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A DIRECTORY
TO
MARINE LABORATORIES
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A DIRECTORY
TO
MARINE LABORATORIES OF THE UNITED STATES AND CANADA

by

Robert W. Hiatt

During a recent tour of the coasts of the United States and Southern Canada for the purpose of becoming acquainted with the physical plants, personnel, teaching programs and research projects of the various marine laboratories, I became aware of a need for some published information on these important institutions of marine science in North America. In preparing this directory to the marine laboratories of the United States and Canada I have attempted to set forth in a concise fashion the type of information which should be available to marine scientists for a variety of uses, e.g., exchange of reprints, general correspondence about comparable problems, selection of experienced personnel by administrators, selection of laboratories for research during summers or sabbatical leaves, selection of laboratories offering courses in the marine sciences, and for becoming acquainted generally with the number, types, and programs of the several marine laboratories. Naturally, the first edition of such a project as this will require corrections and additions. No laboratory or member of its professional staff has been omitted intentionally. I hope that such corrections as can be made by users will be sent along to me so that the next edition, should there be sufficient interest to justify it, may contain fewer errors than the present one. No segregation of disciplines has been made, but rather the personnel has been grouped as marine scientists.

The list of laboratories contains many comparatively new ones and omits older ones which have recently been abandoned. Among the laboratories no longer extant are the University of Maine Marine Laboratory, Ellsworth, Maine, the Isles of Shoals Marine Biological Laboratory, Portsmouth, New Hampshire, and the USFWS Fisheries Laboratory, College Park, Maryland. Two laboratories, formerly engaged in marine investigations, have turned their interest to subjects which remove them from a roster of truly marine laboratories. They are the Mount Desert Island Biological Laboratory, Salisbury Cove, Maine, and the Long Island Biological Association Biological Laboratory, Cold Spring Harbor, New York.

The laboratories are listed in alphabetical order, but since many are commonly known by incomplete names, an index to them is included. The persons affiliated with each laboratory in 1949 are listed. For information concerning their respective field of marine science and their current research project refer to the alphabetical list of personnel at the end of the directory.

Information listed for each marine scientist includes his address at a marine laboratory and his permanent address, should it be different, his special field of training, and his current research project if the information was available.

An addendum includes those persons about whom information, for one reason or another, was not included in the alphabetical list.

To the Directors of the laboratories and the scientific staffs who provided me with the information contained in this directory, and who extended their fine hospitality to my wife and myself on our visit to the laboratories, my hearty thanks are due. Special thanks are due to Mrs. Charles Cutress, who typed and assisted with the arrangement of the manuscript.

Robert W. Hiatt, Chairman
Department of Zoology & Entomology
and Director, Hawaii Marine Laboratory

March, 1950
Honolulu, T. H.

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Name of laboratory: The Allan Hancock Foundation for Scientific Research.
Location: University Park, Los Angeles 7, Calif.
Director: Allan Hancock (J. W. Buchanan, Director of Research).
Financial support: Endowment.
Season of operation: All Year.
Function of laboratory: Research.
Capacity for visiting investigators: Limited (write to Director of Research).
Research facilities available: Excellent collections of tropical America fauna for taxonomic study; large library.
Expenses for laboratory accommodations: (write to Director of Research).
Expenses for room and board: Not available.

Staff:	Yale Dawson	Olga Hartman
	F. E. Durham	A. C. Howard
	K. O. Emery	Nina Loomis
	John Garth	Dorothy Luhrs
	H. S. Gentry	Irene McCulloch
		R. C. Osburn

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Name of laboratory: Atlantic Biological Station.
Location: St. Andrews, New Brunswick.
Director: A. W. H. Needler.
Financial support: Fisheries Research Board of Canada.
Season of operation: All year.
Function of laboratory: Research.
Capacity for visiting investigators: Very limited (write to Director).
Research facilities available: Standard laboratory equipment for marine biological and oceanographic research; circulating sea water; fishing and research vessels; library.
Expenses for laboratory accommodations: No charge.
Expenses for room and board: Approx. \$20.00 per week.
Staff: (see following page).

Staff: L. R. Day	W. R. Martin
P. F. Elson	F. D. McCracken
H. D. Fisher	R. A. McKenzie
H. B. Hachey	J. C. Medcalf
C. J. Kerswill	G. F. M. Smith
A. H. Leim	H. C. White
R. R. Logie	D. G. Wilder
H. J. MacLellan	

Name of laboratory: Atlantic Fisheries Experimental Station.

Location: 211 Lower Water St., Halifax, Nova Scotia, Canada.

Director: S. A. Beatty.

Financial support: Dominion Govt. of Canada Parliamentary Grant.

Season of operation: All year.

Function of laboratory: Research almost exclusively.

Courses offered:

General Bacteriological Metabolism (given at Dalhousie University. Staff of laboratory guides graduate work of students at Dalhousie University).

Capacity for visiting investigators: None at present (write to Director).

Research facilities available: Excellently equipped laboratories for research in fishery technology; pilot plants; library.

Expenses for laboratory accommodations: None providing work is done in any field of interest to the Station.

Expenses for room and board: \$20.00 per week.

Staff: C. H. Castell	W. A. MacCallum
W. J. Dyer	F. A. Vandenheuvel
M. A. Foley	A. L. Wood

Name of laboratory: Bears Bluff Laboratories.

Location: Wadmalaw Island, South Carolina.

Director: G. Robert Lunz.

Financial support: State of South Carolina; private funds.

Season of operation: All year.

Function of laboratory: Research.

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Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Laboratory space and more common apparatus; motor vessel and skiffs, collecting gear; small library; large experimental ponds.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: No charge for guest houses (write to Director); kitchen available.

Staff: J. C. Green.

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Name of laboratory: Bermuda Biological Station for Research.

Location: St. Georges West, Bermuda.

Director: Louis W. Hutchins.

Financial support: Bermuda Colonial Parliament, Rockefeller Foundation, other grants and endowments.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Several (write to Director).

Research facilities available: Standard laboratory equipment for biological and chemical research; library; motor vessels and skiffs; temperature controlled rooms; circulating sea water. (Investigators should submit list of needs).

Expenses for laboratory accommodations: \$75 per month for senior investigators, \$25 per month for assistants.

Expenses for room and board: Rooms, \$9.00 per person per week; housekeeping apts. and cott. for families from \$50.00 to \$125.00 per month. Board, \$18.00 per week.

Staff: Edwin P. Creaser

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Name of laboratory: Bingham Oceanographic Laboratory.

Location: Yale University, Box 2025 Yale Station, New Haven, Conn.

Director: Daniel Merriman.

Financial support: Yale University; ONR; State of Conn.; other private sources.

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Season of operation: All year.

Function of laboratory: Research and teaching (graduate level).

Courses offered: Oceanography
Ichthyology

Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Standard laboratory equipment for marine biological research. No vessel or circulating sea water.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: Not available.

Staff: G. B. Deevey	G. A. Riley
J. H. Olson	E. F. Thompson
G. E. Pickford	

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Name of laboratory: Boothbay Harbor Fishery Laboratory of the USFWS.

Location: Boothbay Harbor, Maine.

Director: John B. Glud.

Financial support: U. S. Gov't.; Maine Dept. of Sea & Shore Fisheries;
Fishing Industry funds.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: None.

Research facilities available: Standard marine laboratory equipment;
circulating sea water; motor boats.

Staff: Leslie Scattergood	Parker Trefethen
Harlan Spear	Walter Welch
Richard E. Tillor	

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Name of laboratory: California State Fisheries Laboratory.

Location: Terminal Island, Calif.

Director: Frances N. Clark.

Financial support: Commercial fishing licenses and privilege tax paid by fish processors of Calif.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: None.

Staff: R. D. Collyer	J. B. Phillips
D. H. Fry	W. E. Ripley
H. C. Godsil	P. M. Roedel
E. K. Holmberg	

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Name of laboratory: Carolina Marine Laboratory of the Woman's College of the University of North Carolina.

Location: Beaufort, N. C.

Director: Archie D. Shaftesbury.

Financial support: Woman's College of the University of North Carolina.

Season of operation: Summer.

Function of laboratory: Teaching.

Courses offered: (write to Director).

Capacity for visiting investigators: None.

Research facilities available: None.

Expenses for laboratory accommodations: None available.

Expenses for room and board: (write to Director).

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Name of laboratory: Chesapeake Bay Institute of the Johns Hopkins University.

Location: 1315 St. Paul Street; Field laboratory - RFD 2, Annapolis, Md.

Director: Donald Pritchard.

Financial support: ONR; States of Maryland and Virginia.

Season of operation: All year.

Function of laboratory: Teaching and research.

 

Courses offered:

Elementary and Advanced Hydro-
dynamics
Elementary and Advanced
Physical Oceanography
Engineering Oceanography

Descriptive Oceanography
Chemistry of Sea Water
Waves and Tides
Field Work in Physical Oceanography

Capacity for visiting investigators: Two.

Research facilities available: Limited chemical laboratory facilities; office space; laboratory vessel and motor cruiser outfitted for sea going collections and research.

Expenses for laboratory accommodations: Undetermined (write to Director).

Expenses for room and board: Undetermined (write to Director).

Staff: Alfred Armstrong
Wayne V. Burt

Dayton E. Carritt
Horace H. Whaley

- - - - -

Name of laboratory: Chesapeake Biological Laboratory.

Location: Solomons, Maryland.

Director: R. V. Truitt.

Financial support: State of Maryland; grants for specific projects.

Season of operation: All year.

Function of laboratory: Research almost exclusively (teaching only in summer period).

