

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 1	<p>Folder Title 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	<p>Journal 1989</p> <p>Journal 1990</p>
3	<p>Journal 1991</p> <p>Journal 1992</p> <p>Journal 1993</p> <p>Botany 170 1992</p> <p>Correspondence, 1992</p>
4	<p>Correspondence, 1992</p> <p>Correspondence, 1992</p>

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]

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

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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	Folder Title
30	(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]
	<i>Glaucozystis</i>
	photographs, n.d
	Freeze Etching Electron Micrographs [Unidentified]
	<i>Cryptomonas</i>
31	Freeze Etching Electron Micrographs [<i>Chrysochromulina</i>]
	Colonic Musosa
	<i>Porphyra</i>
	Section in Meristem
	Yeast
	<i>Peridinium</i>
	<i>Pyramimonas</i>
	<i>Prorocentrum</i>
	Photosynthetic Unit
	Unidentified [3 folders]

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

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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

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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]

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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]

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[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

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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

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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	Harger, Bruce W.W. - Transcript, Ph.D. Info and Correspondence
R	Harger, Bruce W.W. - Letters of Recommendation, Correspondence, Curriculum Vitae

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]

[Feinbert, Daniel A., "Fuel Production Options from Aquatic Species: Technical and Economic Considerations," n.d.]

[Biology 149/249, Mariculture, Final Report to Learning Resources, Mariculture Laboratory Development, 1985 0 1987, 12 August 1987]

[Biology 149/249 Reprints]

[Biology 149/249 – Lecture notes and Teaching Materials] [2 folders]

[Biology 149/249 – Transparencies]

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

[Rochefort, 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]

[Coal Oil Point: A Study of a Natural, Intertidal "Oil Pollution Laboratory" [class report], 7 March 1974]

61

Pollination Seminar, 1977

Botany 170 - Fall 1981, 1982, 1984

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

Box
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“The Domestication and Cultivation of Californian Macro-algae”

“The Effects of Pollution on Populations of Intertidal and Subtidal Organisms in Southern California”

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Reprints

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Neushul, Michael and A.L. Dahl, “Zonation in the Apical Cell of *Zonaria*,” 1972

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

R Dean, Alan C., *Phycology*

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R Untitled

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
	Nutrient Uptake
	Tripodi, Giacomo, "Ultrastructural Changes during Germ Cell Formation in the Red Alga <i>Polysiphonia</i> ." Tripodi on <i>Polysiphonia</i> and <i>Pterosiphonia</i> , unpublished manuscript, n.d.
	[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
	Zingmark, Richard G. - Photographs, <i>Gonyaulax</i> EM
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	[Reprints]
	Matsumoto, 1959
78	Morgan, James J. And Wheeler J. North, "Marine Biomass Program (Yield and Biological Studies," 1981
	[Sandra, Alexander, Myron A. Leon and Ronald J. Przybylski, "Suppression of Myoblast Fusion by Concanavain A: Possible Involvement of Membrane Fluidity," 1977]
	[Tianjing, Liu, et al, "Studies on the Artificial Cultivation and Propagation of Giant Kelp (<i>Macrocystis pyrifera</i>), n.d.]
	[Sears, D.W. and M. Neushul, "Freeze-Fracture Studies of the Mechanism of Cytotoxic Cell-Mediated Cancer Cell Killing" n.d.]

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[Gibor, Aharon and Michael Neushul, "Generation of New Algal Strains for Expanding the Boundaries of Marine Farming in China and the U.S.," 1989]

["A Study for the Potential for Low-/Cost Agrichemical Production from Kelps through Monoclonal Gametophytic Selection and Sporophytic Production," 1987, Proposal]

[Botany 170/270 Lecture 6: Procaryotic and Eucaryotic Algae]

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Southern California Bight Kelp Bed Overview, 1981

79

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First Quarterly Report, 1 April - 30 June 1982

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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

NSF Quarterly Reports, The Development of a U.S. Source of Agar
Fourth Quarterly Report, 1 January - 31 March 1983

NSF Quarterly Reports, The Development of a U.S. Source of Agar
Fifth Quarterly Report, 1 April - 30 June 1983

