

Accession No.:97-21

PROCESSING RECORD
SCRIPPS INSTITUTION OF OCEANOGRAPHY ARCHIVES

Michael Neushul, 1933-1993

Michael Neushul Papers, 1905- 1993 [bulk 1954-1993]

Physical Description: 146 mss; 5 large mss; 7 oversize boxes; 1 shoe box; 5 small shoeboxes

Description: The papers of algologist Michael Neushul largely document his academic career and professional life. The collection includes biographical files, correspondence, subject files, teaching files, manuscripts of books and other publications, photographs and other illustrations, videotapes and films, records of Neushul's company, Neushul Mariculture, Inc, reprint files, data files, objects and specimens. Biographical files include Neushul's curriculum vitae, student notes and other files from UCLA and the Scripps Institution of Oceanography, and Neushul's academic record. Correspondence consists mainly of professional correspondence, but the series does include a few family letters. Subject files include files documenting people, kelp research, microscopy, and research projects. The subject files series includes a notebook, correspondence and other material documenting Neushul's experiences as botanist on the Argentine Antarctic Expedition of 1957-1958. Teaching files include syllabi, outlines of lectures, and student papers for courses taught by Michael Neushul at the University of California, Santa Barbara, the University of Washington and other institutions. Manuscripts of books and other publications include research notes, typescripts, correspondence, illustrations and other material documenting Neushul's publications including textbooks on botany and biology. The photographs include photographs, charts, slides, lantern slides, original negatives, line drawings, annotated maps and other illustrative material. Most of this material documents algae. The collection includes a series of company records generated by Neushul Mariculture, Inc. Of Goleta, California. This series includes project files, fiscal files, personnel files and other material documenting the work of the company. The reprint files consist of manuscripts and published articles written by scientists other than Michael Neushul. The collection includes data files largely Neushul 97-21 (MC38) documenting algae. The collection includes a small quantity of objects including microscope slides and algae preserved in paraffin. The collection is particularly rich in material documenting Neushul's research in marine microalgae and mariculture. The collection includes material documenting Neushul's interactions with his colleagues, especially marine botanists from China. The collection includes several small notebooks, representing classes on algae offered at the University of Chicago at the turn of the century.

Biography: Michael Neushul Jr. was born in Shanghai, China December 27, 1933. He was educated at the University of California, Los Angeles (B.A. 1955, Ph.D., botany, 1959). Research for his doctoral dissertation was conducted at the Scripps Institution of Oceanography which was administratively under UCLA at that time. He served as assistant botanist at UCLA 1955-1956, 1958-1959 and as a research biologist at the Scripps Institution of Oceanography 1956-1958. After an NSF fellowship year at the University of London, he was a member the faculty of the University of Washington from 1960-1973. He was a member of the faculty of the University of California, Santa Barbara from 1973 until his death. He served as botanist on the Argentine Antarctic Expedition during the IGY year, 1957-1958 and participated in many expeditions of the Scripps Institution of Oceanography. In 1969-70, Neushul had a visiting fellowship at the Federal Institute of Technology in Zurich. He was a member of many scholarly societies and authored books and articles on marine algology. He died in Goleta, California on February 18, 1993.

Algae Antarctic Ocean; Marine algae; Macrocyctis; Neushul Mariculture, Inc.; Argentine Antarctic Expedition 1957-1958
SIO MC# 38

Box	Folder Title
	<p style="text-align: center;">MICHAEL NEUSHUL (1933 - 1993) Papers, 1905-1993</p> <p style="text-align: center;">Accession Number 97-21 [MC38]</p>
Box	Folder Title
1	<p>Lab Manual, 1983</p> <p><i>Teaching Botany: An Instructor's Guide</i> (Hamilton Publishing Company, Santa Barbara), n.d.</p> <p>Marine Biology 25 [Course Schedule], Winter 1993</p> <p>Adebio-Biotechnologies marines, Premier Annuaire, USF, 1990-1991</p> <p>Biomedical & Biotechnology</p> <p>Agriculture & Biotechnology, High-tech Fish Production, 1987</p> <p>“Marine Pharmacology: Eicosanoids and Biomineralization in Algae and Biomineralization in Algae and Bone,” [Proposal, 1991]</p> <p>Journals and Daily Logs</p>
2	Journal 1989
	Journal 1990
3	Journal 1991
	Journal 1992
	Journal 1993
	Botany 170 1992
	Correspondence, 1992
4	Correspondence, 1992
	Correspondence, 1992

Box	Folder Title
4	Correspondence, 1993
	Correspondence, 1989-1990
	Personal File, News Clipping, Pictures, 1993
	Neushul Vita
	Reprints I
5	Reprints II
	Reprints III
	Neushul, Michael and Charles D. Amsler, Jr., "The Effects of Light on Growth, Reproduction, and Dormancy of Antarctic Macroalgae," NSF Proposal, 1989
	Reprints IV
	Neushul Mariculture, Inc.
	Santa Barbara Oil Pollution, 1969
	"Macroalgal farming in the sea: water motion and nitrate uptake," 1992
	Amsler, Charles D., Daniel C. Reed, and Michael Neushul, "The Microclimate Inhabited by Macroalgal Propagules," 1991
	"The Evolutionary Implications of Kelp Hybridization," paper presented as plenary lecture at Algal Symposium, Woods Hole, 1986
	International Phycotalk Symposium, Varanasi, India, 1987
	Western Society of Naturalists, 1986
6	Stekoll, Michael S. and Michael Neushul, "Stimulation of Gametogenesis by Chelated Iron in the Kelp <i>Macrocystis integrifolia</i> (Phaeophyta)," n.d.
	"The Dispersal of Marine Plants for Aquacultural Purposes," n.d.
	Correspondence

Box	Folder Title
6	China Trip Report, James McVey, 1991
	Hyland, Jeffrey, "A Time-Series Survey of the Marine Environment in the Vicinity of Arthur Harbor, Antarctica, Following the Grounding of the <i>Bahia Paraiso</i> ," NSF Proposal , 1989
	Correspondence
	Physiology, Botany, 1960
	Chemistry 8, 1954
	Botany 6, 1951 – 1955
	Physics, n.d.
7	Botany 1, n.d.
	Chemistry 1, 1956
	Botany 140, 1953
	Correspondence
	Antarctica, 1957 – 1989
	Argentine Antarctic Expedition, 1957 - 1958
	Newspaper Clippings and Publicity, 1978 - 1983
	Patents, Neushul Mariculture, Inc., 1987 – 1988
8	University of California, <i>Sea Grant Proposal 1973 - 1974, Revised. Volume 1: Project Summaries</i> (Institute of Marine Resources, La Jolla, 1973).
	Cubit, J., "External and Internal Pressure and <i>Egregia</i> Vesicles, n.d.
	Aquatic Habitat Enhancement, Conference, Long Beach, 1991
	Correspondence 1979-1989
	Microscopy/Photography, 1987

Box	Folder Title
8	Correspondence 1991
	Beach Walks/Tiptip, 1986
	Third International Phycological Congress, 1988
	UCSB Mariculture Education Grant, Correspondence, Acceptance Letters, 1979
	Materia Medica, 1991
	Design Plans n.d.
	11 th International Phycological Congress
9	Plant specimens
	Bell, Frederick W., "Economic Feasibility of Aquaculture Transfer among LDC's," Florida State University, n.d.
10	Mariculture at UCSB, n.d.
	Botany Textbook, [Royalties, 1971 - 1979]
	Botany Textbook, 1952 - 1984
	Botany Textbook [Chapters 1 and 3, 1982]
	Chapter 7, 1964 - 1965
	Botany Textbook [Outline, n.d.]
	Botany Textbook [Publishing, 1982]
	Anacapa Island Survey
	Life Histories, etc., 1971
	Neushul Photos
11	Chapter 1, n.d.
	Chapter 2, n.d. [2 folders]

Box
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Folder Title

Chapter 3, n.d.

Chapter 7, Text art and text photos, 1971

Chapter 8, n.d.

Chapter 9, n.d. [2 folders]

Chapter 10, n.d. [2 folders]

Chapter 11, n.d. [2 folders]

Chapter 12, n.d. [2 folders]

Chapter 13, n.d.

Chapter 14, n.d.

Chapter 15, n.d.

Chapter 16, n.d.

Chapter 17, n.d.

Chapter 18, n.d.

Chapter 19, n.d. [2 folders]

Chapter 20, n.d.

Chapter 21, n.d. [2 folders]

Misc n.d.

Freeze Fracture and EM [Electron Microscopy], n.d.

Freeze-Etch, Hossien and Neushul

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Freeze-Etch, Hossien and Neushul

Freeze-Etch, Hossien and Neushul

Hossein and Neushul

Box
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Folder Title

Botany 170, 1979

Exams and Illustrations, 1976

Dr. Michael Neushul, C.V.

Hydronomic Studies, W.N. Wheeler, 1976 - 1977 [2 folders]

Work to Do, 1991

Delegates, 1991

Aquarium, 1991

Bus Rental

Caterers, 1991

Correspondence with Clarion Hotel, 1991

Correspondence, 1991

Cruise, 1991

Participants, 1991

Package, 1991

Cost Letter

French List, 1991

French-American Literature, 1991

Pro-cite, n.d.