Courses offered:

Marine Zoology
Economic Zoology

Algae and Diatoms

Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Standard laboratory equipment for marine research; motor boats and skiffs; experimental fish ponds; hydrographic equipment.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: Board, approx. \$2.50 per day; for room information write to Director.

Staff: G. F. Beaven
Coit M. Coker
Alice W. Cronin
L. Eugene Cronin
Harold J. Elser

George F. Kelly
Galen H. Maxfield
Fred W. Sieling
R. D. Van Deusen

Name of laboratory: Coastal Rivers Salmon Research Laboratory of the Oregon
Fish Commission Division of Research.

Location: Bay City, Oregon.

Director: D. L. McKernan, Director of Research; John I. Hodges, in charge
Bay City Lab.

Financial support: Oregon State general funds.

Season of operation: All year.

Function of laboratory: Research.

Staff: John Brooke
Kenneth Henry

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Name of laboratory: Division of Fish and Game of the Territory of
Hawaii Laboratory.

Location: Honolulu, T. H.

Director: Vernon E. Brock.

Financial support: Territorial legislature.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: None

Research facilities available: Limited laboratory space and equipment;
sea going research vessel well equipped for fishing and hydrographic
collecting.

Staff: Yoshio Yamaguchi.

Name of laboratory: Duke University Marine Laboratory.

Location: Beaufort, North Carolina.

Director: Vacant.

Financial support: Duke University; Rockefeller Foundation.

Season of operation: June through August.

Function of laboratory: Teaching and research.

Courses offered:

Structure and Classification	Marine Invertebrate Zoology
of Algae	Marine Invertebrate Embryology
Plant Ecology	
Marine Ecology	

Capacity for visiting investigators: Eight.

Research facilities available: Standard laboratory equipment for marine biological research; circulating sea water; small library; herbarium; motor boat; skiffs.

Expenses for laboratory accommodations: \$10.00 for first week, \$5.00 weekly thereafter for research table.

Expenses for room and board: Room, \$17.50 (2 in room) or \$25.00 (single); board, \$90.00 for six weeks.

Staff: H. L. Blomquist
C. G. Bookhout
I. E. Gray
H. J. Oosting

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Name of laboratory: Gulf Coast Research Laboratory.

Location: Box 336, Ocean Springs, Miss.

Director: R. L. Caylor.

Financial support: State appropriations.

Season of operation: June through August.

Function of laboratory: Teaching and research.

Courses offered:

Marine Zoology	Endocrinology
Taxonomic Botany	Algology
Marine Sedimentation	Parasitology

Capacity for visiting investigators: (write to Director).

Research facilities available: Limited (write to Director).

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: (write to Director).

Staff: E. H. Behre	J. C. Rice
D. Demaree	Eloise Rowland
Paul Dunn	F. A. Verrelman
John M. Frazier	W. E. Wade
H. J. Jacob	J. F. Walker
Cecil Marion	

Name of laboratory: Hawaii Marine Laboratory.

Location: Coconut Island, Hawaii.

Director: Robert W. Hiatt, University of Hawaii, Honolulu, T. H.

Financial support: University of Hawaii; private donations.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

General Ichthyology	Methods of Fishery Investigations
Taxonomy of Marine Invertebrates	Population Dynamics
Ecology of Reef and Shore	Fisheries Management
Fauna	Oceanography
Comparative Invertebrate	Development of Marine Invertebrates
Physiology	
Physiological Ecology	

Capacity for visiting investigators: Six to twelve.

Research facilities available: Standard laboratory facilities for most types of marine research; motor vessel, skiffs; all types of oceanographic collecting and recording gear; large tidal ponds; circulating sea water in large tanks; library.

Expenses for laboratory accommodations: No charge for approved work.

Expenses for room and board: No charge for room; kitchen facilities provided.

Staff:	A. H. Banner	D. C. Matthews
	W. A. Gosline	B. T. Scheer
	S. C. Hsiao	A. L. Tester
	M. W. de Laubenfels	

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Name of laboratory: Hopkins Marine Station of Stanford University.

Location: Pacific Grove, Calif.

Director: Lawrence R. Blinks.

Financial support: Timothy Hopkins bequest and Stanford general funds.

Season of operation: All year; teaching June 20-Sept. 1.

Function of laboratory: Teaching and research.

Courses offered:

Physiological Methods	Ecology of Marine Animals.
General and Comparative	General Ichthyology
Physiology	Algology
General Microbiology	Invertebrate Zoology

Capacity for visiting investigators: Eight to ten; fewer during summer.

Research facilities available: Standard laboratory equipment for marine research; circulating sea water; library; small skiffs.

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: Not available through the Station.

Staff:	Donald Abbott	J. L. Stokes
	Rolf L. Bolin	C. B. van Niel
	A. C. Giese	

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Name of laboratory: The Institute of Marine Science of the University of Texas.

Location: Port Aransas, Texas.

Director: Gordon Gunter (Acting).

Financial support: University of Texas; Texas A & M Research Foundation.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

Marine Biology	Marine Ecology
Advanced Marine Biology	Fisheries Biology
Advanced Marine Invertebrate Zoology	

Capacity for visiting investigators: Five.

Research facilities available: Standard laboratory equipment for marine biology and physiology; circulating sea water; hydrographic equipment.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: Quarters furnished free, kitchen facilities available.

Staff: Joel W. Hedgpeth (on leave) E. H. Powell, Jr.
E. J. Lund

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Name of laboratory: The Lerner Marine Laboratory.

Location: Bimini, Bahamas, B.W.I. Mailing address: Lerner Marine Laboratory, 1105 duPont Building, Miami 32, Florida.

Director: C. M. Breder, Jr. (Amer. Mus. Nat. Hist., Central Park West at 79th St., New York 24, N. Y.).

Financial support: Endowment.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Limited amount of standard equipment for biological research (workers should submit a list of their needs); circulating sea water; aquaria and outdoor pools; small library; skiffs and field collecting gear.

Expenses for laboratory accommodations. No charge for approved applicants.

Expenses for room and board: No charge for approved applicants.

Staff: John C. Armstrong	John T. Nichols
Francesca R. LaMonte	Priscilla Rasquin

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Name of laboratory: Louisiana State University Marine Biological Laboratory.

Location: Grand Isle, La.

Director: Harry J. Bennett.

Financial support: Louisiana State University.

Season of operation: June through July.

Function of laboratory: Teaching.

Courses offered:

Marine Biology

Special Problems Courses

Capacity for visiting investigators: One or two during summer.

Research facilities available: None.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: No charge for housing; meals cost approx.
\$1.25 per day.

Staff: H. Bruce Boudreaux

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Name of laboratory: Maine Department of Sea and Shore Fisheries,
Fisheries Laboratory.

Location: Boothbay Harbor, Maine.

Director: Clyde C. Taylor.

Financial support: Marine gasoline tax; special legislative funds.

Season of operation: All year,

Function of laboratory: Research almost exclusively.

Courses offered: Occasional graduate students are sent here by universities
for directed research.

Capacity for visiting investigators: Two.

Research facilities available: Standard laboratory equipment; circulating
sea water; rearing tanks; motor boat with collecting gear. Any special
equipment must be furnished by the investigator.

Expenses for laboratory accommodations: None if work is approved by Maine
Dept. of Sea & Shore Fisheries.

Expenses for room and board: Not available.

Staff: Frederick J. Baird
Richard Davoy

Philip Goggins
Donald J. Harriman

Name of laboratory: Marine Biological Laboratory.

Location: Woods Hole, Mass.

Director: Charles Packard

Financial support: Endowment; fees, cooperating universities.

Season of operation: All year; teaching in summers only.

Function of laboratory: Teaching and research.

Courses offered:

Embryology

Marine Botany

Physiology

Invertebrate Zoology

Capacity for visiting investigators: 375 investigators and their assistants.

Research facilities available: Excellently equipped laboratory rooms for all types of marine biological research; extensive library; collecting service.

Expenses for laboratory accommodations: Based on the summer period of three months, the following accommodations are available upon application to the Director:

Research rooms (Brick Building and Old Main)

Single investigator, \$175 to \$210.

Two or three investigators, \$225 to \$300.

Over three in one room, \$50 each.

For each paid technician, \$50.

For each unpaid technician, \$25.

Research rooms (Rockefeller Building and Old Lecture Hall)

Depending on size of room, \$100 to \$150.

General research laboratories (for young investigators under direct supervision of senior investigators)

Table fee, \$60.

Reading desks (Library)

\$15.00 for the first week, \$5.00 per week thereafter.

Expenses for room and board: The following are based on weekly rates:

Dormitory rooms

Two or more persons in a room, \$4.00 for a cot, \$5.00 for a bed.

Rooms for mixed groups, \$10.00 to \$16.00, depending on number of persons and the building.

Board

\$14.00 at the General Mess.

Staff: No permanent staff at the Laboratory. One year around project, supported by outside funds, conducted by Dr. Albert Szent-Gyorgyi.

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Name of laboratory: Marine Biological Laboratory of the Florida State University.

Location: Alligator Harbor; P.O. address, Tallahassee, Florida.

Director: Harold J. Humm.

Financial support: Florida State University.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

Survey in Marine Biology (only undergraduate course)	Parasites of Marine Animals
Animal Ecology	Plant Ecology of the Gulf Coast
Marine Algae	Ecology of Coastal Birds
Plankton	Biology of Fishes
Invertebrate Zoology	Oceanography

Capacity for visiting investigators: Eight.

Research facilities available: Well equipped laboratories and cubicles in new building for biological research; motor boats; shop.

Expenses for laboratory accommodations: No charge for approved work.