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

Agar March 1983

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

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80

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

Box
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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

89

The Kelp Plant

Kuga, Virginia A. And Michael Neushul, "The Ontogeny of an Abnormal Specimen of *Macrocystis angustifolia* Bory (Phaeophyta)." Two-Headed Plant Paper [2 folders]

Hamada, Akira, Masura Honya, and Satoru Kurita, "Cultivation of Seaweed as Resources." Japan - Kelp Cultivation

Barratt, Mary and George Hunt, "Avian Use of Kelp Beds at Santa Barbara Island." Kelp and Birds,

North, Wheeler J., "A General Description of *Macrocystis*," Kelp Composition, 1978

Nyman, Melvin A., et al, "*Macrocystis pyrifera* in New Zealand: Testing two Mathematical Models for Whole Plant Growth," 1990

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
	Kelp Bed Management
	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
	Correspondence, 1985-1989
	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	<p data-bbox="472 268 1443 336">Neushul, Stephen, "An Expanded Bed, Attached-Film, Anaerobic Digester Designed to Reduce Marine Biomass to Methane"</p> <p data-bbox="472 373 682 409">Botany 170/270</p> <p data-bbox="472 447 617 483">Biology 25</p> <p data-bbox="472 520 1323 556">Bushing, William W., Dissertation Outline - Remote Sensing, n.d.</p> <p data-bbox="472 594 876 630">Botany 170/270 Lectures Notes</p>
93	<p data-bbox="472 667 1443 703">Lecture 8: Red Algal Structure and Function and Evolution [2 folders]</p> <p data-bbox="472 741 998 777">Botany 170/270 – Phycology Lecture #4</p> <p data-bbox="472 814 917 850">Lecture #3: Brown Algal Diversity</p> <p data-bbox="472 888 722 924">Botany 170 – 1976</p> <p data-bbox="472 961 706 997">Bio 149/249 - #20</p> <p data-bbox="472 1035 665 1071">Demethylation</p> <p data-bbox="472 1108 682 1144">Piedras Blancas</p> <p data-bbox="472 1182 803 1218">Botany 170 – Final Exam</p>
94	<p data-bbox="472 1255 1443 1365">"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</p> <p data-bbox="472 1402 1299 1470">Harger, B.W.W., "The Isolation of Cytotoxic Natural Killer Cell Receptors," SBIR NIH – Cell Receptors 1985</p> <p data-bbox="472 1507 763 1543">Correspondence, 1990</p> <p data-bbox="472 1581 1023 1617">Biology 25 – Lectures 9-20, 1990 Animals</p> <p data-bbox="472 1654 617 1690">Kelp Maps</p> <p data-bbox="472 1728 803 1764"><i>Dictyopteris efforis</i>, 1965</p> <p data-bbox="472 1801 673 1837">Dictyota Sperm</p>

Box	Folder Title
94	Botany 171
	Neushul, Michael and E.Y. Chi, "Wall Structure and Cell Specialization in Brown Algae," 1972
	Neushul, Michael and Northcote, D.H., "A Complimentary Freeze-Fracture Study of <i>Chrysochromulina chiton</i> " 1975
95	Neushul, Michael and Northcote, D.H., "A Freeze-Fracture Study of the Role of Membranes in the Synthesis of Scales and Periplast Plates in <i>Chrysochromulina</i> and <i>Cryptomonas</i> ," 1975
	[Zeiss Compound Microscope]
	Untitled [2 folders]
	<i>Gracilaria</i> carpospore release, 6 May 1978
	Fetter, Richard – Marine Science Institute
	[Reprints] [2 folders]
	[Fetter, Richard Doty, "Spermatium Transfer in the Red Alga, <i>Tiffaniella snyderae</i> " n.d.]
	Nutrient Notebook, Virginia Kuga, Marine Lab #1, 1 March 1978 - 29 November 1978
96	Nutrient Notebook, Virginia Kuga, Marine Lab #2, 1 December 1978 - 22 February 1980
	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

