoco Oil in 1957 he rose from paleoecologist to research director for geology and geochemistry, chief geologist and exploration manager for Latin America and the far east, retiring from that post in 1981. Among his several industry-related honors were the AAPG President's Award and also AAPG Distinguished Lecturer (1972-73). From 1981 to 1985, Bill conducted independent research on foram ecology in his personal laboratory in Barnstable, Massachusetts, very near Woods Hole

where he long had had similarly interested associates. Throughout that period, and later, he returned to SIO on extended visits to conduct studies with Fred Phleger and Wolf Berger. Returning full time to academia in September 1985, Bill joined Northwestern University in Evanston, Illinois, as adjunct professor of geological sciences. There he taught a Senior Linkage Seminar on "The Petroleum Industry: Its Success, Its Problems and Its Future" and continued his studies of foram ecology and the comparison of modern salinity-dependent phenotypes with those of the geological record. Progressing illness curtailed those activities in recent years. Bill Walton is survived by his wife of 50 years, Ann, a consummate harpsichordist, and two daughters, Julie Walton and Jan Rubsam. Bill proudly bore a title certainly characteristic of SIO students of his era, Oceanographer. (Bob Fisher, SIO). *The Scripps Log* May 4 - May 11, 2001 vol. 38 no. 18

White, Fred Newton (1927-2006)

"His life was gentle, and the elements so mixed in him that Nature might stand up and say to all the world, 'This was a Man'." Fred N. White (79) died peacefully at home, October 11, 2006, from Alzheimer's Disease. Fred was the dearly beloved husband of Rosanne Son White, and the only child of Fred and Effie Frances White. Fred is also survived by his former wife, Maxine E. White. Born in Yelgar, Allen Parish, Louisiana, raised in Fort Worth, Fred spent much of his youth fishing with his father. Fred learned to love the creatures of the earth and resolved early in life that they would be the focus of his life's work. At Scripps, Fred served as Director of the Physiological Research Laboratory with a cross appointment as Professor of Medicine at UC San Diego. Fred was internationally known for his scientific studies. His greatest contributions were his discoveries relating to acid-base regulation of body fluids during hypothermia. These discoveries altered some accepted procedures of anesthesiologists and have saved many human lives. Fred's scientific contributions have literally left this world a better place. Fred was awarded numerous honors and prizes in his lifetime, including election as a Fellow of the American Association for the Advancement of Science and the prestigious Alexander von Humboldt Preis (Senior Scientist Prize) by the Republic of West Germany. Fred retained connections with colleagues and friends from all phases of his life. He is remembered for the caring warmth of his friendship, his humor and sense of fun, his devilish pixy wit and perennial smile, his long and interesting conversations. Colleagues describe his sage council, extraordinary ingenuity, incisive intellect, inspired ideas, and meticulous investigations. Colleagues also describe his illuminating contributions in biology and medicine, his important contributions to physiological ecology and medical physiology. His work on circulation and gas exchange dynamics in reptiles will rank as classic studies in comparative physiology. In lieu of flowers, the family suggests donations to the charity of your choice. Funeral services will be held at Fort Sam Houston National Cemetery (Texas) on Monday, October 16. Fred will be buried with military honors. (Rosanne White). *The Scripps Log* October 13 - October 21, 2006 Volume 42 Number 41

Whitney, William (1922-2006)

William Whitney, 84, died at home Sunday, Nov. 19, 2006, of chronic obstructive pulmonary disease. Born June 27, 1922, in Iowa City, Iowa, he lived in Poway for 41 years. He served in the U.S. Navy during World War II in the Pacific Theater. He received a bachelor's degree in 1949 from San Diego State University and retired as a senior engineer at UC San Diego where he worked at the Scripps Institution of Oceanography's Marine Physical Laboratory (MPL). In 1983 he received recognition from the Chancellor for his numerous contributions to MPL's research programs. He is survived by his wife of 56 years, Valerie L. Whitney of Poway; daughters Jana C. Whitney of Pauma Valley and Karen W. Freriks of Cottonwood, Ariz.; sisters Mary Jane Will of El Cajon and Helen Fritz of Grants Pass, Ore.; and three grandchildren. A private inurnment was planned at Fort Rosecrans National Cemetery in San Diego. The family suggests donations to Elizabeth Hospice, 150 W. Crest St., Escondido, CA 92025. *The Scripps Log December 1 - 8, 2006 Volume 42 Number 48*

Whorf, Timothy Perkins (1947-2005)

M.S. 1970, Earth Sciences, Scripps Institution of Oceanography (UC San Diego)