Expenses for room and board: Residential building and cooking facilities at laboratory; charges not determined (write to Director).

Staff: Irene Bolick
Ezda Deviney

Herman Kurz
Henry Stephenson

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Name of laboratory: Marine Biological Laboratory of the USFWS.

Location: Milford, Conn.

Director: Victor L. Loosanoff.

Financial support: USFWS.

Season of operation: All year.

Function of laboratory: Research.

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Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Excellently equipped laboratory with all standard facilities, including circulating warm sea water in the winter time; large tidal ponds; two motor vessels.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: Not available.

Staff: H. C. Davis
W. S. Miller

C. A. Nomejko
P. B. Smith

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Name of laboratory: Marine Fisheries Investigation of the Oregon Fish Commission Division of Research.

Location: Astoria, Oregon

Director: D. L. McKernan, Director of Research; G. Y. Harry, in charge
Astoria Lab.

Financial support: Oregon State general fund.

Season of operation: All year.

Function of laboratory: Research.

Staff: J. van Hyning
Sigurd J. Westrheim

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Name of laboratory: Narragansett Marine Laboratory..

Location: Kingston, Rhode Island.

Director: Charles J. Fish.

Financial support: State of Rhode Island; ONR; USFWS.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

Methods of Fisheries Research
Plankton Biology
Introduction to Oceanography

Principles of Taxonomy
Marine Algology

Capacity for visiting investigators: Four.

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Research facilities available: Standard laboratory equipment for marine research; motor vessel; circulating sea water.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: Not available.

Staff:	Marie P. Fish	Richard D. Wood
	Elmer A. Palmatier	Donald J. Zinn
	David M. Pratt	

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Name of laboratory: Oregon Institute of Marine Biology.

Location: Charleston, Oregon.

Director: F. A. Gilfillan; (Ivan Pratt, Resident Manager).

Financial support: State funds.

Season of operation: June 20 to August 12.

Function of laboratory: Teaching and research.

Courses offered:

Taxonomy and Morphology of	Field Zoology
Marine Algae	Invertebrate Zoology
Systematic Botany	
Marine Ecology	

Capacity for visiting investigators: Five or six.

Research facilities available: Some equipment available but must be arranged for in advance; circulating sea water; named collections; library.

Expenses for laboratory accommodations: \$10.00 for use of research table for eight weeks.

Expenses for room and board: Approximately \$114.50 for eight weeks; family space limited (write to Director).

Staff:	James A. Macnab	Ivan Pratt
	Harry K. Phinney	

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Name of laboratory: Pacific Biological Station.

Location: Nanaimo, British Columbia, Canada.

Director: J. L. Hart.

Financial support: Fisheries Research Board of Canada.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Excellently equipped marine laboratory; motor vessels and collecting gear; library; circulating sea water.

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: (write to Director).

Staff: J. R. Brett	R. G. McMynn
T. H. Butler	Ferris Neave
W. H. Cameron	D. N. Outram
R. E. Foerster	J. M. Partlo
J. S. T. Gibson	G. C. Pike
J. L. Hart	J. G. Robertson
J. G. Hunter	J. C. Stevenson
K. S. Ketchen	F. H. C. Taylor
J. A. Lanigan	J. P. Tully
J. A. McConnell	F. C. Withler
V. A. McMahon	

Name of laboratory: Pacific Fisheries Experimental Station.

Location: 898 Richards St., Vancouver, B. C.

Director: Neal M. Carter.

Financial support: Dominion Govt. of Canada Parliamentary Grant.

Season of operation: All year.

Function of laboratory: Research almost exclusively.

Courses offered:

- A. Special courses arranged at request of Dominion Dept. of Fisheries for new field personnel (in groups, once every year or two).
- B. A few lectures and laboratory demonstrations to certain Fishery Technology students at Univ. of British Columbia.

Capacity for visiting investigators: Almost none (write to Director).

Research facilities available: Several well equipped laboratories, canning, smoking, and refrigeration pilot plants; library.

Staff: B. E. Bailey	P. J. Schmidt
N. E. Cooke	B. Southcott
J. S. M. Harrison	L. A. Swain
A. W. Lantz	H. L. A. Tarr
S. W. Roach	O. C. Young

Name of laboratory: Pacific Marine Station.

Location: Dillon Beach, Calif.

Director: Alden E. Noble.

Financial support: Endowment and student fees.

Season of operation: All year; teaching during summer.

Function of laboratory: Teaching and research.

Courses offered:

Protozoology	Invertebrate Zoology
Parasitology	Experimental Embryology
Advanced Invertebrate Zoology	Marine Algology
Animal Ecology	Animal Taxonomy
Marine Biology	Biological Oceanography

Capacity for visiting investigators: Eight.

Research facilities available: Standard laboratory equipment; circulating sea water; motor boats; small museum; small library.

Expenses for laboratory accommodations: Approx. \$5.00 per week.

Expenses for room and board: \$15 to \$25 per summer session for room; community mess approx. \$6 per week.

Staff: J. W. Hedgpeth	Earl H. Myers
J. E. Lynch	R. A. Moore
Robert Menzies	E. E. Stanford

Name of laboratory: Pacific Oceanic Fishery Investigations Laboratory.

Location: University of Hawaii, Honolulu, T. H.

Director: O. E. Sette.

Financial support: USFWS.

Season of operation: All year.

Function of laboratory: Research almost exclusively.

Courses offered: Senior staff members participate in graduate research seminars and guide thesis research in the University Department of Zoology and Entomology.

Capacity for visiting investigators: Some (write to Director).

Research facilities available: Excellently equipped laboratories for biological, chemical, and physical oceanography, fishery technology; low temperature rooms; three sea going fishing and research vessels; library; collection of pelagic fishes.

Expenses for laboratory accommodations: None if work is approved.

Expenses for room and board: Not available.

Staff: Charles Butler	Joseph King
Carl Carlson	David Miyauchi
Frederick Cleaver	Harvey Moore
Townsend Cromwell	John Reintjes
William Hoyer	Bill Shimada
Frederick June	Wilvan Van Campen

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Name of laboratory: Pomona College Biological Laboratory.

Location: Now held at Wm. G. Kerekhoff Marine Laboratory by lease arrangement.

Director: W. E. Pequegnot, Pomona College, Claremont, Calif.

Financial support: General funds of Pomona College.

Season of operation: Summer.

Function of laboratory: Teaching.

Courses offered:

General Zoology

Marine Zoology

Marine Invertebrates

Marine Vertebrates

Capacity for visiting investigators: None.

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Name of laboratory: Rutgers University Marine Laboratory.

Location: Cape May, New Jersey.

Director: Thurlow C. Nelson.

Financial support: Rutgers University.

Season of operation: Summer.

Function of laboratory: Research.

Capacity for visiting investigators: (write to Director).

Research facilities available: (write to Director).

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: (write to Director).

 

Name of laboratory: The Scripps Institution of Oceanography of the University of California.

Location: La Jolla, Calif.

Director: Carl Eckart.

Financial support: University of California, ONR, Sardine Fishing Industry, other outside grants.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

Introduction to Physical Oceanography	Waves
Submarine Geology	Tides
Biology of the Sea	Marine Meteorology
Chemistry of Sea Water	Marine Geology
Marine Vertebrates	Chemical Oceanography
Principles of Underwater Sound	Marine Microbiology
Chemical Methods	Marine Botany
Statistics	Marine Invertebrates
Physical Oceanography	Marine Biochemistry
	Ichthyology

Capacity for visiting investigators: Space available (write to Director).

Research facilities available: Excellently equipped laboratories for all phases of oceanographic science; several sea going research ships, fully equipped for oceanographic research; library; museum; circulating sea water; machine shop.

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: (write to Director).

Staff: Robert S. Arthur	G. F. McEwen
D. Carrot	John L. McHugh
J. D. Cochran	Walter Munk
Wesley Coe	Fred B. Phleger, Jr.
Gifford C. Ewing	Norris W. Rakestraw
Dennis L. Fox	Roger R. Revelle
J. Frautschy	Marston C. Sargent
Carl L. Hubbs	Francis P. Shepard
Douglas L. Inman	Warren C. Thompson
John Isaacs	Claude Zobell
Martin W. Johnson	
J. Ludwig	

Name of laboratory: Shellfish Studies Laboratory of the Oregon Fish Commission Division of Research.

Location: Newport, Oregon

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Director: D. L. McKernan, Dir. of Res.; Roger Tollofson, in charge Newport Lab.

Financial support: Oregon State general fund.

Season of operation: All year.

Function of laboratory: Research.

Staff: Lowell D. Marriage
Donald Twohy

- - - - -

Name of laboratory: Sister Lake Marine Laboratory.

Location: Box 65, Houma, La.

Director: H. Malcolm Owen.

Financial support: State funds.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: None.

Research facilities available: Well equipped for studies on marine physiology and ecology.

Staff: E. J. Broda	W. H. Tolbert
W. L. Rhiel	L. L. Walters

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Name of laboratory: South Pacific Fishery Investigations.

Location: 450-B Jordan Hall, Stanford, Calif.

Field station at Point Loma; San Diego (address USFWS, c/o Scripps Institution of Oceanography, La Jolla, Calif.).

Director: John C. Marr.

Financial support: USFWS.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: None.