Box	Folder Title
99	Spanish Correspondence
	Grant Projects and Procedures Correspondence, 1968
100	Correspondence, 1980
	Correspondence to September 1964
	Correspondence, 1966
	Correspondence, 1965
	Home Budget - 1960 - 1961
	Home Budget - 1966 – 1970
	Plant Physiology, UCLA, 1954
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	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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102	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
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	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] <i>Dictopteris</i>
	[Photographs] <i>Dictyota</i>
	[Photographs] <i>Eisenia</i>
	[Photographs] <i>Euchema</i>
	[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

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Zonaria - Tetraspore Growth

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106	Antarctic - Identification
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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]
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	June-July 1968 [Teaching Files] [3 folders]
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	Plant Physiology Seminar – 194-294N – Teaching Files] [2 folders]
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110	Neushul, Michael and David Coon, Research 1969 - 1976, with Final Report to the NSF [National Science Foundation]
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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>

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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>

Box
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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

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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
	2019 - 2029
	2111 - 2384
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	2823 - 2984
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	3219 - 3501
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120	3855 - 3884
	3901 - 3984
	4001 - 4078
	4125 - 4142
	4168 - 4242
	4252 - 4360
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	1978 Proposal – Original Copy “Open Sea Energy Farming”
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	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
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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

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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>

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127	Negatives - Experiment 70, 1963
128	Academic – 1970 to 1979, University of California – Santa Barbara
	[UCSB]
	Sabbatical leaves
	Current Correspondence, 1977-1979
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	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

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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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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

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Greenhouse Experiments, 197-1980

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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>
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	Kelp Growth Regulators
	Polarity in Fucus
	Shigekawa, Katherine, "Polarity and Development in Fucaceous Algae,"
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137	Journal of Shellfish Research, December 1988
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138	Inverted Research Phase Microscopes, Series PH-MIC/PH-BMIC
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139	Pigments and Photosynthesis
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	1972-73
	1971 B. – Knell & Release
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	1968 A First Scott Foresman Contact – Addison Wesley Contract
	1967 B
	1967 A

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139	1966
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	People & Miscellaneous – Text
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140	T.C. Fang
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	Scott Foresman Dispute
	[VW Microbus, 1970]
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	[Neushul Family] Letters to Home [from] Europe, 1959-1960
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141	Correspondence, 1974
	Susan Neushul, Student Papers

Box	Folder Title
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

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

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146	Michael Neushul Paper, "Temperatures – La Jolla Paradise, Turtle Bay"
147	<p>Dawson, Neushul, and Wildman, "Seaweeds associated with kelp beds along southern California and NW Mexico," n.d.</p> <p>#29. Neushul, M. And A.L. Dahl," Composition and growth of subtidal parvosilvosa from Californian kelp forests," <i>Helgolander Wissenschaftliche Meeresuntersuchungen</i> 15 (1-4): 480-488 (1967).</p> <p>#30. Neushul, M. J. Scott, A.L. Dahl, and D. Olsen," Growth and development of <i>Sciadophycus stellatus</i> Dawson," <i>Bulletin of the Southern California Academy of Sciences</i> 66 (3): 195-200 (1967).</p> <p>#70. Neushul, M. And A.L. Dahl, "Zonation in the apical cell of <i>Zonaria</i>," <i>American Journal of Botany</i> 59 (4): 393-400 (1972).</p> <p>#72. Charters, A.C. M. Neushul, and D. Coon, "The effect of water motion on algal spore adhesion," <i>Limnology and Oceanography</i> 18(6): 884-896 (1973).</p> <p>#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," <i>Stain Technology</i> 47 (5): 249-255 (1972).</p> <p>#59. Charters, A.C., M. Neushul and D. Coon, "The effects of water motion an algal spore attachment," <i>ISS</i>, 7th, Japan: 243-247 (1972).</p> <p>#62. Foster, M., M. Neushul and E.Y. Chi,"Growth and reproduction of <i>Dictyota binghamiae</i>," <i>J. G. Agardh. Botanica Marina</i> 15: 96-101 (1972).</p> <p>#24. Dawson, E.Y. and M. Neushul, "New records of marine algae from Anacapa Island, California," <i>Nova Hedwigia</i> 12 (½): 173-187 (1966).</p> <p>#54, Neushul, M, "Submarine illumination in <i>Macrocystis</i> beds. Biology of Californian Kelp Beds," edited by W.J. North. <i>Nova Hedwigia</i> 32: 241-254 (1971)</p> <p>#52. Neushul, M. "<i>Macrocystis</i> and related kelps." <i>Biology of Californian Kelp Beds</i>, Ed. W.J. North. <i>Nova Hedwigia</i> 32: 223-228 (1971).</p> <p>#66. Neushul, M. "Underwater microscopy with an encased incident-light dipping cone microscope," <i>Journal of Microscopy</i> 95 (3): 421-424 (1972). To Illustration File.</p>