I am very sorry to report that Scripps researcher Timothy P. Whorf passed away suddenly on September 19. Tim was born in 1947 in Hartford, CT, and grew up in Ojai, CA. Tim received his B.A. from Pomona College in 1968 and his M.S. From Scripps with Jonathan Berger in 1974. His study of earthquakes at IGPP initiated a career-long interest in cycles and time-series in nature. In 1978 he came to work for the Carbon Dioxide Research Group (CDRG), headed by Charles Keeling. Over the years he worked closely with Professor Keeling on the atmospheric CO2 record and other studies and co-authored numerous articles and reports. One of Tim's primary responsibilities was the analysis and interpretation of atmospheric CO2 data collected at Mauna Loa Observatory and the network of CDRG sampling stations. Tim's rendering of the Mauna Loa CO2 record, also known as the "Keeling Curve," has become the often-reproduced and most widely known symbol of mankind's impact on global biogeochemistry. Memorial plans at SIO are pending. (Peter Guenther). *The Scripps Log September 23 - 30, 2005 vol. 42 no. 38*

Williams, Brhuna Angela (1935-2006)

WILLIAMS - Brhuna Williams, 70, died of natural causes on Monday, July 24, at her home. Brhuna worked for DSDP (Deep Sea Drilling Project) from 09/02/68 to 11/15/70. She then transferred over to ORD (Oceanographic Research Division) on 04/16/70. She first retired on 10/31/93, came back for a while, then officially retired on 07/07/95. Brhuna provided administrative support for ORD's unit then known as PACODF (Physical and Chemical Oceanographic Data Facility), which eventually was shortened to ODF. ORD eventually merged with the Marine Technical Support Group and became Shipboard Technical Support in March 1985. Brhuna worked under the management of David Wirth, with Arnold Bainbridge as her direct supervisor until his death. She was born in Pacentto, Italy, but lived in Leucadia for 37 years. After retiring from SIO, she became a holistic health practicing teacher. She was a member of the Church of Self Realization Fellowship in Encinitas. *The Scripps Log August 11 - 18, 2006 Volume 42 Number 32*

Williams, James G. III (1928-2007)

Captain Jim Williams, SIO Marine Superintendent from May 1982 to December 1992, passed away Wednesday, February 14, 2007 from complications of metastatic prostate cancer. He was 79. Jim started his life at sea in the U.S. Merchant Marine during World War II as an Able Seaman and supported operations by providing supplies to the fleet and troops in the Pacific campaigns. After the war he attended California Maritime Academy and earned his Third Mate license upon graduation in 1952. Following commissioning in the U.S. Navy, he served for almost 30 years rising to the rank of Captain. He was qualified as a Navy Diving Officer. His varied sea and shore assignments included service as Commanding Officer of a Landing Ship Tank (LST), a Guided Missile frigate (FFG) and U.S. Naval Station, Subic Bay, Philippines, the major support base for the U.S. Seventh Fleet in the Western Pacific Ocean. At Scripps his exemplary leadership, his constant focus on safe, effective support of seagoing science, his dedication to the merit-based advancement and welfare of all who worked under him, and his genial daily embodiment of the best qualities of "an officer and a gentleman" raised and then sustained the morale, achievements and reputation of our seagoing enterprise. On his watch SIO obtained R/V *Robert G. Sproul*, saw through the difficult but successful midlife stretch and refit of R/V *Melville*, and won the national competition for assignment of AGOR 24 (R/V *Roger Revelle*), replacing R/V *Thomas Washington* (AGOR 10). *Washington* was transferred from the U.S. to the Chilean navy in 1992, in sufficiently good condition after 27 years of SIO service that the ship remains in Chilean service today. The standard of excellence that Capt. Williams set for the Marine Facility was essential to these accomplishments and others, and endures today. Jim is survived by his wife Betty, by sons Christopher Williams and James Williams IV, by daughters Wendy Williams and Polly Coleman, and by two grandchildren. There will be no services. Plans to commit his ashes to the deep from a SIO ship are in progress. *The Scripps Log*, February 23 - March 2, 2007 vol. 43 no. 8

Williams, Robert T. (1937-2009)