Name of laboratory: Texas Game, Fish and Oyster Commission Marine Laboratory.
Location: Rockport, Texas.
Director: J. L. Baughman.
Financial support: Texas State Fish and Game fund.
Season of operation: All year.
Function of laboratory: Research.
Capacity for visiting investigators: Two or three.
Research facilities available: Limited laboratory equipment for marine biological research; circulating sea water; power boats and skiffs; small library; floating laboratory.
Expenses for laboratory accommodations: No charge.
Expenses for room and board: Not available.
Staff: A. W. Anderson, Jr. F. M. Daugherty, Jr.
B. B. Baker, Jr. Dewey Miles

Name of laboratory: USFWS Gulf Investigations.
Location: City Pier, Sarasota, Florida.
Director: William W. Anderson.
Financial support: USFWS.
Season of operation: All year.
Function of laboratory: Research.
Capacity for visiting investigators: Limited (write to Director).
Research facilities available: Chemical and culture laboratory with standard equipment; motor vessel and hydrographic gear.
Expenses for room and board: Not available.
Staff: John M. Arnison

Name of laboratory: U. S. Fisheries Laboratory.

Location: Woods Hole, Mass.

Director: Paul S. Galtsoff.

Financial support: USFWS.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Six to ten.

Research facilities available: Standard laboratory and field equipment for marine research; circulating sea water; 180 foot vessel (Albatross III).

Expenses for laboratory accommodations: No fee.

Expenses for room and board: In Woods Hole, room approx. \$7-12 per week; board at MBL about \$14.50 per week.

Staff: Edgar L. Arnold, Jr.
Raymond J. Buller
J. B. Colton
William F. Royce

Leslie Scattergood
Howard A. Shuck

- - - - -

Name of laboratory: U. S. Fisheries Laboratory.

Location: P.O. Box 1826, Pensacola, Florida.

Director: Philip A. Butler.

Financial support: USFWS.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Five.

Research facilities available: Standard laboratory equipment for marine biology and physiology; circulating sea water; skiffs.

Expenses for laboratory accommodations: Nominal (write to Director).

Expenses for room and board: Single rooms available at nominal rates which include the use of laboratory space.

Staff: John R. Wiggins.

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Name of laboratory: U. S. Fisheries Laboratory.

Location: Beaufort, North Carolina.

Director: C. E. Atkinson.

Financial support: USFWS; AEC.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Extensive (write to Director).

Research facilities available: Standard biological and chemical laboratories; circulating sea water; outside concrete ponds; motor vessels; skiffs.

Expenses for laboratory accommodations: No charge.

Expenses for room and board: No charge for room; meals obtained outside laboratory.

Staff: W. A. Chipman.

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Name of laboratory: University of Miami Marine Laboratory.

Location: Coral Gables, Florida.

Director: F. G. Walton Smith.

Financial support: Univ. of Miami, Florida State Board of Conservation, U.S. Government, West Indian Governments, Industrial Organizations.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

Marine Zoology	Taxonomy of Marine Invertebrates
Marine Botany	Phycology
Marine and Freshwater Plankton	Marine Ecology
Invertebrate Embryology	Fisheries Biology and Management
Ichthyology	Chemical Oceanography
General Oceanography	Physiology of Marine Organisms
Fisheries Practice and Technology	Systematic Ichthyology
Biochemistry of Marine Organisms	

Capacity for visiting investigators: Limited (write to Director).

Research facilities available: Standard instruments for oceanography, fisheries and marine biology; two motor vessels and floating laboratory; named collections; library.

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: (write to Director of Housing, University of Miami, Coral Gables, Florida).

Staff: Fred W. Davis
Herman Doochin
Clarence P. Idyll
Robert M. Ingle
M. Jones

Ernest S. Reynolds
Luis R. Rivas
John W. Sutton
James Q. Tierney
Robert H. Williams

Name of laboratory: University of North Carolina Institute of Fisheries Research.

Location: Morehead City, N. C.

Director: William A. Ellison, Jr.

Financial support: The Knapp Foundation; State funds.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: (write to Director).

Research facilities available: Standard equipment for oceanography, fisheries and marine biology; motor vessel; circulating sea water; library.

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: (write to Director).

Staff: Alfred C. Broad
Alphonse F. Chestnut

Eugene W. Roelofs
Harden F. Taylor

Name of laboratory: University of Washington Oceanographic Laboratories.

Location: University of Washington, Seattle, and Friday Harbor, Wash.

Director: Thomas G. Thompson.

Financial support: University of Washington.

Season of operation: All year (Teaching at Friday Harbor in the summer).

Function of laboratory: Teaching and research.

Courses offered:

Chemical Oceanography

Problems in Fisheries Biology

Advanced Invertebrate Embryology

Advanced Invertebrate Zoology

Marine Microbiology

General Oceanography

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Capacity for visiting investigators: Approx. twenty-four.

Research facilities available: Well-equipped laboratory and field apparatus for marine research; circulating sea water; large library; research vessel; skiffs.

Expenses for laboratory accommodations: \$45.00 per quarter for a laboratory table; small, private laboratories, \$60.00 per quarter.

Expenses for room and board: No organized room and board in Seattle. At Friday Harbor family cabins are \$40.00 to \$60.00 per month; rooms for single persons approximately \$20.00 per season. Board, \$12.50 per week.

Staff: Clifford A. Barnes	Erling J. Ordal
L. G. Barth	Dixie Lee Ray
Phil E. Church	Rex J. Robinson
W. A. Clemens	Emery F. Swan
Allan C. DeLacy	Clinton L. Utterback
Robert L. Fernald	Arthur H. Whiteley
J. Hoover Mackin	Dora P. Henry
Arthur W. Martin	Victor Scheffer

Name of laboratory: University of Washington School of Fisheries.

Location: Univ. of Washington, Seattle 5, Wash.

Director: Richard Van Cleve (Acting).

Financial support: State of Washington.

Season of operation: September to June.

Function of laboratory: Teaching and research.

Courses offered:

Early Life History of Fish	Aquatic Invertebrates of Commercial
Ecology of Fishes	Importance
Propagation and Nutrition of Fish	Anatomy, Physiology and Phylogeny of
Fisheries Technology	Fishes
By-products Utilization	Fish Taxonomy
	Population Dynamics of Fishes

Capacity for visiting investigators: (write to Acting Director).

Research facilities available: Standard laboratory equipment for all types of marine biological study; cold storage and pilot plant equipment for technological research; circulating sea water with temperature control; research vessel; rearing ponds.

Expenses for laboratory accommodations: (write to Acting Director).

Expenses for room and board: Not available.

Staff: A. C. DeLacy J. E. Lynch
L. R. Donaldson A. D. Welanders
W. H. Hastings

Name of laboratory: Virginia Fisheries Laboratory.

Location: Gloucester Point, Virginia.

Director: Nelson Marshall.

Financial support: College of William and Mary; State of Virginia.

Season of operation: All year.

Function of laboratory: Teaching and research.

Courses offered:

Fisheries Biology	Hydrobiology
Biology of Fishes	Chemical and Physical Oceanography
Marine and Freshwater Invertebrates	(all courses sponsored by College of William and Mary)

Capacity for visiting investigators: Six.

Research facilities available: Standard laboratory equipment for marine research; circulating sea water; constant temperature chamber; motor vessels for hydrographic and biological research.

Expenses for laboratory accommodations: No charge for approved research.

Expenses for room and board: Dormitory bed at laboratory for \$3.50 per week.
For information on board write to Director.

Staff: Jay D. Andrews William H. Mossman
A. R. Armstrong Willard A. Van Engel
Dexter Haven

Name of laboratory: Walla Walla College Biological Station.

Location: Anacortes, Washington.

Director: Ernest S. Booth.

Financial support: Walla Walla College and School of Tropical and Preventive Medicine, Loma Linda, California.

Season of operation: June through August.

Function of laboratory: Teaching and research.

Courses offered:

Ichthyology	Botany
Limnology	Fisheries Biology
Marine Invertebrate Zoology	Ecology

Capacity for visiting investigators: Six to ten.

Research facilities available: Standard laboratory equipment; motor boats and collecting equipment; small museum; small library.

Expenses for laboratory accommodations: \$62 for six weeks.

Expenses for room and board: Board, \$11 per week; room, \$3 per week.

Staff: Laurence M. Ashley	Bruce W. Halstead
Elwood R. Booth	Raymond A. Underhill
Beatrice I. Emery	

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Name of laboratory: Washington State Fisheries Laboratory.

Location: Fisheries Hall No. 3, University of Washington, Seattle, Washington.

Director: Robert R. Parker.

Financial support: State of Washington general fund.

Season of operation: All year.

Function of laboratory: Research.

Staff: R. W. Williams

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Name of laboratory: Washington State Shellfish Laboratory.

Location: Gig Harbor, Washington

Director: Cedric E. Lindsay.

Financial support: State of Washington general fund; Oyster Reserve sales.

Season of operation: All year.

Function of laboratory: Research.

Staff: David McMillin

Name of laboratory: William F. Clapp Laboratories, Inc.

Location: Washington Street, Duxbury, Mass.

Director: William F. Clapp.

Financial support: Donations from Industry.

Season of operation: All year.

Function of laboratory: Research on marine fouling.

Capacity for visiting investigators: Some (write to Director).

Research facilities available: Standard laboratory equipment for marine biological research; circulating sea water; marine borer and fouling exposure stations.

Expenses for laboratory accommodations: (write to Director).

Expenses for room and board: Not available.

Staff: Irving C. Bailey
Dorothy J. Brown
C. Irene Damon

A. S. Rhoads
Albert P. Richards

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Name of laboratory: Wm. G. Kerckhoff Marine Laboratory of the California Institute of Technology.

Location: Corona del Mar, Calif.

Director: On leave (G. W. Beadle, Ch. Division of Biology in charge).

Financial support: Institute general funds; endowment.