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Figure 16-17, *Lordaites*

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L and O Paper, "Effects of Water Motion on Algal Spore Adhesion"

Figures for Plate Paper (Bibliography)

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
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154	Neushul Card Files, Bibliography, Index
155	Neushul Card Files
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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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	Porphyridium Ultrastructure
	Flora of Coal Oil Point, Figures and Text
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158	O
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	Dictyopteris Micrographs, 1966
	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
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	Neushul, Figure 10-4
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159	O	Neushul, Figure 13-12
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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		Learning and Behavior in Octopus
		Sexual Fusion, Meiosis
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161	O	Figure 4-8A
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161	O	Figure 4-8B
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		Figure 5-1
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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
		<i>Zonaria</i>
		Corrections
		Foster, M
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161 O	<p>Korea Paper (in Press)</p> <p>Coon, D., "The Measurement of Harvest and Unharvested Populations of Marine crop Plant <i>Macrocystis</i></p> <p>Figure 17-13</p> <p>Figure 17-23A</p> <p>Schmitt, page 4</p> <p>Photo for 2-16</p> <p>Schmitt, page 9</p> <p>Photo for 4-10</p> <p>Schmitt, page 19</p> <p>chmitt, page 25</p> <p>Figure 13-18</p> <p>Figure 18-11</p> <p>Figure 16-10B</p> <p>Figure 16-20</p> <p>Figure 17-7</p> <p>Figure 17-2</p> <p>Figure 17-11</p> <p>Figure 13-17</p>
162 O	<p>Figure 2-5</p> <p>Figure 14-9</p> <p>Figure 2-15C</p> <p>Figure 2-9</p>

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162	O	<p>Neushul, M., "The distribution of Antarctic benthic marine algae," <i>American Geographical Society</i>, Folio Series: 9-21 (1968)</p> <p>#22. Neushul, M., "Scuba diving studies of the vertical distribution of benthic marine plants," <i>Botanica Gothoburgensis</i> 3: 161-176 (1965)</p> <p>#69. Neushul, M. And A.L. Dahl, "Ultrastructural studies of brown algal nuclei," <i>American Journal of Botany</i> 59 (4): 401-410 (1972)</p> <p>#68. Neushul, M., D. Coon and A.C. Charters, "Direct obs. of algal spores under natural conditions," [<i>International Seaweed Symposium?</i>] ISS 7th: 231-236 (Japan, 1971)</p> <p>#53. Neushul, M., "The species of <i>Macrocystis</i> with particular reference to those of North and South America," W.?. North, ed., <i>Biology of California Kelp Beds</i> (Nova Hedwigia 32, 1970)</p> <p>#43. Neushul, M., "A freeze etching study of the red alga <i>Porphyridium</i>," <i>American Journal of Botany</i> 57 (10): 1231-1239 (1970)</p> <p>#39. Charters, A.C., M. Neushul, and C. Barilotti, "The functional morphology of <i>Eisenia arborea</i>," <i>International Seaweed Symposium</i>, 6th: 89-105 (Spain, 1968)</p> <p>35. Neushul, M. And L. Liddle, "A light and electron microscopic study of primary heterogeneity in the eggs of two brown algae," <i>American Journal of Botany</i> 55 (9): 1068-1073 (1968)</p> <p>#28. Neushul, M. W.D. Clarke and D.W. Brown, "Subtidal plant and animal communities of the Southern California isl," <i>Sym. SB Bot. Garden</i>: 37-55 (1967)</p>
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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