13

Electronic Mail, 1990

Budget, 1991

Reports, 1990

Model (Hawaii), 1990

Box	Folder Title
13	Proposals, 1991
	Other, 1989
	Jellyfish Act - Drift Seaweed Ecology, 1968
	France
	EPRI - Japan, 1990
	Japan and China, 1981
14	AIDS Africa, 1984
	Senegal, 1983
	England, Travel, People Seen, 1974
	Seaweed harvesting, 1983
	Visa and American Express Records [Corporate Card, 1990]
	Algal Toxins
	Atlantic Research Laboratory (ARL), 1989
	Microencapsulation, 1990
	McClelland Consultants, 1990
	Food Legislation - Gras Report/Seaweed Utilization - <i>Euchelma</i> , etc, 1979
	Algal Culture History, 1956 – 1957
	Tissue Culture, 1981
	El Niño, 1983
	Biogas Production, 1981
	Biofouling, 1983
	NASA, 1983

Box	Folder Title
14	Oil Seep Study, 1984
	Coal Oil Point
15	Sewage Outfalls, 1982 [3 folders] Mandalay Canal Report, 1967
	Prints for <i>Celidium</i> Proposals [with negatives]
	Data cards
16	China [Citizen Ambassador Program Seaweed Aquaculture Delegation to the People's Republic of China, 1990]
	<i>Chondria</i> - Nuclear Division
	Rahimian, Hossein, Michael Neushul, and Richard D. Fetter, "An Ultrastructural Study of Membranes of <i>Cryptomonas ovata</i> ," 1980 [unpublished]
	Seaweed Attachment Method, Japanese Patent, 1978
	Patent, "Method for the Treatment of AIDS Virus and Other Retroviruses," 1988
	[<i>Cryptomonas</i>] unpublished manuscript [Figures]
	Ultrastructure <i>Chrysochromulina</i> -ref [figures]
	Dictyosome Form and Function, Unpublished Manuscript, 1974
	Neushul, M. And D.H. Northcote, "A Complementary Freeze-Fracture Study of <i>Chrysochromulina Chiton</i> (Haptophyceae), 1976
	Class Studies on <i>Bryopsis</i> , 1969
17	[<i>Bryopsis</i>] Class Study [Botany 171, Developmental Phycology] [3 folders]
	Mariculture Course - Reprints for Lectures
	Mariculture 1992 [Transparencies]
	Wet stack preserved materials list, 1965

Box	Folder Title
17	<p>[Killer/Natural Killer (K/NK) Cells]</p> <p>In Vitro Immunology</p> <p>AIDS - Anti-viral, 1990 Algal Life Histories (Models)</p> <p>Enzyme Production Extraction</p> <p>Ammonia and Phosphate Analysis of Sea Water - Instructions, etc., 1982</p> <p><i>[Botryocladia]</i></p> <p>[Biology 149/249, Mariculture: Research Frontiers in Farming the Sea] 1979 - 1991 [5 folders] (continued in Box 18, 19)</p> <p><i>Porphyra</i> Cultivation, 1981</p> <p>Development of Techniques for Utilization of Algae, n.d.</p> <p>Macroalgal Mariculture, La Paz, 1980</p>
18	<p>Final Report to Learning Resources. Mariculture Laboratory Development 1985-1987, 12 August 1987</p> <p>The Aquatic Environment, n.d</p> <p>History of Mariculture, 1980 - 1987/ Proposal, 1980/ Laboratory, 1985 [Notebook]</p> <p>Mariculture, 1987 - 1989 [Notebook]</p>
19	<p>[Correspondence, 1961]</p> <p>[Correspondence, 1962]</p> <p>[Correspondence, 1964]</p> <p>[Correspondence, 1966]</p> <p>[Correspondence, 1967]</p> <p>[Correspondence, 1968]</p>

Box	Folder Title
19	[Correspondence, 1969]
	[Correspondence, 1970]
	[Correspondence, 1971]
20	[Correspondence, 1971] [4 folders]
	[Correspondence, 1972] [3 folders]
21	[Correspondence, 1972] [2 folders]
	[Correspondence, 1973] [2 folders]
	[Correspondence, 1974] [2 folders]
	[Correspondence, 1975]
	Marine Plant Community Dynamics, UCLA Lecture, 1971 – 1972
	Research Program Planning, Marine Botany Program
22	New Proposals, 1980 - 1983
	Bio-Expo '85: Marine Farm Engineering, Genetics & Algal Production, 1985
	Image Analysis - TARGA, n.d.
	Microencapsulation w/?, 1991
	Food and Agriculture Organization (FAO) Zernate Mapping [Species Identification Sheets, 1990]
	Computer Interfacing - AST, 1983 – 1989
	<i>[Dictyopteris]</i> 1968 – 1970
	Vernand, Ramona, “ <i>Dictyopteris</i> as an Experimental Organism in the Study of Organization,” 1966
	<u><i>Dictyopteris</i></u> , Growth and Reproduction, Summer 1969
	Brown Algal Cell Walls

Box	Folder Title
23	<p>Brown Algal Cell Wall Formation</p> <p><i>[Sarcodiotheca]</i> Growth,</p> <p>Greenhouse Shaker Table Expt. I Outlines, 6/13 - 6/23, Wax Paper Tracings, Already Measured</p>
23	<p>Marginal Epigenesis, 1979</p> <p>Fourteenth International Seaweed symposium, 1992</p> <p><i>Sargassum</i></p> <p>Microencapsulation, 1991</p> <p>Culture Collections, 1963 - 1990</p>
24	<p>Bibliographies - Other Algologists</p> <p>Ver Hoven, Bret, "Investigations of the Mucilage Canals in <i>Macrocystis pyrifera</i>," Botany 171, 1981</p> <p>Freeze-Etch - Budgets, Finances, 1979</p> <p>UCSB Space File, 1977 – 1982</p> <p>General Research Grant Application, 1978</p> <p>General Research Grant, Freeze Etching Study, 1979 – 1980</p> <p>Marine Science Institute Review, 1989 – 1990</p> <p>PSP-Plan, 1986 - 1989</p> <p>[Botany Textbook Illustrations list, n.d]</p> <p>[Botany Textbook Illustrations ferns, n.d]</p> <p>[Botany Textbook Illustrations correspondence, n.d]</p>
25	<p>Illustrations</p>
26	<p>Illustrations and Reports, n.d.</p>

Box 27	Folder Title
	Amsler, Charles A.
R	(S. Miles Anderson) Masters Program
	(S. Miles Anderson) Sea Grant Notes, Work, Dives, 1979
R	(S. Miles Anderson) C.V., Personnel Information, 1976
	(S. Miles Anderson) Papers, 1979 – 1980
	(S. Miles Anderson) Thesis - Final Copy, 1980
	Andrews, John - Marine Algal Pathology, 1974 – 1975
	Anikouchine, W.A., n.d.
	[Barilotti]-Graduate Masters Thesis, Ph.D. Qualifying Exam, 1970
	[Barilotti]Correspondence, Curriculum Vitae, 1967 - 1978
28	[Barilotti] Notes, Projects, Papers, Publications, 1969
	Belsher, [Thomas], 1984 - 1989
	Bray, Richard, 1978
R	Brietburg, Denise, 1973
	Bushing, Bill [William W.], 1990
	Cao Shuli, 1982 - 1984
	Chai, Lin, 1985
R	Charters, Alexander C., Jr.
	Correspondence, Personnel Matters, 1979 – 1980
R	NASA-Ames Research Grant Proposal (Nutrient Enrichment), 1971
	(A.C. Charters)Papers, Abstracts, Progress Reports
	(A.C. Charters) Correspondence

Box	Folder Title
28	(Chi, Emil Yimuo) Language Exam, Ph.D. Exam, Dissertation Approval
	(Chi, Emil Yimuo) Letters of Recommendation, Correspondence, Curriculum Vitae
	(Chi) Papers
	(Chi) Papers
29	Cook, Malcolm J.
	Coon, David [Correspondence]
	(Coon, David) Correspondence, Resume, Sigma Xi Nomination
	(Dahl, Arthur Lyon) Correspondence, Letters of Recommendation
R	(Dahl, Arthur Lyon) Transcripts, Oral and Language Exams
	(Dahl) Papers
R	Dawes, Clinton J.
	Dewitt, Floyd
R	DuBois, Alfred
	Davenport, D. [Demorest], Biological Sciences Correspondence
	Fain, Steve [Steven R.]
	Fairchild, E. Bradley [2 folders]
	Fei, X.G. [Xiugeng]
	Felger, R.W. [Richard]
R	Fetter, Richard Course Work, T.A., Awards, C.V.
30	R Fletcher, Bob [Robert C.]
	Foster-Papers, Publications

Box
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Folder Title

(Foster, Michael S.) Letters of Recommendation, Curriculum Vitae,
Correspondence

[González] Fragoso, [Jorge Guadalupe]

Fuller, Thomas W

Gerard, Val

Goldstein, Steven

Gray, William E.

Antarctica, n.d.

Freeze Etching Electron Micrographs [Numerical Series]

Glaucozystis

photographs, n.d

Freeze Etching Electron Micrographs [Unidentified]

Cryptomonas

31

Freeze Etching Electron Micrographs [*Chrysochromulina*]

Colonic Musosa

Porphyra

Section in Meristem

Yeast

Peridinium

Pyramimonas

Prorocentrum

Photosynthetic Unit

Unidentified [3 folders]

Box	Folder Title
31	<p><i>Zonaria</i></p> <p>Phaeophyta</p> <p>Chi [2 folders]</p> <p><i>Dictyopteris</i></p> <p><i>Porphyridium</i></p> <p>Zonaria (Germ Cell Ultrastructure) III, Liddle and Neushul)</p> <p>Zonaria (Apical Cell and Division) IV, Dahl</p> <p><i>Dictyota</i> [male]</p> <p>Sperm Paper</p> <p>Dictyota Sperm</p>
32	<p><i>Macrocystis</i></p> <p>Dictyosome survey</p> <p>Fungal Septa - Bracker, Moor, 9-7</p> <p><i>Opuntia</i> Stomates, Horanic, 13-4</p> <p>(Apical Cell Ultrastructure) V, Neushul and Dahl</p> <p>Unidentified</p> <p><i>Prasinocladus</i> [3 folders]</p> <p>Dictyota Egg</p> <p>Freeze Etching Electron Micrographs Numerical Series</p>
33	<p>Numerical series</p> <p>Freeze Fracture Techniques [2 folders]</p> <p>[Data Identified]</p>

Box
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Folder Title
Kendall Comparisons

Correlations and Edge Effects,

Plant Populations, Hourly

Precipitation, Daily

Surface Weather Observations, Hourly

Nutrients, Nitrate

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Numbers and Sizes by Species, 7

Analysis of Plate Variance Treatments, 4

Telemetry [2 folders]

