DOCTORAL DISSERTATIONS ON THE MANAGEMENT AND ECOLOGY OF FISHERIES Additional listings, 1952 - 55

SPECIAL SCIENTIFIC REPORT-FISHERIES No. 272

EXPLANATORY NOTE

The series embodies results of investigations, usually of restricted scope, intended to aid or direct management or utilization practices and as guides for administrative or legislative action. It is issued in limited quantities for official use of Federal, State or cooperating agencies and in processed form for economy and to avoid delay in publication.

United States, Department of the Interior, Fred A. Seaton, Secretary Fish and Wildlife Service, Arnie J. Suomela, Commissioner

DOCTORAL DISSERTATIONS ON THE MANAGEMENT AND ECOLOGY OF FISHERIES Additional listings, 1952-55

Compiled by

Harvey L. Moore Fishery Research Biologist Bureau of Commercial Fisheries



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In 1952 a revised listing of doctoral dissertations relating to the management and ecology of fish and fisheries was published as Special Scientific Report—Fisheries No. 87. This report covered the academic years from 1934 through 1950-51. The present report is a continuation of listings of dissertations covering the 4-year period from 1951-52 through 1954-55.

Titles have been taken from the annual "Doctoral Dissertations Accepted by American Universities," 1951-52 to 1954-55, published by H. W. Wilson Company, New York. The list is complete only to the extent of coverage of reference material and the ability of the compiler to recognize titles of significance and adequately interpret them.

Many theses are never published, and the information contained in the unpublished material is not readily available to the researcher. All theses, however, are on file in the libraries of the institutions where they were accepted. Interlibrary loans can be arranged with almost all of these institutions.

Compiled by Harvey L. Moore Division of Biological Research Bureau of Commercial Fisheries

CRUSTACEA

SEE also <u>DISEASES AND PARASITES</u>: Aaronson, Ray, Stamper; <u>ECOLOGY</u>: Borecky, Price; <u>FAUNAS AND MANUALS</u>: Crocker, Jones; <u>LIFE HISTORY</u>: Coffin, Conover; <u>LIMNOLOGY</u>: Comita; <u>PHYSIOLOGY</u>: Barber, Dalton, Durand, Guyselman, Maynard.

BROWN, Paul L.

The biology of the crayfishes of central and southeastern Illinois. PhD, Illinois, 1955.

COSTLOW, John D.

Shell development and molting in <u>Balanus improvisus</u>. PhD, Duke, 1955.

DAVIS, LeRoy T.

Studies on the nutrition of the fresh water crustacean <u>Daphnia</u> magna. PhD, Syracuse, 1954.

FAIRCHILD, Edward J., II.

Effects of lowered oxygen tension on the susceptibility of <u>Daphnia</u> magna to certain inorganic salts. PhD, Louisiana, 1955.

HILDEBRAND, Henry H.

A survey of the shallow water fauna of the commercial brown shrimp, Penaeus aztecus Ives, grounds in the western Gulf of Mexico. PhD, Texas, 1954.

LINDBERG, Robert G.

Growth, population dynamics, and field behavior in the spiny lobster, Panulirus interruptus. PhD, California, Los Angeles, 1952.

McLEESE, Donald W.

Effects of temperature, salinity, and oxygen on the survival and distribution of the lobster Homarus americanus Milne-Edwards. PhD, Toronto, 1954.

RAGOTZKIE, Robert A.

The distribution of <u>Daphnia</u> in Lake Mendota and their mode of feeding. PhD, Wisconsin, 1953.

ROBERTS, John L.

Studies on acclimatization of respiration to temperature in the lined shore crab, <u>Pachygrapsus crassipes</u> Randall. PhD, California, 1953.

SHUSTER, Carl N., Jr.

On morphometric and serological relationships within the Limulidae, with particular reference to <u>Limulus polyphemus</u> (L.). PhD, New York, 1955.

SMITH, Charles E., Jr.

Variations of excitability in the central nervous system of the crayfish. PhD, Illinois, 1954.