BOB WILLIAMS - Bob Williams, retired Scripps Oceanography technician and engineer extraordinaire, passed away suddenly while on a family recreational trip in Canada. Bob first joined Scripps as a graduate student in the late 1960s, and soon became Arnold Bainbridge's right hand in support of the GEOSECS program (principally early 1970s). Bob carried on after Bainbridge's death, leading what is now the Scripps Oceanographic Data Facility through developments which furthered its high standing in the international oceanographic community. Bob was the mentor for two generations of oceanographic technicians, friend and associate of scientists and technicians worldwide, and respected by all who worked and sailed with him. Bob's helpful, cheerful, and forward thinking nature will be greatly missed. We will pass on more information when it becomes available. (Jim Swift, jswift@ucsd.edu, x43387 and Woody Sutherland, wosutherland@ucsd.edu, x44425) . *The Scripps Log* October 9 - October 16, 2009 vol. 45 no. 40

Wisner, Robert Lester (1912-2005)

Longtime Scripps researcher Bob Wisner died on July 30 in La Mesa after a stroke. He was born on December 24, 1912. After military service in World War II, he received an AB from San

Diego State College in 1947. He came to SIO in 1951 as a graduate student of Carl Hubbs, but worked at the institution for Francis Shepard. During the early 1950s he conducted studies on marlin, later working on lampreys, hagfishes, and lanternfish. After Hubbs's death, Bob worked in the Marine Vertebrate Division/Marine Biological Research Division until his retirement. He participated in many major Scripps expeditions--including Shellback (1952), TransPac (1953), Vermillion Sea (1959), Monsoon (1960), Piquero (1968), and SouthTow (1972)---and on cruises of the Marine Vertebrate Division and CalCOFI. Bob collected many specimens for the Scripps Fish Collection and wrote up procedures for the collection of specimens, data capture, and curatorial policies for the collection in the early 1950s. He developed expertise in the use of the Issacs Kidd Midwater Trawl and nets and collection instruments, and was often consulted by other scientists and institutions on their use. He was an avid sports fisherman and served as coach of the UCSD Intercollegiate Pacific Coast Fishing Tournament. Bob was very involved in the San Diego Flyfishing Club and the American Cetacean Society - San Diego Chapter. Wisner's wife, Fern, predeceased him. A memorial service will be held Wednesday, September 28, 2005, at the Martin Johnson House. (Sean Anderson, andersons607@yahoo.com). *The Scripps Log August 19 - August 26, 2005 vol. 42 no. 32*

Wooster, Warren Scriver (1921-2008)

Ph.D. 1953, Oceanography, Scripps Institution of Oceanography (UC Los Angeles)

WARREN S. WOOSTER - International science leader and former Scripps Institution of Oceanography Professor Warren S. Wooster died on Oct. 29, 2008, in Seattle, Wash. He was 87. A chemical and physical oceanographer who earned his doctoral degree from Scripps in 1953, Wooster spent decades fostering collaborative partnerships in oceanography across national and international borders. He published more than 50 papers on oceanography and more than 40 on marine affairs. After earning his Ph.D., Wooster participated in the early stages of the California Cooperative Oceanic Fisheries Investigations (CalCOFI). His Scripps leadership included direction of expeditions such as the Transpac Expedition to Japan in 1953 and Step-1 to South America in 1960. He was chairman of the Scripps Graduate Department from 1967 to 1969. He left Scripps to become the director of the University of Miami's Rosenstiel School of Marine and Atmospheric Science. From 1976 to 1991 he was a professor of marine studies and fisheries at the School of Marine Affairs of the University of Washington, where he retired as an emeritus professor. Wooster is survived by Polly, his wife of 60 years, and their three children, Sue, Dana, and Dan, seven grandchildren and one great grandchild. A memorial service has been scheduled for Nov. 16 at the University of Washington Club on the University of Washington campus. (Scripps Communications, scrippsnews@ucsd.edu, x43624). *The Scripps Log November 7 - November 14, 2008 vol. 44 no. 45*

York, Herbert Frank (1921-2009)

HERB YORK - UC San Diego's founding Chancellor, Herb York, passed away May 19 at the age of 87. Herb served as the first chancellor of the university from 1961-1964, and also stepped in as acting chancellor from 1970-1972. "Herb became a close new friend of mine," said Scripps Director Tony Haymet. "He reached out to me when I was a new director at Scripps and I always treasured his advice." Walter Munk was chair of the UCSD faculty in 1961 and recalls the initial strain that was felt when Herb was appointed chancellor over then-Scripps Director Roger Revelle. "It is a tribute to two great men that Herb and Roger became good friends with much respect for each other," Walter said. "Herb was a good friend, always willing to help, and always

full of humor. I will miss him." (Scripps Communications Office, scrippsnews@ucsd.edu, x43624) . *The Scripps Log* May 22-May 29, 2009 vol. 45 no. 20