Sea Water Summary

Eppley

Ocean Temperature, Swell, and Visibility Data

Secchi Disk and Surface Nitrate Data

Light Availability

Measurements Calculated in Panama, Theoretical Calibrations

Productivity Experiment

Unidentified

Calculations with Measured Calibrations, UCSB

Equipment

Light Data

Einstein Photochemical Law

Unidentified

Box	Folder Title
34	Telemetry [2 folders]
	Unidentified [2 folders]
	Calibration Data
35	BH Dissertation Environmentals [4 folders]
	Image Processing
36	Smithsonian
	World Mariculture Society
	Aquaculture '83
	BioEnergy '84
	Orme, Antony
	Seventh International Seaweed symposium, Japan, 1971
	Charters, A.C., "Studies of Submarine Light in Forests of the Giant Kelp,
	Fei, X.G. and M. Neushul, "The Effects of Light on the Growth and Development of Giant Kelp," n.d.
	1979 meeting [American Institute of Biological Sciences] Phycological Society of America
	To Be Passed On [2 folders]
	PSA Meetings- Data Pertaining to Previous Ones
	[Phycological Society of America] (2 folders)
	January 1985
	February 1985
	December 1984
	Kelp Harvesting

Box	Folder Title
36	Substitute Natural Gas Supply
	Genetics
	Gametogenesis
37	March 1985
	{Marine Biomass Program, Plant Breeding and Genetics} April 1985
	May 1985
	June 1985
	July 1985
	August 1985
	Aquaculture '83, Algal Culture
	[Gas Research Institute Visit]
	[Institute of Gas Technology]
	Computer Files Gas Research Institute
	Charts
	[Pappo, Raphael]
	[<i>Cryptosiphonia woodi</i>]
	[Neushul Marine, Inc. - Financial Summaries] [10 folders]
	Property Control
	[Expenditures] [Neushul Marine, Inc.]
38	[Expenditures] [Neushul Marine, Inc.]
	[General Electric SERI Kelp Biomass Cultivation]
	[Department of Commerce Program Solicitation] [Small Business Innovation Research Proposals]

Box
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Folder Title

Agar, Alginate, and Carrageenan

[Bureau of Land Management]

Neushul Marine, Inc. - Correspondence

Prospective Clients

Potential Funding

Department of Agriculture [Small Business Innovation Research Proposals]

Department of Agriculture

Neushul, Michael, B.W.W. Harger, and G.A. Brosseau, "Studies of Biomass Yield from a Near-Shore Macroalgal Test Farm," D.L. Klass (ed.), *Energy from Biomass and Wastes, VII* (Institute of Gas and Technology, Chicago, 1983), pp.169-183.

Harger, B.W.W. and M. Neushul, "Test-Farming of the Giant Kelp, *Macrocystis*, as a Marine Biomass Producer," 1983 [3 folders]

Neushul, Michael and B.W.W. Harger "Studies of Biomass Yield from a Near-Shore Macroalgal Test Farm," *Journal of Solar Energy Engineering* (in press), 1984 [2 folders]

[Reprints] [2 folders]

39

[Coon, David, "Productivity of Macroalgae in North Pacific America"]

[Bolton, J.J. and R.J Anderson, "The Temperature Tolerances of Two Southern African *Ecklonia* species (Alariaceae, Laminariales) and of Hybrids Between Them"]

[Washington Sea Grant]

[Starr, Richard C., "Operation of a Culture Collection of Algae," NSF Proposal, 1979]

[Preston, James F., III, "Plant Mutants Resistant to Inhibitors of RNA Polymerase: Selection of Somatic Cell Hybrids," USDA Grant Application, 1980]

Box	Folder Title
39	[Meristem and Blada Data]
	[Data, Unidentified]
	Research 1976 – [UC Santa Barbara]
	Research 1978 [UC Santa Barbara]
	Biology 25 Lecture 11 [2 folders]
R	Teaching Files, Botany 170 - Shukle, Mark
R	Botany 170 Final Exam - Thurai-Ratnam, Suresh
40	R Botany 170 Final Exam - Soule, Stephan
	R Botany 170 Final Exam - Peruzzi, Nico
	R Botany 170 Final Exam - Green, Sarah
	R Botany 170 Final Exam - Sabado, Brian
	R Botany 170 Final Exam - Berejikian, Scott
	R Botany 170 Final Exam - Ferrante, Chris
	R Botany 170 Final Exam - Valdez, M.
	Botany 170, Figures, Text, and References - Rhodophyta, Chromophyta [1 folders]
41	Botany 170, Figures, Text, and References - Rhodophyta, Chromophyta [2 folders]
	Botany 170, 111, 180
	Water Tunnel II
	HW/HF Temperature Computation Circuit Analysis ACC
	NSF-MSI Anemometer
	Anemometer, TSI

Box
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Folder Title

Laser Anemometry, Mark Paul, UCSB Thesis, 1979

Microscope Equipment Wanted

EM - Freeze Etching Machines, Supplies

EM - Microtomes

EM – Techniques

Scanning Electron Microscopy 1973 [Handbook] [Microscopy –
Techniques]

Microscopy – Operation

Microscopy - History

Microscopy - Micrometer Photographs

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Underwater Microscopy

Botany 170, Lecture Notes

Report System - Software

Report System – Neushul Marine, Inc. [Sponsor List]

Botany 170, 1988 – 1. Introduction

Introduction

Botany 170 “Introduction to Phycology” – Lecture 1: Introduction

Lecture 2: Macroalgal Habitats and Adaptations [2 folders]

Lecture 3: The Brown Algae (Phaeophyta) - Structure and Function

Lecture 3: Brown Algal Diversity

Lecture 4: The Brown Algae (Phaeophyta) - Evolution and Development

Lecture 4: Brown Algal Structure, Function, and Evolution

Lecture 5: Blue-Green Algal Diversity

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Folder Title

Lecture 8: Red Algal Structure and Function

Lecture 10: Golden-Brown Algae

Lecture 11: Genetics and Reproduction

Lecture 12: Kelp Reproduction in the Sea

Lecture 13: Green Algae II, IIA - Phytoplankton and the Iron Hypothesis

Lecture 13: Green Algae II, IIA - Replaced by New Lecture #13, 1992

Lecture 13: Green Algae II, IIA - Coenocytes and Coenobia, New Lecture 13

Algae and Biotechnology

Protozoology

Botany 170 - Keys [2 folders]

Charophytes

Algal Development

Piedras Blanca [2 folders]

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Electron Microscopy

Light Microscopy

Methods/Keys/Photography/Lab Set-up

Coal Oil Point and Lento Overpass

Microscopy Slides - August 1965

Microscopy Slides - Untitled

45

Microscopy Slides - *Gelidium*

Microscopy Slides 15 May 1966 to 18 July 1966

Microscopy Slides - A, 1954

Box	Folder Title
46	Microscopy Slides - <i>Zonaria</i> , l.s. and x.s of just veg., 1968
	Microscopy Slides - <i>Zonaria</i> , labeled _, actually sporophyte
	Microscopy Slides – 61-69 through 61-16
47	Microscopy Slides - B, Brown, 1956 - 1959
	Microscopy Slides – Spore Attachment
	Microscopy Slides - 51.101 - 51.195, 1967
48	Microscopy Slides – Untitled
	Microscopy Slides - 51.201 - 51.300, 1967
	Microscopy Slides - 51.1 - 51.100
49	Microscopy Slides - <i>Nemalion</i>
	Microscopy Slides - 53.1 - 53.12
	Microscopy Slides - <i>Dictyota</i> , 1969
50	Microscopy Slides - 1057 - 1205, 1415 - 1444
	Microscopy Slides – 60.1 – 60.12
	Microscopy Slides – 51.5 – 51.224
51	Microscopy Slides - Electron Microscope Stubs
	Microscopy Slides - Untitled [2 microscope cases]
	Microscopy Slides - AA-AZ, BA-BT
52	Microscopy Slides - 52.2 - 52.59
	Microscopy Slides - Untitled
	Microscopy Slides - C
	Microscopy Slides - E-18.1 - E-18.39, E-14.1 - E-14.13

Box	Folder Title
53	<p>Microscopy Slides - 61-101 through 61-200</p> <p>Microscopy Slides - Antarctic sugar slides, Antarctic Identification Sugar Mounts</p> <p>Microscopy Slides - Untitled</p> <p>[Biology 25 - Lectures, 1991]</p> <p>[Untitled Folder]</p>
54	<p>Botany 171, Biology 194S/595S, Biology 2B, 1976</p> <p>Teaching Files – 199/299/ Meetings with Students/ Research Programs/ Bibliographic Programs</p> <p>UCSB Culture Collection and Kellogg Foundation Proposal, 1985</p> <p>Inflammatory Bowel Disease (IBD) Bibliography [2 folders]</p> <p>Inflammatory Bowel Disease - Reprints [2 folders]</p> <p>UCSB Anacapa Island Survey, [Book II]</p>
55	<p>UCSD Anacapa Island Survey, [Book I]</p> <p>Inflammatory Bowel Disease – [Reprints] [2 Folders]</p> <p>Inflammatory Bowel Disease - Colonoscopy</p> <p>Inflammatory Bowel Disease - Electromicroscopy</p> <p>Inflammatory Bowel Disease - An Ultrastructural Study of Inflammatory Bowel Disease – Grant Application</p> <p>Inflammatory Bowel Disease - Original Ultrastructural Proposal with Figures</p> <p>Algal Pharmaceuticals</p> <p><i>Porphyridium</i> F.E.</p> <p><i>Triticale</i> (cross between wheat and rye), courtesy of Rockefeller Foundation</p>

Box	Folder Title
55	<p>Ultrastructure - <i>Chrysochromulina</i>-ill</p> <p>Ultrastructure - Membrane Reassembly--Photosyn. u.</p> <p>Neushul, Stephen - "An Experimental Study of Hydrofoil produced Breaking Waves"</p> <p>[Neushul, Michael and D.H. Northcote "A Complimentary Freeze-Fracture Study of <i>Chrysochromulina chiton</i>"]</p> <p>Botany Textbook – [Appendices]</p>
56	<p>Botany Textbook - Background, 1967</p> <p>Botany Textbook – [Computer Disks]</p> <p>Text - <i>Introductory Botany</i> by M. Neushul, C.K. Tseng and T.C. Fang Introduction - Chapter 9</p> <p>Text - <i>Introductory Botany</i> by M. Neushul, C.K. Tseng and T.C. Fang Chapters 10-15</p>
57	<p>Text - <i>Introductory Botany</i> by M. Neushul, C.K. Tseng and T.C. Fang Chapters 16-24</p> <p>Guerrero, Rafael and Ana, Inst. Poly Mexico - Papers, Various Coll. Progr., Notes</p> <p>Guerrero, Rafael and Ana, Inst. Poly Mexico - Correspondence</p>
R	<p>Haley, Barron Robert - Correspondence</p> <p>Haley, Barron Robert -Thesis</p> <p>Harger, Bruce W.W. - Abstracts, Research Proposals</p> <p>Harger, Bruce W.W. - Conference Notes</p>
R	<p>Harger, Bruce W.W. - Transcript, Ph.D. Info and Correspondence</p>
R	<p>Harger, Bruce W.W. - Letters of Recommendation, Correspondence, Curriculum Vitae</p>