DEVELOPMENT

SEE also <u>CRUSTACEA</u>: Costlow, Lindberg; <u>LIFE HISTORY</u>: Jensen; MORPHOLOGY: Pierson.

ALLEN, Ashael L.

Effects of X-irradiation upon embryonic development in the paradise fish, Macropodus opercularis. PhD, California, Los Angeles, 1952,

BRUMMETT, Anna R.

The relationships of the germ ring to the formation of the tail bud in <u>Fundulus</u> as demonstrated by the carbon marking technique. PhD, Bryn Mawr, 1953.

DUWE, Arthur E.

The origin and development of the gas bladder in the green sunfish, Lepomis cyanellus Rafinesque. PhD, Ohio State, 1954.

HISACKA, Konichi K.

Effects of the carcinogen, 2-acetylaminofluorene and certain metabolic inhibitors on the early development of the zebra fish, Brachydanio rerio. PhD, Rutgers, 1954.

IVEY, William D.

The effect of lithium chloride on the development of Nassa obsoleta, a marine gastropod with mosaic development. PhD, Emory, 1955.

KAVANAU, Julian L.

Metabolism of proteins, peptides, and free amino acids during sea urchin development. PhD, California, Berkeley, 1953.

MEDLEN, Ammon B.

Studies on the development of <u>Gambusia affinis</u>. PhD, Texas A. & M., 1954.

DISEASE AND PARASITES

SEE also FAUNAS AND MANUALS: Timm; LIFE HISTORY: Wigley; MORPHOLOGY: Lennon; PHYSIOLOGY: Shellhamer.

AARONSON, Sheldon

A comparative study of <u>Gaffkya homari</u>, pathogenic in the American lobster (<u>Homarus americanus</u>), with other packet-forming micrococci. PhD. New York, 1953.

CHOQUETTE, Laurent P. E.

Studies on some helminths parasitic in the trout, <u>Salvelinus</u> fontinalis (Mitchill) in Quebec. PhD, McGill, 1954.

ETGES, Frank J.

Studies on the life histories of Maritrema obstipum (Van Cleave and Mueller, 1932) and Levinseniella amnicolae n. sp. (Trematoda: Microphallidae). PhD, New York, 1953.

HARGIS, William J., Jr.

Monogenetic trematodes of some Gulf of Mexico fishes. PhD, Florida, Tallahassee, 1954.

HUGGHINS, Ernest J.

Life history of a trematode, <u>Hysteromorpha</u> triloba (Rudolphi, 1819) Lutz, 1931, with ecological considerations. U.M. PhD, Illinois, 1953.

HUNT, John S.

The life history of Gorgodera vivata n. sp. (Trematoda:Gorgoderidae). PhD, Michigan, 1952.

LeZOTTE, Lloyd A., Jr.

Studies on marine digenetic trematodes of Puerto Rico; the family Bivesiculidae, its biology and affinities. PhD, Purdue, 1954.

MARGOLIS, Leo

Studies on parasites and diseases of marine and anadromous fish from the Canadian Pacific Coast. PhD, McGill, 1953.

McCAULEY, James E.

Some hemiurid trematodes of Oregon marine fishes. PhD, Oregon State, 1954.

MITCHELL, Rodger D.

Anatomy, life history, and evolution of the mites parasitising fresh water mussels. PhD, Michigan, 1954.

OLSON, Andrew C., Jr.

Parasites of the grunion <u>Leuresthes</u> <u>tenuis</u> (Ayres). PhD, Oregon State, 1955.

PARSONS, Thomas M.

Studies on the asexual stages in the life cycle of the frog bladder fluke, Gorgoderina attenuata, Stafford, 1902. U.M. PhD, Iowa, 1953.

RAY, Sammy M.

Biological studies of <u>Dermocystidium marinum</u>, a fungous parasite of oysters. PhD, Rice, 1954.

SINDERMANN, Carl J.

Studies on parasites of fishes, with special reference to ichthyosporidium disease of the herring. PhD, Harvard, 1953.

SMITH, Robert J.