Season of operation: All year; teaching June 15 to Sept. 15.

Function of laboratory: Teaching and research.

Courses offered: Invertebrate and Vertebrate Zoology.

Capacity for visiting investigators: Six to eight.

Research facilities available: Standard laboratory equipment; circulating sea water; vessel; small library.

Expenses for laboratory accommodations: Vary (write to G. W. Beadle).

Expenses for room and board: Arranged (write to G. W. Beadle).

Staff: G. E. MacGinitie (on leave)
Albert Tyler

Name of laboratory: Woods Hole Oceanographic Institution.

Location: Woods Hole, Mass.

Director: Columbus O'D. Iselin.

Financial support: Rockefeller Foundation; Carnegie Foundation; U. S. Gov't. agencies; other private support.

Season of operation: All year.

Function of laboratory: Research.

Capacity for visiting investigators: Fifteen.

Research facilities available: Excellently equipped laboratories and sea going vessels for oceanographic research; machine shops; library.

Expenses for laboratory accommodations: None.

Expenses for room and board: Approx. \$20.00 per week,

Staff: Arnold Arons	A. C. Redfield
John C. Ayers	G. A. Riley
Dean F. Bumpus	W. C. Schroeder
Cornelia L. Carey	Mary Sears
George L. Clarke	H. R. Seiwel
W. M. Ewing	F. M. Soule
C. J. Fish	A. F. Spilhaus
Frederick C. Fuglister	H. C. Stetson
B. J. Haurwitz	H. M. Stommel
J. B. Hersey	H. J. Turner
L. W. Hutchins	A. C. Vine
B. H. Ketchum	W. S. von Arx
R. B. Montgomery	E. E. Watson
H. B. Moore	Elsie Wattie
F. B. Phleger	A. H. Woodcock
M. J. Pollak	George Woollard

Ahlstrom, Dr. Elbert H. USFWS South Pacific Fishery Investigations Scripps Inst. of Oceanog. La Jolla, Calif.	Fishery Biology Studies on the Eggs and Larvae of the sardine, <u>Sardinops caerulea</u> .
Anderson, Mr. A.W., Jr. Texas Game, Fish and Oyster Commission Laboratory Rockport, Texas	Marine Biology Studies on Fouling by Teredos. Food Habits of Texas Fishes.
Anderson, Mr. William W. USFWS Gulf Investigations City Pier Sarasota, Florida	Marine Biology, Administration (Chief, Gulf Fishery Investigations). Investigation of "Red Tide" Phenomena.
Andrews, Mr. Jay D. Virginia Fisheries Laboratory Gloucester Point, Va.	Marine Invertebrate Zoology Set and Survival of Oysters.
Armstrong, Dr. Alfred Chesapeake Bay Institute Johns Hopkins University 1315 St. Paul St. Baltimore, Md. or RFD 2, Annapolis, Md. or College of William and Mary Williamsburg, Va.	Chemical Oceanography Phosphate Distribution in the Major Tributaries in the Southern Portion of the Chesapeake Bay and the Relation of this Distribution to Silt Load.
Armstrong, Mr. John C. The Lerner Marine Laboratory Bimini, Bahamas, BWI or American Museum of Natural History Central Park West at 79th St. New York, N.Y.	Marine Invertebrate Zoology
Arnison, Mr. John M. USFWS Gulf Investigations City Pier, Sarasota, Florida	Chemist Investigation of "Red Tide" Phenomena.
Arnold, Mr. Edgar L., Jr. Fisheries Laboratory Woods Hole, Mass.	Fisheries Biology Age and Growth of Haddock.
Arons, Dr. Arnold Woods Hole Oceanographic Insti- tution Woods Hole, Mass.	Physical Oceanography Explosive Phenomena in Sea Water.

1. The first part of the book is devoted to a general introduction to the subject of the history of the English language.	1. The first part of the book is devoted to a general introduction to the subject of the history of the English language.
2. The second part of the book is devoted to a detailed study of the history of the English language from the beginning of the 15th century to the present day.	2. The second part of the book is devoted to a detailed study of the history of the English language from the beginning of the 15th century to the present day.
3. The third part of the book is devoted to a study of the history of the English language from the beginning of the 16th century to the present day.	3. The third part of the book is devoted to a study of the history of the English language from the beginning of the 16th century to the present day.
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6. The sixth part of the book is devoted to a study of the history of the English language from the beginning of the 19th century to the present day.	6. The sixth part of the book is devoted to a study of the history of the English language from the beginning of the 19th century to the present day.
7. The seventh part of the book is devoted to a study of the history of the English language from the beginning of the 20th century to the present day.	7. The seventh part of the book is devoted to a study of the history of the English language from the beginning of the 20th century to the present day.
8. The eighth part of the book is devoted to a study of the history of the English language from the beginning of the 21st century to the present day.	8. The eighth part of the book is devoted to a study of the history of the English language from the beginning of the 21st century to the present day.
9. The ninth part of the book is devoted to a study of the history of the English language from the beginning of the 22nd century to the present day.	9. The ninth part of the book is devoted to a study of the history of the English language from the beginning of the 22nd century to the present day.
10. The tenth part of the book is devoted to a study of the history of the English language from the beginning of the 23rd century to the present day.	10. The tenth part of the book is devoted to a study of the history of the English language from the beginning of the 23rd century to the present day.

Arthur, Mr. Robert S.	Physical Oceanography
Scripps Institution of Oceanogr. La Jolla, Calif.	Waves.
Ashley, Dr. Laurence M.	Ichthyology, Limnology
Walla Walla College Biol. Sta. Anacortes, Washington or Walla Walla College College Place, Washington	
Atkinson, Mr. C. E.	Fishery Biology
U. S. Fishery Laboratory Beaufort, N. C.	Biology of the Shad.
Ayers, Dr. John C.	Oceanography
Woods Hole Oceanogr. Institution Woods Hole, Mass.	Circulation in Estuaries.
Bailey, Dr. B. E.	Biochemist
Pacific Fisheries Exp. Sta. 898 Richards St. Vancouver, B. C.	Nutritive Values, Pharmaceutical Products.
Bailey, Mr. Irving C.	Biologist
Wm. F. Clapp Laboratories, Inc. Washington St., Duxbury, Mass.	Marine Fouling.
Baird, Mr. Frederick J.	Fishery Biology
Maine Dept. of Sea and Shore Fisheries, Fisheries Lab. Boothbay Harbor, Maine	Smelt and Scallop Investigation.
Baker, Mr. B. B., Jr.	Marine Invertebrate Zoology
Texas Game, Fish and Oyster Commission Laboratory Rockport, Texas	Life History and Ecology of <u>O. virginica</u> with Emphasis on Cultivation.
Ball, Dr. Eric G.	Biochemistry
Marine Biological Laboratory Woods Hole, Mass. or Dept. of Biochemistry Harvard Univ. Med. School	Chromoproteins in Marine Organisms.
Ballard, Mr. I. D.	Chemist
Texas A & M Research Foundation Laboratory Grand Isle, La.	Causes of Oyster Mortality.

Ballard, Dr. William W.

Embryology

Marine Biological Laboratory
Woods Hole, Mass.
or Dept. of Zoology
Dartmouth College

Banner, Dr. Albert H.

Plankton, Marine Invertebrates

Hawaii Marine Laboratory
University of Hawaii
Honolulu, T.H.

Taxonomy of Crangonid Shrimps,
Mysids and Euphausiids.

Barnes, Dr. Clifford A

Physical Oceanography

Univ. of Wash. Oceanog. Labs.
Friday Harbor and Seattle, Wash.

Barron, Dr. E.S. Guzman

Biochemistry

Marine Biological Laboratory
Woods Hole, Mass.
or Dept. of Biochemistry
Univ. of Chicago

Cellular Respiration.

Baughman, Mr. J.L.

Fishery Biology, Administration
(Director)

Texas Game, Fish and Oyster
Commission Laboratory
Rockport, Texas

Beatty, Dr. S.A.

Administration (Director)

Atlantic Fisheries Exp. Sta.
Halifax, Nova Scotia

Beaven, Mr. G.F.

Biologist

Chesapeake Biological Laboratory
Solomons, Md.

Oyster Investigations.

Behre, Dr. E.H.

Marine Zoology

Gulf Coast Research Laboratory
Box 336
Ocean Springs, Miss.

Bennett, Dr. Harry J.

Marine Biology, Administration
(Director)

Louisiana State Univ. Marine
Biological Laboratory
Grand Isle, La.

Blinks, Dr. Lawrence R.

Physiology, Administration (Director)

Hopkins Marine Station of
Stanford Univ.
Pacific Grove, Calif.

Photosynthesis by Non-green Pigments.
Electrical Potentials of Cells.

1. The first of the year was a very dry one, with only a few showers of rain.

2. The second of the year was a very dry one, with only a few showers of rain.

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20. The twentieth of the year was a very dry one, with only a few showers of rain.

21. The twenty-first of the year was a very dry one, with only a few showers of rain.

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31. The thirty-first of the year was a very dry one, with only a few showers of rain.

32. The thirty-second of the year was a very dry one, with only a few showers of rain.

33. The thirty-third of the year was a very dry one, with only a few showers of rain.

Blomquist, Dr. H.L.