Box	Folder Title
57	Bruce W.W. Harger and Mark Hay, "Tropical Algal Ecology Project: Six Month Progress Report," April 1978
	Harger, Bruce W.W. - Figure Originals
R	Thesis Drafts, Connell's Response to Harger, Neushul (Confidential)\
58	Hinchman, Ray Richard
	Ioriya, Teru
R	Kramer, John B. (Jack)
	Kuga, Virginia
	Laur, David R.
	[Lewis, Raymond J.]
R	Liddle, Larry B. - Transcripts, Ph.D..
R	Liddle, Larry B. - Letters of Recommendation, Correspondence, Curriculum Vitae
	Liddle, Larry B. -Papers, Abstracts
	Lüning, Klaus - Correspondence
	Lüning, Klaus and M. Neushul, "Light and Temperature Demands for Growth and Reproduction of Laminarian Gametophytes in southern and central California"
	Lüning, Klaus - Data
	Macdonald, Robert L.
	MacIntyre, Sally
	Markham, James W.
	Mathieson, Arthur C - Correspondence
	Mathieson, Arthur C - Papers, Abstracts, Outlines, etc.

Box	Folder Title
58	Mathieson, Arthur C - Biographical Information, C.V., etc.
	Melo, Ricardo – Correspondence
	Melo, Ricardo - “The Effect of Light on Spore Release by the Agar-Producing Alga, <i>Gelidium robustum</i> ”
59	Melo, Ricardo - “The Domestication and Cultivation of <i>Gelidium</i> (Rhodophyta)”
R	Murray, Steven N. - Correspondence, Letters of Recommendation, Curricula Vitae
	Murray, Steven N. - Papers, Transcripts
	Niell, F. Xavier
	Norris, James N. - Papers, Publications, Photographs [2 folders]
	Norris, James N. - Correspondence
R	Norris, James N. - Letters of Recommendation, Curricula Vitae
	Norris, James N. - Program Notes
	Norris, James N. - Thesis Information, Ph.D.. Exam
	Norris, James N. - Grant Proposals, Research Activities
	Norton, Trevor A. - Papers, Abstracts, Outlines
	Norton, Trevor A. - Correspondence
	[University of California Benefits]
	[American Federation of Teachers]
60	[Neushul Marine, Inc. - Log Sheet]
	[Immunology Reprints]
	[<i>CDC AIDS Weekly</i>]
	[Santa Barbara City Marina]

Box
60

Folder Title

[Biology 25 - Introduction to Marine Biology]

[National Science Foundation - Ethics and Values Studies in Science, Technology and Society]

[Botany 170 - Intertidal and Subtidal Zonation]

[Reed, Daniel C]

[Aquaculture '89]

[Environmental Studies 197C]

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[Neushul, Peter, "The California Kelp Industry: 1910-1918," n.d.]

[Rocheffort, W.E., R. Clark, and E.F. Matthys, *Experimental Investigation of the Extensional Flow and Drag Reduction Properties of an Exopolysaccharide from Giant Kelp (Macrocystis pyrifera)*, UCSB-ME-89-3, 15 February 1989]

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Pollination Seminar, 1977

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Biology 1C - Plant Diversity, 1967

Botany 171 - 1978

Box	Folder Title
61	<p>Biology 1C - Land Plant Strategy - (<i>Fucus</i> Film) - Green and Brown Algae Compared</p> <p>Biology 1C - Land Plant Ecology. Distribution Strategies in Flowering Plants - Flower, Fruit, and Seed Adaptations, May 30</p> <p>Biology 1C - Land Plant Histories</p> <p>Biology 1C - Land Plant Reproduction</p> <p>Biology 1C - Aquatic Habitats and Aquatic Plants</p> <p>Biology 1C - Plant Anatomy</p> <p>[Biology 149/249] 1992</p> <p>Botany 170 Lab Manual</p>
62	<p>“Laboratory Topics in Botany,” by Ray F. Evert, Susan E. Eichhorn</p> <p>“Preparation Guide for Laboratory Topics in Botany,” by Susan E. Eichhorn, James W. Perry, Ray F. Evert</p>
R	<p>Biology 25 - Winter 1989</p> <p>UCSD Self-Study for Reaffirmation of Accreditation</p> <p>Techniques - Micrometer Staining - Fluorescence</p> <p>[Kelp Growth Data] Float Operation I, September - October 1957 [3 folders]</p>
63	<p>[Kelp Growth Data] Float Operation 4, October 1957 - January 1958 [4 folders]</p> <p>[Kelp Growth Data] Untitled [3 folders]</p>
64	<p>[Marine Productivity Transparency, n.d.]</p> <p>Chapter 7. “The Kelp Beds of the Southern California Bight.” A Contribution to the Pre-Operational Baseline Report for the San Onofre Nuclear Generating Station Units 2 and 3 of the Southern California Edison Company, 17 April 1981</p>

Box	Folder Title
64	Slides - Plants [untitled; arrange alphabetically by scientific name and title]
65	Slides - Plants [untitled; arrange alphabetically by scientific name and title] Slides - Hybrid Photos [with negatives]
66	Slides - Microalgae [with negatives] Slides - Storage Compartments of Nitrogen in Giant Kelp, A. Kuenzii Slides - Classroom Slides - Rahimiam Slides - P_1xD_6, D_18xP_12 ABC Slides - Zonaria, High vs. Low NO ₃ , S. Engrav Slides - Osmophore pictures taken from S. Vogel's book Slides - Mac_xMac_A,B+P_1XD_6
67	Slides Water tunnel methods paper [Cell Walls] TV graphics Botany Illustrations [2 folders] Miscellaneous Illustrations Thesis Photos Red Algae [3 folders]
68	[<i>Macrocystis</i>] [Rolls Royce]

Box	Folder Title
68	[Botany 170/270 Lecture Notes] [Botany 109 Algology] [Biology 25 Lecture Notes] Freeze etching – techniques Freeze Etching [2 folders] Porphyridium Freeze Etch Prints
69	Freeze etching Marine Biology at UCSB [2 folders] Keys [2 folders]
70	Keys [2 folders] Algal Hydro-research, Alex Charters - Volume I Algal Hydro-research, Alex Charters -Volume II Instrument Development 1980, Water Broom Flow Fields, Algal Hydrodynamic A.C. Charters, 1970-1980 Algal Hydrodynamics Field Notebook, 1979 Nutrient Uptake, Hydrodynamic Studies, Notebook #2, Miles Anderson
71	Nutrient Uptake, Hydrodynamic Studies, Notebook #3, Miles Anderson Charters, A.C. [negatives] [2 folders] Proceedings of the Joint China-U.S. Phycology Symposium Santa Barbara Oil Pollution, 1969 Ninth International Seaweed Symposium, UCSB, 1977 Okuda, Takeo and Michael Neushul, “Sedimentation Studies of Red Algal Spores”

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72 R Biology 11 Lab, Trisha Drew [Composition Book, includes Phychology - Botany 170], 1987 – 1991

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73 Botany 171 - 1973

Seawater System – UCSB

Pending Grants [4 folders]

Environmental Data Management System

Box	Folder Title
73	Chrysophyta - <i>Chrysophyta xanthophyceae</i>
	Chrysophyta - <i>Chrysophyta bacillariophyceae</i>
	Chrysophyta - Submicroscopic structure
74	Chrysophyta - Classification and bibliography
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	[Botany 171 Lecture Notes]
	[Teaching Files]
	Okuda, [Takeo], Correspondence
R	Olsen, David A. - Letters of Recommendation, Correspondence
R	Olsen, David A. - Papers, Articles, Photographs, Notes
R	Orwig, Deborah
R	Partoyan, Karen
	Pieper, Richard
	Polne, Miriam
R	Powell, Joseph – Letters of Recommendation, Correspondence
R	Rahimian, Hossein
R	Scott, Joseph - Letters of Recommendation, Correspondence
	Scott, Joseph - Photographs, Papers, Publications
	Reed, Daniel C.
75	Sanbonsuga, Yoshiaki, Manuscripts

Box	Folder Title
75	Schonbeck, Mark [Papers]
R	Schonbeck, Mark - Letters of Recommendation, Correspondence
R	Silverthorne, G. Wesley - Letters of Recommendation, Correspondence
	Silverthorne, G. Wesley - Papers, Publications
R	Shivji, Mahmood
	Smith, Kent
	Sorensen, Philip E.
R	Stouder, Deanna
	Stretch, Jim [James Joseph]
	Tözün, Bilgin
	Triodi, Giacomo, Sr. Postdoctoral, June 1973
	Vadas, Robert L.
	Walker, David Cabot - Correspondence
	Walker, David Cabot - Manuscript Notes, Program Notes, Language
	Exam
	Walker, David Cabot - Manuscript and photo - Walker, Chi, and Neushul,
	“Experimental Studies of Cytoplasmic Organization of <i>Zonaria</i> Apical
	Cells”
	Walker, David Cabot - Draft Thesis Material
	Wheeler, William N. - Correspondence
R	Wheeler, William N. - Letters of Recommendation, Biography (UCSB
	Form)
76	Wheeler, William N. - Abstracts, Papers
R	Wheeler, William N. - Exams, Traineeship Info, Program Notes