The life-history of Megalodiscus ferrissianus n. sp. (Trematoda-Paramphistomatidae). PhD, Michigan, 1953.

STAMPER, Maynard N.

Studies on Entocythere illinoisensis Hoff, an ostracod occurring on crayfish. PhD, Ohio State, 1955.

VERNBERG, Winona M.

Studies on the trematode family Cyathocotylidae Poche, 1926, with the description of a new species of Holostephanus from fish and the life history of <u>Prohemistomum chandleri</u> sp. nov. PhD, Purdue, 1952.

WAGNER, Edward D.

Morphology and natural history of <u>Proteocephalus tumidocollus</u> n. sp. (Cestoda) from the rainbow trout. PhD, Southern California, 1954.

WU, Liang-yu

Life history studies on three genera of trematodes found in the Ottawa River. PhD, McGill, 1953.

ECOLOGY

SEE also <u>DISEASES AND PARASITES</u>: Hugghins; <u>GAME FISHES</u>: Crawley, Pratt; <u>LIFE HISTORY</u>: DeWitt; <u>LIMNOLOGY</u>: Hendricks, Teal; <u>MARINE FISH AND FISHERIES</u>: Ketchen, Salo; <u>MORPHOLOGY</u>: Yeatman; <u>SHELLFISH</u>: Allen, Dehnel, Pulley; <u>TAXONOMY</u>: Harry, Wade.

ARMITAGE, Kenneth B.

The comparative ecology of the riffle insect fauna of the Firehole River, Yellowstone National Park, Wyoming. PhD, Wisconsin, 1954.

BENSON, Norman G.

The relationship among certain ecological conditions and trout populations in the Pigeon River. PhD, Michigan, 1953.

BLUM, John L.

The ecology of algae growing in the Saline River, Michigan, with special reference to water pollution. PhD, Michigan, 1953.

BORECKY, Gloria W.

The ecology of the limnetic Cladocera of Pymatuning Reservoir. PhD, Pittsburgh, 1954.

BOUSFIELD, Edward L.

Ecological control of the occurrence of barnacles in the Miramichi estuary. PhD, Harvard, 1954.

CARPELAN, Lars H.

The hydrobiology of the Alviso salt ponds. PhD, Stanford, 1954.

CURRY, La Verne L.

An ecological study of the family Tendipedidae (Diptera) of two fresh-water lakes in Isabella County, Michigan. PhD, Michigan State, 1953.

DARNELL, Rezneat M., Jr.

An ecological study of the Rio Sabinas and related waters in southern Tamaulipas, Mexico, with special reference to the fishes. PhD, Minnesota, 1953.

deROTH, Gerardus C.

Relationship between bottom fauna and production of largemouth bass, <u>Micropterus salmoides</u> (Lacepede), in the absence of competing sport fishes. PhD, Michigan, 1953.

HANCOCK, Hunter M.

Investigations and experimentation relative to winter aggregations of fishes in Canton Reservoir, Oklahoma. PhD, Oklahoma A. & M., 1955.

- HEDGPETH, Joe1 W.
 - Ecological and distributional relations of marine and brackish water invertebrates of the coasts of Texas and Louisiana. PhD, California, Berkeley, 1952.
- JOHN, Kenneth R.

An ecological study of the cisco, <u>Leucichthys artedi</u> (Le Sueur) Lake Mendota, Wisconsin. PhD, Wisconson, 1955.

NORTH, Wheeler J.

Biometric, ecological, and quantitative metabolic studies on the marine intertidal snails, <u>Littorina planaxis</u> and <u>L. scutulata</u>. PhD, California, Los Angeles, 1953.

PECKHAM, Richard S.

Ecology and life history of the central mudminnow Umbra limi (Kirtland). PhD, Notre Dame, 1955.

POWERS, Maurice C.

The adjustment of land derived clays to the marine environment. PhD, North Carolina, 1955.

PRICE. John L.

Studies on the ecology, behaviour and taxonomy of Cyclopidae (Crustacea, Copepoda). PhD, Toronto, 1955.

PROCTOR, Vernon W.