Botany

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Univ. of No. Carolina Institute of Fisheries Research Morehead City, N.C.	Shrimp Investigations.
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Buller, Mr. Raymond J.	Fishery Biology
U.S. Fisheries Laboratory Woods Hole, Mass.	Census of Fish Populations on George's Bank.
Bumpus, Dr. Dean F.	Biological Oceanography
Woods Hole Oceanographic Inst. Woods Hole, Mass.	Coastal Circulation Cape Hatteras to Florida. Productivity of Mediterranean Sea.
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Chesapeake Bay Institute Johns Hopkins Univ. 1315 St. Paul Street Baltimore, Md. or RFD 2, Annapolis, Md.	A Study of the Significance of Extinction Measurements of Water Samples in Terms of Silt Load, and the Employment of These Measurements as an Index of Water Source and Circulation.

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Phosphate Adsorption by Silt.	
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Invertebrate Physiology

Oyster Physiology.

Meteorology.

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Marine Fouling Organisms.

Fishery Biology, Administration
(Director)

Life History and Abundance of the
Sardine.

Marine Biology

Causes of Oyster Mortality.

Marine Biology

Ecology of Salt Ponds.

Fishery Biology

Spawning and Early Life History of
Tunas.

Relation of Distribution and Behavior
of Tunas to Hydrographic Features.

Physical Oceanography

Waves.

Marine Invertebrate Zoology

Taxonomy and Biology of Marine
Invertebrates.

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Coker, Mr. Coit M.	Fishery Biology
Chesapeake Biological Laboratory Solomons, Md.	Fishery Investigations.
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California State Fisheries Lab. Terminal Island, Calif.	Statistical Analysis of Marine Sport Fishing.
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Pacific Oceanic Fisheries Invest. Univ. of Hawaii, Honolulu, T.H.	Hydrography of the Central Pacific in Relation to the Distribution of Tunas.

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Maine Dept. of Sea and Shore Fisheries, Fisheries Lab. Boothbay Harbor, Maine	Coastal Pollution Studies.
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Univ. of Miami Marine Lab. Coral Gables, Florida	Commercial Potentialities of <u>Sargassum</u> .
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Marine Biol. Lab., USFWS Milford, Connecticut	Larvology of Lamellibranchs.
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Narragansett Marine Lab. Kingston, Rhode Island	Biology of Atlantic Neritic and Oceanic Zooplankton.
	Bibliography of Oceanography.
Fish, Dr. Marie Poland	Ichthyology
Narragansett Marine Lab. Kingston, Rhode Island	Biology of Sound Production by Marine Animals.
Fisher, Mr. H. D.	Marine Zoology
Atlantic Biological Station St. Andrews, New Brunswick	Biology of Seals.

Fisher, Dr. Walter K.	Invertebrate Zoology
Hopkins Marine Station of Stanford Univ. Pacific Grove, Calif.	Taxonomy of Echinoderms, Gephyreans, and Sipunculoids.
Foley, Mr. M. A.	Engineering
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Scripps Institution of Oceanogr. La Jolla, Calif.	Comparative Biochemistry and Physiology of Marine Animals; Biochemistry of Pigments.
Frautschy, Mr. Jeffery D.	Physical Oceanography
Scripps Institution of Oceanog. La Jolla, Calif.	Instruments, Sediments.
Fry, Dr. D. H.	Fishery Biology
California State Fisheries Lab. Terminal Island, Calif.	Life History of King and Silver Salmon.
Fuglister, Mr. Frederick C.	Physical Oceanography
Woods Hole Oceanographic Inst. Woods Hole, Mass.	Circulation, Western North Atlantic.
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U.S. Fisheries Laboratory Woods Hole, Mass.	Physiology of Lamellibranchs.
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The Institute of Marine Science of the University of Texas Port Aransas, Texas	
	Oyster Mortality.
	Distribution of Marine Fishes.

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describes the general situation
of the country and the
state of the economy.

2. The second part of the report
describes the state of the economy.

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describes the state of the economy.

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Virginia Fisheries Laboratory Gloucester Point, Va.	Life History of the Croaker.

January 1, 1900

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Hodges, Mr. John I.	Fishery Biology
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The Institute of Marine Science of the Univ. of Texas Port Aransas, Texas	Oyster Physiology
Lunz, Mr. G. R.	Marine Invertebrate Zoology, Administration (Director)
Boars Bluff Laboratories Wadmalaw Island, So. Carolina	Oyster Cultivation Methods.
Lynch, Dr. J. E.	Invertebrate Zoology
School of Fisheries, U. of Wash. Seattle, Washington	Biology of Aquatic Invertebrates.
MacCallum, Mr. W. A.	Engineering
Atlantic Fisheries Exp. Sta. Halifax, Nova Scotia	Refrigeration Engineering.
MacGinitie, Mr. George E.	Marine Invertebrate Zoology
Wm. G. Kerckhoff Marine Lab. Corona Del Mar, Calif.	Marine Ecology.
Mackin, Dr. J. G.	Limnologist, Administration (Director)
Texas A & M Research Foundation Laboratory Grand Isle, Louisiana	Causes of Oyster Mortality.
MacLellan, Mr. H. J.	Physical Oceanography
Atlantic Biological Station St. Andrews, New Brunswick	
MacNab, Dr. James A.	Marine Ecology
Oregon Institute of Marine Biology Charleston, Oregon or Lower Columbia Jr. College Longview, Washington	
Marion, Mr. Cecil	Marine Geology
Gulf Coast Research Laboratory Box 336, Ocean Springs, Miss.	
Marr, Mr. John C.	Fishery Biology, Administration (Chief of Investigations)
USFWS South Pacific Fishery Invest. 450-B Jordan Hall, Stanford, Calif.	

1. The first of these is the	the first of these is the
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100. The hundredth is the	the hundredth is the

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or Dept. of Biochemistry
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- Matthews, Dr. Donald C. Invertebrate Zoology
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- McHugh, Mr. John L. Fishery Biology
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sardine (Sardinops caerulea).
The Biology of Anchovies.

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Fishery Biology, Administration
(Director of Research)

Marine Invertebrate Zoology

Oyster Cultivation.

Marine Invertebrate Zoology

Biology of Clams and Scallops.

Invertebrate Zoology

Taxonomy of Marine Isopods.

Ichthyology, Administration (Director)

Life History and Population Studies
of Fishes.

Embryology

Fishery Biology

Life History of Trout, Redfish and
the Flounder.

Embryology

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Marine Biology

Ecology and Physiology of Mollusks.

Miyauchi, Mr. David

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Honolulu, T. H.

Chemistry

Montgomery, Dr. R. G.

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Woods Hole, Mass.

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Theory of Fog Formation Over Sea
Water.

Moore, Mr. Harvey C.

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University of Hawaii
Honolulu, T. H.

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Studies on the Age of Tunas.

Moore, Dr. Arthur R.

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or Dept. of Physiology
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Portland, Oregon

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Moore, Dr. Hilary B.

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Woods Hole, Mass.
or Univ. of Miami Marine Lab.
Coral Gables, Fla.

Biological Oceanography

Biology of the Scattering Layer.

Moore, Dr. R. A.

Pacific Marine Station
Dillon Beach, Calif.

Embryology

Morgan, Mr. Ray

Southern Coastal Salmon and
Striped Bass Investigations
Division of Research, Oregon
Game Commission
Coos Bay, Oregon

Fishery Biology

Mossman, Mr. William H.

Virginia Fisheries Laboratory
Gloucester Point, Va.

Fishery Biology

Spawning of Shad.

10

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Myers, Dr. Earl H.	Invertebrate Zoology
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Atlantic Biological Station St. Andrews, New Brunswick	
Nelson, Dr. Thurlow C.	Marine Ecology
Rutgers Univ. Marine Lab. Cape May, New Jersey or Dept. of Zoology, Rutgers Univ. New Brunswick, N.J.	
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Nichols, Mr. John T.	Ichthyology
The Lerner Marine Laboratory Bimini, Bahamas, B.W.I. or American Museum of Natural Hist. Central Park West at 79th St. New York, N.Y.	
Noble, Dr. Alden E.	Invertebrate Zoology, Administration (Director)
Pacific Marine Station Dillon Beach, Calif. or College of the Pacific Stockton, Calif.	
Nomejko, Mr. C. A.	Marine Biology
Marine Biological Lab., USFWS Milford, Connecticut	
	Ecology of Oysters and Starfish.

1. The first part of the paper

is devoted to a general

discussion of the problem

of the existence of solutions

of the system of equations

and

under the assumption that

the functions f and g are

continuous and bounded

on the interval $[0, \infty)$

and that the matrix A is

positive definite

and the vector b is

non-negative

and the vector c is

non-negative

and the vector d is

non-negative

and the vector e is

non-negative

and the vector f is

non-negative

and the vector g is

non-negative

and the vector h is

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and the vector i is

non-negative

and the vector j is

non-negative

and the vector k is

non-negative

Nomejko, Mr. C. A.

Marine Biological Lab., USFWS
Miford, Connecticut

Marine Biology

Ecology of Oysters and Starfish.

Olsen, Dr. J. H.

Bingham Oceanographic Laboratory
Yale Univ., New Haven, Conn.

Ichthyology

Fish Taxonomy & Ecology.

Oosting, Dr. H. J.

Duke University Marine Lab.
Beaufort, No. Carolina
or Dept. of Botany, Duke Univ.
Durham, No. Carolina

Plant Ecology

Ordal, Dr. Erling

Univ. of Wash. Oceanogr. Labs.
Friday Harbor & Seattle, Wash.
or Dept. of Bacteriology
Univ. of Wash., Seattle, Wash.

Bacteriology

Osburn, Dr. Raymond C.

The Allan Hancock Foundation
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Los Angeles, Calif.

Invertebrate Zoology

Systematics of the Bryozoa.

Owen, Dr. H. Malcolm

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of the State of Louisiana
Box 65, Houma, La.

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(Director)

Causes of Oyster Mortality.