Box	Folder Title
76	Woesnner, James - Correspondence, Photos
	Woesnner, James - Seaweed Samples
	Woesnner, James - Ph.D. Work
R	Woesnner, James - Letters of Recommendation
	Woesnner, James - Reprints, Bibliographies, Abstracts, Charts, Maps
	Woesnner, James - Written Examination in Phycology
R	Woesnner, James - Traineeship Info, Program Notes
	Yarish, Charles
77	R Zarmouh, Muftah
R	Zingmark, Richard G. - Correspondence, Letters of Recommendation
R	Zingmark, Richard G. - Program Notes, Transcripts, Exams
	Zingmark, Richard G. - Papers, Abstracts, Publications
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78	Morgan, James J. And Wheeler J. North, "Marine Biomass Program (Yield and Biological Studies," 1981
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Second Quarterly Report, 1 July - 30 September 1982

NSF Quarterly Reports, The Development of a U.S. Source of Agar
Third Quarterly Report, 1 October - 31 December 1982

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Folder Title

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Fourth Quarterly Report, 1 January - 31 March 1983

NSF Quarterly Reports, The Development of a U.S. Source of Agar
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1982-1983

Farm Figures

Farm Ideas, Notes, Sketches

Nichimo Type (Taut-Moored)

Agar May 1982

Agar June 1982

Agar July 1982

Agar August 1982

Agar September 1982

Agar October 1982

Agar November 1982

Agar December 1982

Agar January 1983

Agar February 1983

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Accordion Farm - Harvest and Growth Raw Data, 22 September 1982

Accordion Farm - Harvest Processing, 21 December 1982

Original Agar Farm Proposal

80

Farm Seeding Ideas

Box
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Folder Title

Hydrodynamic Tests

Rope-Line Farm

Storm Report, 1983

Weekly Staff Plans, Monthly Plans - Old

Gelidium Sample Plant Data

Project Notes

Panel Planting Maps

Panel Ideas

Orders

Moorings

Milestones

Meetings - Notes

Library Search

Equipment Designs

UCSB Electronics Equipment Status

Leaky Hose Manifold

Plant Data

Consultation

Purchase, April 1983

Trailer - Purchasing

Motor Home

Standard Lamp (Gamma Scientific)

TXP

Box	Folder Title
80	Telemetry [2 folders]
81	Irradiance Meter CAN
	Telemetry Records
	EMP System Notes
	Telemetry Drawings
	Recorder – Tipptronic
	Water Broom - Disks, Index Bar
	Water Broom - Experiments 1972
	Water Broom - Drawings
	Wet Lab - Notes, Plans, Drawings
	Zodiac [inflatable boat]
	Neushul Mariculture - Untitled Data [9 folders]
82	Neushul Mariculture – Untitled Data [11 folders]
	Growth and Production of Spores by Sporophylls Experiment, Tracings
	Revised Farm Maps: Plot #1 and 2, January 1982
	Cataloging Maps - Originals
	Cataloging Maps - Original: Plot #1
	Cataloging Maps - Original: Plot #2
	Goleta Kelp Plant
	Photographic negatives
83	Glass Plate negatives - Resined Specimens, EM Plates, August 1970
	Glass Plate negatives - Chilled Experiments, August 1972

Box	Folder Title
83	Glass Plate negatives - Ruthenium Red Experiment, March 1971 Glass Plate negatives – 27000, March 1971
84	Glass Plate negatives - Colchicine 0.05%, August 1971, April 1970 [2 boxes] Glass Plate negatives - Sperm Paper, September 1971 Glass Plate negatives - Macrocystis Paper, Pyrenoid Paper, October 1970
85	Glass Plate negatives – 02856 (101), 23367, 24415, May 1969 Glass Plate negatives - Macrocystis Spore, March 1971 Glass Plate negatives – Chi, August 1970 Glass Plate negatives - July 1971
86	Glass Plate negatives – Chi, 25259, January 1971 Glass Plate negatives - Cell Wall and Sperm, February 1972 Glass Plate negatives – 23001-23378, September 1970
87	[Biology 595] [Botany 170] [2 boxes] Algology Course Untitled Patch Theory
88	Kelp Biomass Southern California Kelp Beds Dawson's Stations - Oil and Intertidal Transects Dawson's Stations - Ecology Kelp Cultivation/Mariculture of Nereocystis

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Folder Title
Kelp Dryers

Kelp Biomass Fuels
Fertilizers

Intergeneric Hybridization and Systematics of Kelp

Kelp and Algal Diseases

Kelp Development

Kelp Fertilization

Iron and Kelp

Conversion Factors

Algal and Kelp Growth

Seaweed Growth, A.C. Mathieson

Kelp Ultrastructure

Kelp Holdfasts

Kelp Limnoria

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The Kelp Plant

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Box	Folder Title
89	Muller, D.G. and I. Maier, "Californian Giant Kelp: Sexual Hormone Identified" Untitled
	Kelp Bed Areas/Kelp Mapping
	Kelp Bed Leases
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	Kelp Yield
	Kelpahol → to complete Kelpahol 2
	Kelp Spines
	Correspondence, Michael Neushul 1979
90	Correspondence, 1978
	Correspondence, 1969-1970 [2 folders]
	Correspondence, 1983-1990
91	Correspondence, 1981-1987
	Correspondence, 1976
	Correspondence, 1977
	Correspondence, 1973
	Correspondence, 1975
	Correspondence, 1974
92	Correspondence, 1982
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	Neushul, Michael, " <i>Studies on the Growth and Reproduction of the Giant Kelp, Macrocystis</i> " Ph.D. Dissertation, UCLA, June 1959 [annotated]

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92	Neushul, Stephen, "An Expanded Bed, Attached-Film, Anaerobic Digester Designed to Reduce Marine Biomass to Methane"
	Botany 170/270
	Biology 25
	Bushing, William W., Dissertation Outline - Remote Sensing, n.d.
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93	Lecture 8: Red Algal Structure and Function and Evolution [2 folders]
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	Lecture #3: Brown Algal Diversity
	Botany 170 – 1976
	Bio 149/249 - #20
	Demethylation
	Piedras Blancas
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94	"Seed Germination, Seedling Establishment, and Anatomical Features of the Palo Verde Trees, in Relation to Their Distribution. Partial Discussion of <i>Ricinis communis</i> ," 6 March 1954
	Harger, B.W.W., "The Isolation of Cytotoxic Natural Killer Cell Receptors," SBIR NIH – Cell Receptors 1985
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	<i>Dictyopteris efforis</i> , 1965
	Dictyota Sperm

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94	Botany 171
	Neushul, Michael and E.Y. Chi, "Wall Structure and Cell Specialization in Brown Algae," 1972
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	Nutrient Notebook, Virginia Kuga, Marine Lab #3, 26 February 1980 - 14 September 1981
	Baja Aggregate Succession, 1978. C ¹⁴ Agg., 1980
	Kelp Growth in the Sea, 1956 - 1957 [2 folders]
97	Kelp Growth in the Sea, 1956 - 1957
	Photos and Negatives - Harger
	Photos and Negatives - Untitled

Box
97

Folder Title

Photos and Negatives - Untitled with Negatives [4 sets]

Photos and Negatives - *Gelidium* Plants from Goleta Bay to be Integrated into the Photo System. For Goldstein

Photos and Negatives - Nine Color Prints – with negatives (Ropes)

Photos and Negatives - *Gelidium*: Seven Plants Hanging, One T 11, Another V1 (Single Print)

Photos and Negatives - *Gelidium* 120-3RS-8640 386

Photos and Negatives - 7-17: 1 Q1 1-17; 1 11 1-7; 1 1Q 1-5

Photos and Negatives - GB-1681: T 8, 10, 11, 15. CP-1681: Q 2-14; R 1-5, 7, 11-14, 22, 24-26

Photos and Negatives - GB-1681: T 3, 5-8; U 1-9, 11-15; V 1, 5-8, 11; Z 1, 7-12, 14-15

Photos and Negatives - 7-17, GB: T 24-25; U 21, 23, 25; V 21-24. 7-17, CP: Q 24, 25; S 21-26

Photos and Negatives - 7-17, GB: T 1-17, 19; U 1-13

Photos and Negatives - CP July 24: X 1-15; Y 1-15; Z 11-15

Photos and Negatives - 10- , GB: T 20-25; U 22-25; V 21-15; Z 16-20. 10- , CP: Q 22-25; S 21-25; X 16-19

Photos and Negatives - *Gelidium*. Q 1-14; S 1, 2; X 1-15; Y 1-4, 8

Photos and Negatives - R 1-9, 11-13, 15, 22, 25-27, 41-47, 49; W 41-42, 47-50; Y 16

Photos and Negatives - R 21, 24, 28-35; W 1-5, 7-8, 10, 14, 21-28, 31-35

Photos and Negatives - 10-23, GB: V 1-15. 10-23, CP, Ropes: 4-11, 14, 10-23, CP

Photos and Negatives - 10-23, CP: Y 5, 6, 9-13, 15; Z 1-14. 10-23, GB: Z 14, 15

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97	Photos and Negatives - 10-23 GB: T2-12, 14-15; V 1-8, 10-15. 10-23, CP: S 3-6, 8-15
	Photos and Negatives - R 27, 28, 32, 33, 35; S 1-6, 8-12, 14, 15; W 1-5, 7, 8, 10, 11, 13,14, 21-`
	Photos and Negatives - W 26-28, 31, 34, 35; X 1-15; Y 1, 2, 4-10, 12-15
	Photos and Negatives - CP-1681 4-27 (no let.)
98	Correspondence, 1955 - 1956
	Correspondence, 1957 - 1958
	Correspondence, 1958 - 1959
	Correspondence, 1959
	Correspondence, 1959 - 1960 A-D
	Correspondence, 1959 - 1960 F-H
	Correspondence, 1959 - 1960 I - Neushul
	Correspondence, 1959 - 1960 North - R
	Correspondence, 1959 - 1960 S - Z
99	Correspondence, 1960 - 1961 - DEF
	Correspondence, 1960 - 1961 - GHI
	Correspondence, 1960 - 1961 - JKL
	Correspondence, 1960 - 1961 - MNO
	Correspondence, 1960 - 1961 - PQR
	Correspondence, 1960 - 1961 - STU
	Correspondence, 1960 - 1961 - VWXYZ
	Correspondence, 1960