The role of antibiosis in the ecology of fresh-water algae. PhD, Missouri, 1955.

SANDERS, Howard L.

The biology of marine benthic communities in Long Island Sound. PhD, Yale, 1955.

STORR, John F.

Ecology and oceanography of the coral reef tract, Abaco Island, Bahamas. PhD, Cornell, 1955.

SUBLETTE, James E.

The ecology of the macroscopic bottom fauna in Lake Texoma. PhD, Oklahoma, 1954.

WALTON, William R.

Ecology of living benthonic foraminifera, Todos Santos Bay, Baja California. PhD, California, Los Angeles, 1954.

WILLIAMS, George C.

A contribution to the ecology and behavior of two fishes of the southern California rocky intertidal zone. PhD, California, Los Angeles, 1955.

WINN, Howard E.

Comparative reproductive behaviour and ecology of fourteen species of darters (Pisces--Percidae). PhD, Michigan, 1955.

WOOD, Kenneth G.

Distribution and ecology of certain bottom living invertebrates of the western basin of Lake Erie. PhD. Ohio State. 1953.

WOODMANSEE, Robert A.

A preliminary investigation of the effect of light intensity on the vertical movements of <u>Daphnia pulex</u>. PhD, Western Reserve, 1952.

FAUNAS AND MANUALS

SEE also CRUSTACEA: Hildebrand; SHELLFISH: Pulley, Walter.

BACKUS, Richard H.

The marine and freshwater fishes of Labrador. PhD, Cornell, 1953.

CLENCH, William J.

Origin of the land and freshwater mollusk fauna of the Bahamas, with a list of the species occurring on Cat and Little San Salvador Islands. PhD, Michigan, 1953.

CROCKER, Denton W.

Studies of the distribution, life histories and taxonomy of the crayfishes of New York State. PhD, Cornell, 1952.

HENSON, Earl B., Jr.

The profundal bottom fauna of Cayuga Lake. PhD, Cornell, 1955.

JONES, Woodrow H.

Cladocera of Oklahoma. PhD, Oklahoma, 1955.

REEVES, Jones D.

The fishes in the little river system in Oklahoma. PhD, Oklahoma A. & M., 1954.

- REID, George K., Jr.
 - A study of the Gulf fishes in the vicinity of Cedar Key, Florida. PhD, Florida, Gainesville, 1952.
- TIMM, Richard W.

A survey of the marine nematodes of Chesapeake Bay, Maryland. PhD, Catholic, 1954.

TURNER, Ruth D.

Monograph of the Pholadidae of the western Atlantic and the eastern Pacific. PhD, Radcliff, 1954.

FOOD AND FOOD ORGANISMS

SEE also <u>CRUSTACEA</u>: Davis, Fairchild, Ragotzkie; <u>ECOLOGY</u>: Armitage, Borecky, Curry, Woodmansee; <u>FAUNAS AND MANUALS</u>: Jones; TAXONOMY: Cook; <u>TECHNIQUES</u>: Halver, Wood, Zobairi.

MacPHEE, Craig

An experimental study of competition for food in fish. PhD, Washington, 1954.

MARCY, Donald E.

The food and growth of some fishes of Pymatuning Lake, Pennsylvania. PhD, Pittsburgh, 1953.

GAME FISHES

SEE also DEVELOPMENT: Duwe; DISEASES AND PARASITES: Choquette, Parsons, Wagner; ECOLOGY: Benson, deRoth, Hancock, John; FAUNAS AND MANUALS: Backus, Reeves; LIFE HISTORY: Briggs, Grainger, Hassler, Kinney, Lowry, Riggs, Smith, Williams, Witt; LIMNOLOGY: Adams; MANAGEMENT: Tait; MORPHOLOGY: Graham; PHYSIOLOGY: Job, Wagner, Weinreb, Wisby; POPULATIONS: Johnson, Moorman, Welsh, Whitney; TECHNIQUES: Wood.

CRAWLEY, Henri D.