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Marine Biological Laboratory
Woods Hole, Mass.

Zoology, Administration (Director)

Parker, Dr. G. H.

Marine Biological Laboratory
Woods Hole, Mass.
or Dept. Zoology, Harvard Univ.
Cambridge, Mass.

Neurophysiology

Parker, Mr. Robert R.

State Fisheries Laboratory
Fisheries Hall No. 3
Univ. of Wash, Seattle, Wash.

Fishery Biology

Marine Fisheries.

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a description of the methodology used in the study. It includes information about the research design, the data collection methods, and the data analysis methods. It also discusses the limitations of the study.

4. The fourth part of the report is a description of the results of the study. It includes information about the findings of the study, the conclusions drawn from the findings, and the implications of the findings. It also discusses the strengths and weaknesses of the study.

5. The fifth part of the report is a conclusion and recommendations. It summarizes the findings of the study and provides recommendations for future research. It also discusses the overall contribution of the study to the field of study.

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a description of the methodology used in the study. It includes information about the research design, the data collection methods, and the data analysis methods. It also discusses the limitations of the study.

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5. The fifth part of the report is a conclusion and recommendations. It summarizes the findings of the study and provides recommendations for future research. It also discusses the overall contribution of the study to the field of study.

Farpart, Dr. Arthur K.	Physiology
Marine Biological Laboratory Woods Hole, Mass. or Dept. of Biology Princeton Univ., Princeton, N.J.	Properties of Cell Membranes.
Partlo, Mr. J. M.	Fishery Biology
Pacific Biological Station Nanaimo, B.C.	Albacore Tuna Investigation.
Phillips, Mr. J. B.	Fishery Biology
California State Fisheries Lab. Terminal Island, Calif.	Life History and Identification of Rockfish (<u>Sebastes</u>).
Phinney, Dr. Harry K.	Botany
Oregon Institute of Marine Biol. Charleston, Oregon or Oregon State College Corvallis, Oregon	
Phleger, Dr. Fred B., Jr.	Submarine Geology
Scripps Institution of Oceanogr. La Jolla, Calif.	Foraminifera of Deep Cores and Waters Above the Bottom.
Pickford, Dr. Grace E.	Marine Zoology
Bingham Oceanographic Lab. Yale Univ., New Haven, Conn.	Fish Endocrinology
	Taxonomy and Anatomy of Cephalopods.
Pierce, Dr. Madeline E.	Invertebrate Zoology
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Pike, Mr. G. C.	Marine Biology
Pacific Biological Station Nanaimo, B. C.	Whale Investigations.
Pitts, Dr. Robert F.	Physiology
Marine Biological Laboratory Woods Hole, Mass. or Dept. of Physiology Syracuse Univ., Coll. of Med. Syracuse, N. Y.	Electrolyte and Water Balance in Marine Organisms.
Pollack, Mr. M. J.	Physical Oceanography
Woods Hole Oceanogr. Insitution Woods Hole, Mass.	Circulation of Mediterranean Sea.

Powell, Mr. E. H., Jr.

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Port Aransas, Texas

Marine Biology

Field Experiments on Oyster
Mortality.

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Narragansett Marine Laboratory
Kingston, Rhode Island

Marine Biology

Productivity in Neritic Waters.

Pratt, Dr. Ivan

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Corvallis, Oregon

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Physical Oceanography; Administration
(Director)

A Study of the Theoretical Dynamics
of Estuarine Waters.

Prokop, Mr. Joseph

Texas A & M Research Foundation
Laboratory
Grand Isle, La.

Bacteriologist

Causes of Oyster Mortality.

Rakestrow, Dr. Norris W.

Scripps Institution of Oceanogr.
La Jolla, Calif.

Chemical Oceanography

Ray, Dr. Dixie Lee

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Laboratories
Friday Harbor & Seattle, Wash.
or Dept. of Zoology.
Univ. of Wash., Seattle, Wash.

Marine Invertebrate Zoology

Redfield, Dr. Alfred C.

Woods Hole Oceanographic Inst.
Woods Hole, Mass.

Marine Physiology, Administration
(Supervision of Biological Program)

Tidal Currents.

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Invertebrate Zoology

 

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Riley, Dr. Gordon A.	Marine Plankton
Bingham Oceanographic Laboratory Yale Univ., New Haven, Conn. or Woods Hole Oceanographic Inst. Woods Hole, Mass.	Plankton Ecology. Phytoplankton Production.
Ripley, Mr. W. E.	Fishery Biology
California State Fisheries Lab. Terminal Island, Calif.	Life History of Flatfishes and Savings Gear in the Trawl Fishery.
Rivas, Dr. Luis R.	Ichthyology
University of Miami Marine Lab. Coral Gables, Florida	

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Woods Hole Oceanographic Instit. Woods Hole, Mass.	Hydrography and Ecology of Pisco Bay, Peru.
	Siphonophores.
Seiwell, Dr. H. R.	Physical Oceanography
Woods Hole Oceanographic Instit. Woods Hole, Mass.	Statistical Studies of Sea and Swell.
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Shrader, Mr. E.	Chemistry
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Soule, Mr. Floyd M.	Physical Oceanography
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Southcott, Miss E.	Bacteriology, Spoilage, Preservation.
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Stanford, Mr. E. E.	Botany
Pacific Marine Station Dillon Beach, Calif. or College of the Pacific Stockton, Calif.	Marine Algae.
Steinbach, Dr. H. Burr	Physiology
Marine Biological Laboratory Woods Hole, Mass. or Dept. of Zoology Univ. of Minnesota Minneapolis, Minn.	Ionic Environment of the Cell.
Stetson, Mr. Henry C.	Submarine Geology
Woods Hole Oceanographic Inst. Woods Hole, Mass. or Museum of Comparative Zoology Harvard University Cambridge, Mass.	Marine Sedimentation.
Stevenson, Mr. J. C.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Herring Investigation.
Stokes, Dr. J. L.	Microbiology
Hopkins Marine Station of Stanford Univ. Pacific Grove, Calif.	Methylene Blue Effects on Metabolism.
Stommel, Mr. Henry M.	Physical Oceanography
Woods Hole Oceanographic Inst. Woods Hole, Mass.	Theory of Turbulence.
Sutton, Mr. John	Fishery Biology
Univ. of Miami Marine Laboratory Coral Gables, Florida	Studies on the Mullet in Florida.
Swain, Dr. L. A.	Chemistry
Pacific Fisheries Exp. Sta. 898 Richards St. Vancouver, B. C.	Fats, Oils, and Vitamins.

Swan, Dr. Emery F.	Marine Invertebrate Zoology
Univ. of Washington Oceanogr. Laboratories Friday Harbor and Seattle, Wash.	
Szent-Gyorgyi, Dr. Albert	Physiology (Director Institute for Muscle Research at MBL)
Marine Biological Laboratory Woods Hole, Mass.	Properties of Muscle.
Talbert, Mr. W. H.	Biologist
Sister Lake Marine Laboratory of the State of Louisiana Box 65, Huma, La.	Causes of Oyster Mortality.
Tarr, Dr. H. L. A.	Bacteriology
Pacific Fisheries Exp. Sta. 898 Richards St. Vancouver, B. C.	Bacteriology, Preservation, Spoilage, Microbiology.
Taylor, Mr. Clyde C.	Marine Invertebrate Zoology, Administration (Director)
Maine Dept. of Sea and Shore Fisheries, Fisheries Lab. Boothbay Harbor, Maine	Biology of the Maine Lobster.
Taylor, Dr. Harden F.	Fishery Biology
Univ. of No. Carolina Institute of Fisheries Research Morehead City, N. C.	Survey of No. Carolina Coastal Fisheries.
Taylor, Dr. William R.	Algology
Marine Biological Laboratory Woods Hole, Mass. or Dept. of Botany, Univ. Michigan Ann Arbor, Mich.	
Tester, Dr. Albert L.	Fishery Biology
Hawaii Marine Laboratory University of Hawaii Honolulu, T. H.	Biology and Population Dynamics of Baitfish, <u>Engraulis</u> <u>purpureus</u> .
Thompson, Dr. E. F.	Ichthyology
Bingham Oceanographic Laboratory Yale Univ., New Haven, Conn.	Causes of Vitamin A Fluctuations in Fishes.
	Life History of Winter Flounders.

Thompson, Dr. Thomas G.	Chemical Oceanography, Administration (Director)
Univ. of Wash. Oceanogr. Labs. Friday Harbor and Seattle, Wash.	
Thompson, Mr. Warren C.	Physical Oceanography
Scripps Institution of Oceanogr. La Jolla, Calif.	Sediments.
Thrailkill, Mr. James	Fishery Biology
USFWS South Pacific Fishery Investigations Scripps Institution of Oceanogr. La Jolla, Calif.	Studies on the Eggs and Larvae of the Sardine (<u>Sardinops caerulea</u>).
Tiller, Dr. Richard E.	Invertebrate Zoology
Boothbay Harbor Fishery Lab. of the USDI Fish and Wildlife Service Boothbay Harbor, Maine	Clam Investigations Management Studies.
Tollefson, Mr. Roger	Invertebrate Zoology, Administration (In Charge)
Shellfish Studies Division of Research, Oregon Fish Commission Newport, Oregon	
Trefethen, Mr. Parker	Fishery Biology
Boothbay Harbor Fishery Laboratory of the USDI Fish and Wildlife Service Boothbay Harbor, Maine	Herring Investigations.
Truitt, Dr. R. V.	Marine Biology, Administration (Director)
Chesapeake Biological Laboratory Solomons, Md.	
Turner, Mr. H. J.	Marine Biology
Woods Hole Oceanographic Inst. Woods Hole, Mass.	Ecology of Shellfish.
Tully, Dr. J. P.	Chemical Oceanography
Pacific Biological Station Nanaimo, B. C.	
Twohy, Mr. Donald	Invertebrate Zoology
Shellfish Studies Division of Research, Oregon Fish Commission Newport, Oregon	

Tyler, Dr. Albert

Marine Biological Laboratory
Woods Hole, Mass.
or Calif. Instituto of Technology
Pasadena, Calif..