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99	Spanish Correspondence
	Grant Projects and Procedures Correspondence, 1968
100	Correspondence, 1980
	Correspondence to September 1964
	Correspondence, 1966
	Correspondence, 1965
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101	Pilot House Log
	South America, 1960
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	Gantt, Elisabeth, “Structure and Function of Phycobilisomes: Light Harvesting Pigment Complexes in Red and Blue-green Algae”
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	Teaching
	Botany 170 - Lecture 13, Phytoplankton: the Paradox of the Plankton
	Botany 170 - Lecture 14, Dinoflagellates and Cryptophyceans [2 folders]
	Botany 170 - Lecture 15: Green Algal Diversity and Evolution [2 folders]
	Botany 170 - Lecture 16, Euglenids and Green Algae
	Botany 170 - Lecture 17, Algal Growth
	Botany 170 - Lecture 18, Algal Biotechnology

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Folder Title

Botany 170 - Lecture 19, Review of Phycology [2 folders]

Botany 170 - Lecture 19, Slides

Botany 170 - Lecture 20, A Review

Botany 170 - Discussion and Final Exam [2 folders]

Botany 170 - Anti-viral Carbonates, with slides

Botany 170/270 - 1989 - 1990

Botany 170/270 - 1991

Biology 234

Phycology - 1984

103

Phycology – 1985

Comparative Phycology, 1986

Underwater micrography - Photomicrography all sorts

Mouse Con-A Blast Lymphocytes, Complementary Replicas

Photographs, Charts, and Illustrations

[Photographs] Brown Algae

[Photographs] *Dictopteris*

[Photographs] *Dictyota*

[Photographs] *Eisenia*

[Photographs] *Euchema*

[Photographs] Green Algae

[Photographs] *Halymenia*

[Photographs] Kelp - Anatomy

Box
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Folder Title

[Photographs] Hybrid Illustrations

[Photographs] Kelp - Wounds, Galls

[Photographs] Miscellaneous Adhesion Illustrations

[Photographs] Padina

[Photographs] Postelsia

[Photographs] Sciadophycus

[Photographs] Sphacezaria

[Photographs] Syringoderma 1961

Zonaria - Sperm

Zonaria - Antheridia

Zonaria - Centrifugation, Oogonia, Sporangia, Antheridia

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Zonaria - Eggs

Zonaria - Oogonial Sori

Zonaria - Centrifugation

Zonaria - Zygote and Spore Germination

Zonaria - Band Cross Sections, Photos by J. Westfall, Botany 171, 1973

Zonaria - Hair Cells

Zonaria - Apical Meristem

Zonaria - Tetraspore Growth

Puerto Deseado 1961

Submarine Transects--Coal Oil, Naples

Underwater microscope

Box	Folder Title
105	Underwater Railroad, Neushul and Powell, Ecol. Ms., 1964
	<i>Dictyota</i> Efforts, October 1966 - 1967
	Antarctic - Light and Ice
106	Antarctic - Identification
	Antarctic - Publicity
	Antarctic - Distribution of Algae, Folio
	Antarctic - Diving Observations
	Antarctic - Plant, Animal Associations
	“A Freeze-Fracture Study of the Role of Membranes in the Synthesis of Scales and Periplast Plates in the <i>Chrysochromulina</i> ,” Illustrations and Correspondence for <i>American Journal of Botany</i> paper.
	Chemistry of Sea Water, 1957
	[Photographs, Kelp, 1957-1961] Kelp - Abnormal Kelps and Neushul Hybrids
	Fertilization Experiments, Miles Anderson, Field Notes, Fertilization Experiments, 1978
	Fertilization Experiment, Preliminary
	Fertilization Experiment, Buoy Module Experiment
	Neushul, Michael “Benthic Marine Algae” <i>American Geographical Society</i> , Folio Series, 1967
107	Kelp - Cultivation, Transplanting [2 folders]
	Kelp - Herbarium
	Kelp - Ecology (plant/animal associations)
	Kelp – Flora
	Kelp - Hybrids and Hybrids Growth [2 folders]

Box	Folder Title
107	Kelp - Morphogenesis, Photoperiodicity
	Kelp - Research Bibliography
	Macrocyptis - Growth [4 folders]
	Macrocyptis - Distribution of
108	Macrocyptis - Spores
	Kelp - Hybrids
	Kelp Growth [2 folders]
	Kelp Growth, ["The Harvesting of Giant Kelp, Marcrocystis, in California," 1978]
	Kelp Growth [Scripps Institution of Oceanography, 1956-1958, Photographs]
	Stauffer Harvest Data
	Botany 181, Plant Life of the Sea, University of Hawaii, Summer 1972
109	Botany 595I, Fall 1974 [Teaching Files] [2 folders]
	Botany 595I, Group Studies in Phycology, UCSB, 1974 [Teaching Files]
	June-July 1968 [Teaching Files] [3 folders]
	"A Laboratory Manual for Phycology," D. Orwig, UCSB [Teaching Files] [2 folders]
	Plant Physiology Seminar – 194-294N – Teaching Files] [2 folders]
	Neushul, Michael and David Coon, Research 1969 - 1976, with Final Report to the NSF [National Science Foundation] [3 folders]
110	Neushul, Michael and David Coon, Research 1969 - 1976, with Final Report to the NSF [National Science Foundation]
	Biology 149/249, Mariculture, Spring 1984 [Teaching Files]
	Biology 149, Mariculture, Spring 1983 [Teaching Files]

Box	Folder Title
110	<p>Biology 149/249, Neushul, Morse, Core Readings in Mariculture, 1985 [Teaching Files]</p> <p>Biology 149, Mariculture [Teaching Files] [2 folders]</p> <p>Berkman, Paul A., "Induced Chromatic Adaptation," Botany 171, 1979</p> <p>Neushul Mariculture, Inc. Subcontract with Woodward-Clyde Consultants, 1983</p> <p>Bucket Test Swirl, June 1982</p> <p>[Reprints, March 11, 1960-1980]</p> <p>[Reprints]</p> <p>Genetics, HP Output, Dave Cooy</p> <p>U.S. and China Kelp Research Mounting Medium Analysis, October 1984</p>
111	<p>National Science Foundation - Genetics, 1984 - 1985 [2 folders]</p> <p>National Science Foundation – Genetics I, 1984 [2 folders]</p> <p>National Science Foundation – Genetics II, 1984 - 1985 [2 folders]</p> <p>National Science Foundation - Kelp Hybridization 1976-1977 [2 folders]</p> <p>Coal Oil Point Project Reports, 1976 [3 folders]</p> <p>Coal Oil Point Project Reports, 1976</p>
112	<p>[Kelp Keywords]</p> <p>[Kelp Bibliographies]</p> <p>[Smith, Kent A.]</p> <p>[20-1, Photographs] [Kelp]</p> <p>Hybridization and Breeding of Kelp, especially <i>Macrocystis</i>. Experimental Design Notes, 1977 - 1978 [4 folders]</p> <p>Development of a U.S. Source of Agar. Data Book, 1982 - 1983</p>

Box	Folder Title
112	<p>[Chinese Marine Centers, 1988] [2 folders]</p> <p>Photos of South China Sea Fisheries Research Institute, Chinese Academy Fishery Science</p> <p>Duan, Liu</p> <p>U.S./People's Republic of China Marine and Fisheries Cooperation. Ninth Working Group Meeting, Washington, D.C., 21 October - 2 November 1989</p> <p>Kelp Growth [Kelp Research Files]</p>
113	<p>Kelp Growth [Kelp Research Files]</p> <p>Macrocystis - Bed Description: Paradise Cove, California [3 folders]</p> <p>Macrocystis – Bibliography [Kelp Research Files]</p> <p>Kelp - Wound Reactions</p> <p>Harger, Bruce W.W. - Harvest 12-79 Photos [21 folders]</p> <p>Dups 35727 (Group Photos)</p> <p>Card File [3 pack business cards]</p>
114	<p>Lammar BL in Tunnel, 26-27 March 1976</p> <p>Water Tunnel - Macro, 9 March 1976</p> <p>Phytoplankton, 1974 - 1975</p> <p>35 mm negatives, untitled</p>
115	<p>Miles Anderson, 1978-1979</p> <p>Miles Anderson</p> <p>[Correspondence 1987]</p> <p>[Santa Barbara Physical Disk Files]</p> <p>Data Notebook, Experiments #1 - 31</p>

Box	Folder Title
115	[Untitled]
116	<p>Roscoff Marine Laboratory</p> <p>Correspondence, 1985</p> <p>Wheeler, William N., "Ecophysiological Studies on the Giant Kelp, <i>Macrocystis</i>: I - Photosynthetic Adaptations"</p> <p>[Aid Draft Proposal]</p> <p>Phycol. Soc. Am</p> <p>History of phycology, Phycological exploration - Phycologists</p> <p>Departmental Proposals - Space, Equipment, etc. 1987</p> <p>"Rigs to Reefs" Program, 1985</p> <p>Nori Aquaculture</p> <p>Brown Algal Cell Walls</p> <p>Correspondence, 1984</p> <p>Neushul Mariculture, Inc – Confidentiality Agreements</p> <p>Wall Structure – Brown Algae</p> <p>Phycology Seminar 595I, 1984-1987</p> <p>Untitled</p>
117	<p>Untitled Photographs and Negatives</p> <p><i>Macrocystis</i> - Taxonomy</p> <p>Marine Plant Pathology</p> <p>Zonaria - Apical Cells</p> <p>Zonaria - Cytochemistry Techniques</p> <p>Zonaria - Electron Microscopy Techniques</p>

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Folder Title

Zonaria - Field Observations

Zonaria - General Morphology

Zonaria - Growth

Zonaria - Oogonia

Zonaria - Papers in Press

Zonaria - Periodicity

Sciadophycus

Gelidium (Silverthorne)

Agar Producers

Fertilization – red algae

118

Red Algae – Miscellaneous and Fertilization

Bibliographies

Culture Media & Techniques [2 folders]

Mariculture – Fuels from Biomass

Mariculture Supplies

Cambridge II

Seaweed Recipes

Oil Pollution – seeps, historical

Electron Microscope IA, 1968-1970

[Sporogenesis, Photographs, 1969]

Electron Microscopy, 1968-1969

Electron Microscopy – Siemens 101, 1970

Box	Folder Title
118	Electron Microscope Studies – Cambridge 1974-1975
119	Electron Microscope Studies – Cambridge 1974-1975 [3 folders]
	Electron Microscope Studies – Zurich , 1969-1970 [3 folders]
	101-2037 – 101-2044
	101-2701 - 101-2718
	101-2732 - 101-2969
	101-3013 - 101-3032
	101-3113 - 101-3134
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	2111 - 2384
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	2823 - 2984
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	3101 - 3112
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120	3855 - 3884
	3901 - 3984
	4001 - 4078
	4125 - 4142
	4168 - 4242
	4252 - 4360
	4360 - 4372
	4479 - 4505
	[Freeze Fracture Techniques] [2 folders]
	Freeze Etch [Reprints]
	EM Fixation Information, Freeze Etching
	Freeze Etch / Ultrastructure
	UCSB Ultrastructure Research, Freeze-Etching, 1980
	R. Fetter Freeze Etching, 1981
	Freeze Etching, M. Neushul – Marine Biology (Marine Lab), Rick’s Research Slides, Negatives of Grids
121	Sea Grant College Legislation
	Societies – historical
	1978 Proposal – Original Copy “Open Sea Energy Farming”
	U.S. – Japan Program, Post-1977 correspondence
	U.S. – Japan Program, Brochures, news clipping, NSF info, Notes
	U.S. – Japan Program, Guidelines for submitting visiting, Scientist proposals & cooperative research

Box	Folder Title
121	U.S. – Japan Program, NSF Summary (Washington, D.C. – 1965)
	U.S. – Japan Program, “Report entitled: “March Biology – A Research Program Under U.S. – Japan Cooperative
	U.S. – Japan Program, “Correspondence”
122	People [3 folders]
	Reprint System – unisort cards
	Personal Organization Diary [2 folders]
	Micronesia
	[UCSB Graduate Student Advisors Handbook]
	[X.G. Fei] Abstracts
	Coal Oil Point Committee
	Channel Island Committee
	Conflict of Interest
	Exxon Education Foundation
	Kellogg Foundation
	Tinker Foundation [2 folders]
123	Funding Search Whitehall Foundation
	Sabbatical Leave
	Academic – Sabbatical Application 1979
	Charters, A.C. and S. Miles Anderson, “A Low Velocity Water Tunnel for Biological Research” (to <i>Journal of Hydronautics</i>)
	Office of Technology Assessment
	Dr. Neushul Bio. Bib. [4 folders]

Box
123

Folder Title
Academic Record

Academic – 1958 to 1963, University of Washington

Academic – 1963 to 1969, University of California – Santa Barbara

Academic – Undergrad – Graduate

Academic – 1979 to 19, University of California Santa Barbara

Red Algal Eicosanoids

124

Sciadophycus

Workshop

History, UCSB Marine Science Institute

The Introduction of Marine Plants

Zonaria

AS Notes

Worksheets

Medical / Immunology

Molecule

[Outline, Biology 25]

Final [Biology 25, Winter 1990]

Midterm [Biology 25]

[Marine Biology 25, 1988] Final, Student Papers [2 folders]

[Bio 25]

Genetics

Bio 25 Genetic DNA

Box	Folder Title
124	Chem
125	Gen
	Biology 25 [Mariculture Lab Development]
	Biology 25 [Species ID Keys]
	Biology 25 Herbarium Supplies
	Invertebrates of Naples Reef
	[Bio 25 Lecture Notes] [4 folders]
	Stastics
126	Computer Analysis for BioSci
	UCSB Voltage Offset Circuit
	HP 9800
	Data Logger UCSB – Made
	Diving Equipment and Instruction
	Field Equipment, miscellaneous
	Diffusion Capsules
	Aquasonics Purchase
	Antarctic Algal Reproduction Paper
	Argentine Expedition photographs, 1958
	Paraffin samples - Phyllogigas (Esperanza)
	Paraffin samples - Iscoseira, Series II, 51
	Paraffin Samples – Fucus Furcatus (Newport R.I.), Ligustrum Leaf, October 1954
	Paraffin samples – Phaeurus

Box	Folder Title
126	<p>Paraffin samples - Ricinus Stem, Lycopersicum leaf, October 1954</p> <p>Paraffin samples - Fern Sporangia, Hesperoficus (Salix), Stem, Bud, Flower Primordia, October 1954</p> <p>Paraffin samples - Fucus Furcatus (Newport, R.I.), Ligustrum Leaf, October 1954</p>
127	<p>Paraffin samples - Hybrids #1 and #2</p> <p>Paraffin samples - Sargassum (Cape Hatteras), Oleander Leaf (Corona del mar), October 1954</p> <p>Paraffin samples - Zea Stem, Ficus Leaf, October 1954</p> <p>Paraffin samples - Hybrid #3, Wheeler's plants</p> <p>Hybrid Kelp Sporangia, Dave Walker's Slides</p> <p>Exposed <i>Ectocarpus</i> cytology plates, E-14</p> <p>35mm negatives - Puerto Deseado, December 1960</p> <p>35mm negatives - Photos of Boat, etcetera, November 1962</p> <p>Gametophytes - Photomicrographs, July 1958</p> <p>Sporophytes from Tank Scrapings [2]</p> <p>Chile, etc.</p> <p>Thesis - Lab Photos - Branching Grazing Damage and Young Plant Growth Pictures, February 1958</p> <p>Untitled negatives</p> <p>Negatives - Seasonal Distribution of Growth Experiments in the Sea</p> <p>Negatives - Plant II-4 Stife and Area Growth</p> <p>[Antartic Marine Algae, Argentine Antarctic Expedition 1957-1958 (label)]</p> <p>35mm negatives - Bergen, Norway, by Mr. Peterson</p>

Box	Folder Title
127	Negatives - Experiment 70, 1963
128	Academic – 1970 to 1979, University of California – Santa Barbara
	[UCSB]
	Sabbatical leaves
	Current Correspondence, 1977-1979
	Current Correspondence, 1981-1983
	Current Correspondence, 1981-1986
	Current Correspondence, 1983-1985
	Current Correspondence, 1986
	Correspondence: National Science Foundation 1979-1982
	Neushul, Michael, 1983 Letters, August – December
	Bio-Energy Congress, Atlanta – April 1980
	Bio-Energy Council Meeting – April 1979
	Correspondence, Guam Meetings
129	Guam – Notes, schedule of conference
	Guam – Papers presented
	Editorial Board – <i>Journal of Phycology</i>
	Korea [Rok-US Advisory Meeting on Marine Biology] [2 folders]
	Korea – Work Plan
	Korea – National Science Foundation - U.S. and Korea Opportunities for Collaboration Between Scientists (Guidelines)
	Korea – Correspondence
	Korea

Box	Folder Title
129	Institute for Island Research and Assistance
	Tahiti Conference, May 1979
	Director's Office, SIO 1967, Subcontract, The Regents of the University of California and Global Marine, Inc.
	Qiam. Miscellaneous [2 folders]
130	Qiam. Miscellaneous [2 folders]
	Bio 25 [2 folders]
	Dev
	Photography Microscopic [2 folders]
131	Photography – cameras, darkroom equipment
	Photography – supplies – (film development records)
	Camera (Nikon E12 Black)
	Inventory 1974-1975
	Equipment – Inventories, Combination Locks
	Loans
	Adhesives (Bostik)
	Aluminum Davit
	Aquarium Air Pump (Metaframe)
	Balance (Mettler)
	Balance (Torbal)
	Battery Box From Scripps
	B.C. (Seatec)
	Bearings (Barden Corp)

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Folder Title
Blender (Hamilton Beach)

Calculator (Monroe)

Centrifuge (Ivan Sorvall)

Cold Rooms – Culture, Incubators

Cremona String

Compressor (Mako – Scuba)

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Coulometers

Current Meter F584 (Weather Measure Corporation) [2 folders]

Dictaphone (Craig 2072)

Digital Volt Meter (Hewlett Packard)

Digitizer Software Information - Graphics, Statistics

Drafting Machine (K & E)

Equipment Rental Catalogs

Flowmeter (General Oceanics)

Heat Gun (Master)

Incubator (Precision Scientific)

Keys and Combinations

Labeling Kit (3M)

Manometer Calibrator (Warburg)

Nylon Screen/Net

Minipet Puppets

Miniature Recorders (Rustrak)

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132	pH Meters (Zeromatic) Quantum Radiometer/Photometer - LI-185 Radiant Wall Ovens (Lab-Line Instruments) Radiometer (YSI) Refrigeration Equipment and Techniques
133	Regulators Safety Sentry (Ground Fault Circuit Interrupter) Servo Recorder (Heathkit) Shaker Power Unit (Eberbach) Spectronic 70 Spectrophotometer (Bausch & Lomb) Spectroradiometer Bibliography card file
134	Neushul Mariculture, Inc., Organization of Files by Division Biological Oceanography, 1957 Hydrodynamic Research [Checklist of Oceanographic Voyages] [Hydroponic Culture] Tahiti Pond Aquaculture [Reprint] Plant Anatomy, A Collection of Laboratory Observations, Botany 111, January 1954 [Student Records, Zoology UCLA] [Student Records, Paleontology 101, UCLA 1955]

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[Student Records, Invertebrate Zoology 1A, UCLA, 1954]

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Botany 171, Developmental Phycology, March 1971

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Smith, Gary, "The Intertidal Algal Distribution of the East and West

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Newport Harbor Breakwaters," Phycology 170, Fall 1966

Olsen, David A., "Growth and Maintenance of Form in *Halymenia* Proliferations," 19 January 1966

Meek, Robert, "Growth Rate, Morphological Change, and Cellular Structure in Three Phyla of Algae (Algal Growth in the Sea)," 1966

Hardy, John, "Studies on Dessication of Two Intertidal Algal Species--*Porphyra perforata* and *Pelvetia fastigiata*," Botany 170, 3 December 1966

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Divens, "Influencing Factors of the High Intertidal," 1967

Marvel, Ken, "Project Report: Guide to the Identification and Distribution of the Genus *Corallina* Along Pacific North America," Botany 170, n.d.