Experimental Embryology

Mechanism of Fertilization in
Marine Organisms.

Underhill, Mr. Raymond

Walla Walla College Biol. Sta.
Anacortes, Washington
or Walla Walla College
College Place, Washington

Marine Invertebrate Zoology

Utterback, Dr. C. L.

Univ. of Washington Oceanographic
Laboratories
Friday Harbor and Seattle, Wash.

Physical Oceanography

Van Cleve, Dr. Richard

School of Fisheries, Univ.
of Washington
Seattle, Wash.

Fisheries Biology, Administration
(Acting Director)

Biology of Puget Sound Fish
Populations.

Vandenhoevel, Mr. F. A.

Atlantic Fisheries Exp. Sta.
Halifax, Nova Scotia

Chemistry

Marine Oil Research

Van Dousen, Mr. R. D.

Chesapeake Biological Lab.
Solomons, Md.

Marine Biology

Natural Resources Inventory.

Van Engel, Mr. Willard A.

Virginia Fisheries Laboratory
Gloucester Pt., Va.

Marine Invertebrate Zoology

Studies on Blue Crab Populations.

Van Hyning, Mr. John

Marine Fisheries Investigation
Division of Research, Oregon
Fish Commission
Astoria, Oregon

Fishery Biology

Van Niel, Dr. C. B.

Hopkins Marine Station of
Stanford Univ.
Pacific Grove, Calif.

Microbiology

Methodisms of Metabolic Pathways.

Verrelman, Mr. F. A.

Gulf Coast Research Laboratory
Box 336, Ocean Springs, Miss.

Marine Biology

Vine, Mr. Allyn C.	Physical Oceanography, Instruments
Woods Hole Oceanographic Inst.	Underwater Acoustics.
Woods Hole, Mass.	Development of Oceanographic Instruments.
von Arx, Mr. W. S.	Physical Oceanography, Hydrodynamics.
Woods Hole Oceanographic Inst.	Current Measuring Techniques.
Woods Hole, Mass.	Model Studies of Circulation in Shallow Water.
Wade, Mr. W. E.	Botany
Gulf Coast Research Laboratory	
Box 336, Ocean Springs, Miss.	
Wald, Dr. George	Physiology
Marine Biological Laboratory	Chemistry of Animal Pigments.
Woods Hole, Mass.	
or Dept. of Biology, Harvard Univ.	
Cambridge, Mass.	
Walker, Dr. J. F.	Marine Biology
Gulf Coast Research Laboratory	
Box 336, Ocean Springs, Miss.	
Wallis, Mr. O. L.	Fishery Biology
USFWS South Pacific Fishery	Biology of the Sardine (<u>Sardinops</u>
Investigations	<u>caerulea</u>).
450-B Jordan Hall	
Stanford, Calif.	
Walters, Mr. L. L.	Marine Biology
Sister Lake Marine Laboratory	Causes of Oyster Mortality.
of the State of Louisiana	
Box 65, Houma, La.	
Waterman, Dr. T. H.	Invertebrate Zoology
Marine Biological Laboratory	
Woods Hole, Mass.	
or Dept. of Biology, Yale Univ.	
New Haven, Conn.	
Watson, Mr. E. E.	Physical Oceanography, Hydrodynamics.
Woods Hole Oceanographic Inst.	Current Measurements.
Woods Hole, Mass.	
Wattie, Miss Elsie	Bacteriology
Woods Hole Oceanographic Inst.	Shellfish Pollution.
Woods Hole, Mass.	

Welander, Dr. A. D.	Ichthyology
School of Fisheries, Univ. Wash. Seattle, Wash.	Fishes of Western Central Pacific.
Welch, Mr. Walter	Invertebrate Zoology
Boothbay Harbor Fishery Lab. of the USDI Fish and Wildlife Service Boothbay Harbor, Maine	Clam Investigations, Statistics of Fishery Larval Studies.
Westrheim, Mr. Sigurd J.	Fishery Biology
Marine Fisheries Investigation Division of Research Oregon Fish Commission Astoria, Oregon	
Whaley, Mr. Horace H.	Marine Biology
Chesapeake Bay Institute The Johns Hopkins University 1315 St. Paul St. Baltimore, Md. or RFD 2, Annapolis, Md.	The Study of the Effect of Cuprinol on Oyster Cults to Increase Setting Potential.
Whitaker, Dr. Douglas M.	Experimental Embryology
Hopkins Marine Station of Stanford Univ. Pacific Grove, Calif. or Dept. of Biology Stanford; Univ. Stanford, Calif.	
White, Mr. H. C.	Fishery Biology
Atlantic Biological Laboratory St. Andrews, New Brunswick	Effect of Kingfishers on Salmon Fingerlings.
Widrig, Mr. Theodoro M.	Statistician
USFWS South Pacific Fishery Investigations 450-B Jordan Hall Stanford, Calif.	
Wiggins, Mr. John R.	Marine Invertebrate Zoology
U.S. Fisheries Laboratory P.O. Box 1826 Pensacola, Florida	Biology of Oysters.
Wilder, Dr. D. G.	Marine Invertebrate Zoology, Administration (Assistant Director)
Atlantic Biological Station St. Andrews, New Brunswick	Biology of the Lobster.

Williams, Dr. Robert H.	Chemical Oceanography, Ecology
University of Miami Marine Lab. Coral Gables, Florida	
Williams, Mr. R. W.	Fishery Biology
State Fisheries Laboratory Fisheries Hall No. 3 Univ. of Washington Seattle, Wash.	Marine Fisheries.
Wood, Mr. A. I.	Engineering
Atlantic Fisheries Exper. Sta. Halifax, Nova Scotia	Applied Field Engineering.
Wood, Dr. R. D.	Marine Botany
Marine Biological Laboratory Woods Hole, Mass. or Dept. of Botany Rhode Island State College Kingston, Rhode Island	
Woodcock, Mr. A. H.	Meteorology
Woods Hole Oceanographic Inst. Woods Hole, Mass.	Distribution of Sea Salt in the Atmosphere.
Woollard, Mr. George P.	Geophysics
Woods Hole Oceanographic Inst. Woods Hole, Mass. or Univ. of Wisconsin Madison, Wisconsin	Underwater Acoustics. Gravity Measurements.
Wray, Mr. D. W.	Marine Biology
Texas A & M Research Foundation Laboratory Grand Isle, La.	Causes of Oyster Mortality.
Wrinch, Dr. Dorothy	Crystallography and Biogeometry.
Marine Biological Laboratory Woods Hole, Mass. or Smith College Northampton, Mass.	
Yamaguchi, Mr. Yoshio	Fishery Biology
Division of Fish and Game Honolulu, T. H.	Studies on the Biology of the Scad.
Young, Mr. O. C.	Research Engineer
Pacific Fisheries Exp. Sta. 898 Richards St., Vancouver, B.C.	Refrigeration, Insulation.

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- Zinn, Dr. Donald J. Marine Biology
Narrangansett Marine Laboratory
Kingston, Rhode Island Ecology of Venus mercenaria.
- Zobell, Dr. Claude E. Marine Microbiology
Scripps Institution of
Oceanography
La Jolla, Calif.

ADDENDUM

- Boliek, Miss Irene Marine Invertebrate Zoology
Marine Biological Laboratory
Florida State University
Tallahassee, Fla.
- Brett, Mr. J. R. Fishery Biology
Pacific Biological Station
Nanaimo, B. C. Studies on Skeena River Salmon.
- Cameron, Mr. W. M. Oceanography
Pacific Biological Station
Nanaimo, B. C. Oceanography of Chatham Sound.
- Devinnoy, Miss Ezda M. Marine Zoology
Marine biological Laboratory
Florida State University
Tallahassee, Florida Regeneration.
- Gibson, Mr. J. S. T. Fishery Biology
Pacific Biological Station
Nanaimo, B. C.
- Humm, Dr. Harold J. Marine Algology
Marine Biological Laboratory
Florida State University
Tallahassee, Florida Agar Production.
- Hunter, Mr. J. G. Fishery Biology
Pacific Biological Station
Nanaimo, B. C. Salmon Investigations.
- Jacobs, Dr. Morkel H. Physiology
Marine Biological Laboratory
Woods Hole, Mass.
or Dept. of Physiology, U. of Penn.
Philadelphia, Pa.

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Kurz, Dr. Herman	Plant Ecology
Marine Biological Laboratory Florida State University Tallahassee, Florida	
Lanigan, Mr. J. A.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Herring Investigations.
McConnell, Mr. J. A.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Studies on Skeena River Salmon.
McMahon, Mr. V. A.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Studies on the Migration of Salmon.
McMynn, Mr. R. G.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Herring Investigations.
Outram, Mr. D. N.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	
Robertson, Mr. J. G.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Salmon Investigations.
Stephenson, Mr. Henry	Ecology
Marine Biological Laboratory Florida State University Tallahassee, Florida	
Taylor, Mr. F. H. C.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	
Withler, Mr. F. C.	Fishery Biology
Pacific Biological Station Nanaimo, B. C.	Salmon Investigations.

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