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McCarey, William and Linda Hendrian, "An Analysis of Orthophosphate in *Bryopsis* in Relation to Phosphorus Concentration in the Medium"

Mueller, Dona, "The Effect of Water Velocity on Growth Rate and Morphology in *Macrocystis*"

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Kelp [Botany 170]

Greenhouse Experiments, 197-1980

Macrocystis Insult Experiment, 11 April 1980

Remote Sensing

Box	Folder Title
136	Marine Farm Engineering [5 folders]
	Eumig Nautica
	Neushul, Stephen, "An Experimental Study of Hydrofoil Produced Breaking Waves," n.d.
137	Soft Corals
	California's Paralytic Shellfish Poisoning Prevention Program, 1927-1989 [2 folders]
	<i>Eisenia</i>
	<i>Ectocarpus</i>
	<i>Eucheuma</i>
	Kelp Growth Regulators
	Polarity in Fucus
	Shigekawa, Katherine, "Polarity and Development in Fucaceous Algae,"
	Melo, R.A., B.W.W. Harger and M. Neushul, "Gelidium Cultivation in the Sea," 1990 – 1991 [Gelidium Manuscript] [2 folders]
	<i>Gelidium</i> , National Science Foundation Final Report and Pro-Forma Figures
	<i>Gelidium</i>
	[Michael Franklin]
	[Botany 112L]
	[Bio 25 Lecture Notes]
	Lab Exercises
	California Cooperative Oceanic Fisheries Investigations Reports, October 1988
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Box	Folder Title
137	Journal of Shellfish Research, December 1988
R	Untitled
	Untitled
138	Inverted Research Phase Microscopes, Series PH-MIC/PH-BMIC
	Biology 194/595I
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	Botany 595I – Spring 1979
	Algal Life Histories (Models)
139	Pigments and Photosynthesis
	Untitled
	Cell
	Lab Safety
	1972-73
	1971 B. – Knell & Release
	1971 A
	1970
	1969 A
	1969 B
	1968 B Scott Foresman Contract & Programs
	1968 A First Scott Foresman Contact – Addison Wesley Contract
	1967 B
	1967 A

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139	1966
	1965
	People & Miscellaneous – Text
	Correspondence 1985
140	T.C. Fang
	Filter Funnels
	94 th Congress 2d Session – H.R. 149695
	Botany 170, 1977-78
	World Mariculture Society, January 9-13, 1983, “Test Farming of the Giant Kelp <i>Macrocystis</i> as a Marine Biomass Producer,” Harger and Neushul
	Lecture #16 – Botany 25, Fish and Fisheries
	Scott Foresman Dispute
	[VW Microbus, 1970]
	Correspondence 1981
	John Sink
	Correspondence 1982
	Correspondence, 1961-1968
	Correspondence, 1983
	[Neushul Family] Letters to Home [from] Europe, 1959-1960
	Correspondence, 1985
141	Correspondence, 1974
	Susan Neushul, Student Papers

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141	Carrageenan / AIDS
	Mariculture #1 – Introduction, Food Chains, P.S.P.
	Mariculture #2 - Microalgal Habitats and Ecology
142	Mariculture #3 – Seaweed Symposium
	Mariculture #4 – Kelps
	Mariculture #5 - Hydrodynamics
	Mariculture #6 – Tropical Eucheuma
	Botany 170/270 – Lecture 5
	The Eucaryotic and Procaryotic Cell
143	Botany 170/270 – Lecture #7
	Botany 170/270 – Lecture #8
	Botany 170/270 – Lecture #9, Microalgae, Algae Adaptations to Aquatic Habitats, Dinoflagellates and Cryptomonads, 1992
	Botany 170/270 – Lecture #10, Chrysophyta I, Golden-Brown Algae I, 1992
	Botany 170/270 – Lecture #11, Chrysophyta II, Golden-Brown Algae II, 1992
	Botany 170/270 – Lecture #11, Genetics and Reproduction
	Botany 170/270 – Lecture #12, Green Algae I, Green Algal Diversity and Evolution
	Botany 170/270 – Lecture #14, Euglenids and Charophytes, 1992
144	Botany 170/270 – Lecture #14, Dinoflagellates and Cryptophyceans
	Botany 170/270 – Lecture #14-15, The Green Algae
	Botany 170/270 – Lecture #15, Algal Ecology I, 1992

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144	<p>Piedras Blancas</p> <p>Botany 170/270 = Keys to Diatoms, Dinoflagellater, Red and Brown Algae with Disks of the Text</p> <p>Submarine Light (Duplication in Lab), Field Work (Brick Line Data)</p> <p>Duplication of environment – greenhouse, wet lab</p> <p>P.O.P. Study, February 1968, Richard M. Zingmark</p> <p>Algal form and function – vegetation structure [2 folders]</p>
145	<p>South American and Antarctica Travel Information</p> <p>Balloon - Remote Sensing Studies</p> <p>Channel Islands [2 folders]</p> <p>Ecological Theory [2 folders]</p> <p>South American and Anartica algae - identification</p> <p>Sediment Trap</p> <p>Submarine Transects - Baja California</p> <p>Submarine Transects - Bibliography</p> <p>Submarine Transects - Israel</p> <p>Submarine Transects - Miscellaneous</p>
146	<p>Submarine Transects - Western Washington [4 folders]</p> <p>Growth Experiment - <i>Sciadophycus</i>, <i>Halymenia</i>, <i>Dictyopteris</i> Tank Culture</p> <p>Temperatures – La Jolla, Paradise, Turtle Bay</p> <p>Zooplankton – Santa Barbara Channel, Laurence H. Field</p> <p>Research – Student Project – Kelp Galls, Paula Busse</p>

Box

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Folder Title

Michael Neushul Paper, "Temperatures – La Jolla Paradise, Turtle Bay"

147

Dawson, Neushul, and Wildman, "Seaweeds associated with kelp beds along southern California and NW Mexico," n.d.

#29. Neushul, M. And A.L. Dahl," Composition and growth of subtidal parvosilvosa from Californian kelp forests," *Helgolander Wissenschaftliche Meeresuntersuchungen* 15 (1-4): 480-488 (1967).

#30. Neushul, M. J. Scott, A.L. Dahl, and D. Olsen," Growth and development of *Sciadophycus stellatus* Dawson," *Bulletin of the Southern California Academy of Sciences* 66 (3): 195-200 (1967).

#70. Neushul, M. And A.L. Dahl, "Zonation in the apical cell of *Zonaria*," *American Journal of Botany* 59 (4): 393-400 (1972).

#72. Charters, A.C. M. Neushul, and D. Coon, "The effect of water motion on algal spore adhesion," *Limnology and Oceanography* 18(6): 884-896 (1973).

#63. Hess, W.M., R.L. Bair, and M. Neushul, "Production and cleaning of freeze-etch replicas which show complementary surfaces of fractured fungus spores and hypae," *Stain Technology* 47 (5): 249-255 (1972).

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Chrysochromulina Figures

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3. Photomicographs and Close-ups

4. Untitled

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150	Surg. Scope and U/W Platform Shots Chronologically Ordered
	Untitled Slides
151	Kelp Harvests
	Minidisks – W.M.S.
	Minidisk – Immunology Neushul
	Minidisk – Untitled
	Minidisk – MDOS / CPM /CCA
152	1955
	1956
153	Brown Island. Sub. Veg. Western Washington, 1967
154	Neushul Card Files, Bibliography, Index
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158	O #55, Neushul M., “Uniformity of thylakoid structure in a red, two blue-green and a brown algae,” <i>J. Ultrastructure. Research</i> , 37: 532-543 (1971)
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158	O
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	Phycology Text – Possible Photos
	Fetter and Neushul, Red Algal Fertilization
	Kelp Growth Figures, Illustrations
	Kelp Development – Normal and Abnormal
	Functional Interpretation of Morphology from Readings in Phycology
	Readings in Phycology – Functional Interpretation
159	O
	Plocamium Pacificum, photo
	Chapter 18 – Plant Growth and Development
	Chapter 8 – Red Algae and Flagellates
	Chapter 11 – Green Algae
	Chapter 12 – Liverworts, Mosses, and Hornworts
	Chapter 6 – Cellular Diversity and Plant Classification
	Neushul, Figure 2-17
	Neushul, Figure 7.5
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160	O	Chapter 20, Planets, Plants and Ecosystems
		Chapter 21, Plants and Man
		Chapter 19, The Environment and Plant Response
		Chapter 9, Fungi
		Chapter 15, Ferns and Seed Ferns
		Chapter 1, The Classification of Plants
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		Sexual Fusion, Meiosis
		Neushul Plants
161	O	Figure 4-8A
		Figure 13-16
		Figure 4-5
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		Figure 4-8C
		Figure 4-8D
		Figure 4-8E
		Figure 4-8F
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		Figure 5-1
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		Figure 5-2
		Figure 5-3
		Figure 5-3
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		Figure 5-11

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		Figure 9-12
		Figure 10-6A
		Figure 10-7
		Untitled
		Untitled
		Untitled
		Untitled
		Untitled
		#6
		<i>Zonaria</i> , x7, post 71,
		<i>Zonaria</i> , x6, post 61
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Figure 17-2

Figure 17-11

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Figure 2-5

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Figure 2-15C

Figure 2-9

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MEDIA ITEMS IN NEUSHUL 97-21

Brain Turkish Floor Scope
 October 19, 1979
 Audiocassette

W. Clark and Neushul Recorded Dive
 April 1-2, 1965
 3-inch open reel audiotape

Antarctic
 Unknown date
 16mm film, color, silent

Fucales Fertilization: Sperm-Egg
 Unknown date
 16mm film

Box	Folder Title
	The Macrocystis Forest, Anacapa Island, California Unknown date 16mm film, color, sound, 400 ft.
	Algae – Sea Plant data Unknown date Beta cam videocassette
	Data – Plant I – 90% Unknown date Beta cam videocassette
	Demo Tape (no. 0-155) January 4, 1977 Beta cam videocassette
	Neushul image analyzer tape (Sea Algae) April 22, 1982 Beta cam videocassette
	No.4 April 22, 1982 Umatic videocassette
	Botany 171 – Class Projects – Winter 1982 1982 Beta cam videocassette
	No.2 Unknown date Beta cam videocassette