Causes of stunting of crappie (Pomoxis-nigro-maculatus and Pomoxis annularis) in Oklahoma lakes. PhD, Oklahoma A. & M., 1954.

EIPPER, Alfred W.

The effect of hatchery growth rate on the survival of brown trout planted in Fall Creek, New York. PhD, Cornell, 1953.

PRATT, Virgil S.

Populations, ecology, and management of marginal trout streams in southern Michigan. PhD, Michigan, 1953.

ROSEBERRY, Dean A.

Game fisheries investigation of Claytor Lake. PhD, Virginia Polytechnic Institute, 1953.

SAILA, Saul B.

Investigations on the management of trout in New York farm ponds. PhD, Cornell, 1954.

SHEPARD, Michael P.

Resistance and tolerance of young speckled trout (Salvelinus fontinalis, Mitchill) to low oxygen. PhD, Toronto, 1954.

HYDROLOGY

SEE also ECOLOGY: Carpelan; LIMNOLOGY: Adams; MARINE FISH AND FISHERIES: Hamilton, Smoker.

BORDNE, Erich F.

Water use relationships in the Genesee Valley and western Lake Ontario Basin. PhD, Syracuse, 1955.

BRUMSTED, Harlan B.

Some causes and effects of water level fluctuation in artificial marshes in New York State. PhD, Cornell, 1954.

KOVNER, Jacob L.

Changes in stream flow and vegetation characteristics of a watershed brought about by forest cutting and subsequent natural regrowth. PhD, New York State, 1955.

RICE, Elbert F., Jr.

Hydraulic characteristics of siphon spillways. PhD, Oregon State, 1955.

STONE, Robert.

Ground-water geology, geochemistry, and hydrology of the south-eastern San Joaquin Valley, California. PhD, California, Los Angeles, 1955.

LIFE HISTORY

SEE also CRUSTACEA: Brown, Lindberg; DISEASES AND PARASITES: Etges, Hugghins, Hunt, Mitchell, Smith, Vernberg, Wu; ECOLOGY: Peckham, Price, Winn; FAUNAS AND MANUALS: Crocker; FOOD AND FOOD ORGANISMS: Marcy; MARINE FISH AND FISHERIES: Salo, Smoker; MORPHOLOGY: Graham; SHELLFISH: Allen, J., Menzel; TAXONOMY: Harry.

ARNOLD, Zach M.

The life cycle, cytology, and variation of the foraminiferan Allogromia laticollaris Arnold. PhD, California, Berkeley, 1954.

BRIGGS, John C.

The behavior and reproduction of salmonid fishes in a small coastal stream. PhD, Stanford, 1952.

COFFIN, Harold C.

The biology of <u>Pagurus samuelis</u> (Stimpson). PhD, Southern California, 1955.

CONOVER, Robert J.

The biology of the copepod genus <u>Acartia</u> in Long Island Sound. PhD, Yale, 1955.

DeWITT, Robert M.

Studies on the biology of Physa gyrina Say; ecology and life history. PhD, Michigan, 1953.

GRAINGER, Edward H.

Of the age, growth, migratory habits and reproductive potential of the arctic char (Salvelinus alpinus) of Frobisher Bay, Baffin Island. PhD, McGill, 1954.

HASSLER, William W.

Age and growth of the sauger, <u>Stizostedion canadense canadense</u> (Smith) in Norris Reservoir, Tennessee. PhD, Tennessee, 1954.

JEAN, Yves

A study of spring and fall spawning herring (<u>Clupea harengus</u> L.) at Grand River, Bay of Chaleur, Quebec. PhD, Toronto, 1955.

JENSEN, Thorkil

The life cycle of the fish acanthocephalan, <u>Pomphorhynchus</u> <u>bulbocolli</u> (Linkins) Van Cleave 1919, with some observations on larval development in vitro. U.M. PhD, Minnesota, 1953.

- KINNEY, Edward C., Jr.
 - A life history study of the silver chub, <u>Hybopsis storeriana</u> (Kirtland) in western Lake Erie with notes on associated species. PhD, Ohio State, 1954.
- KOO, Swei-yen

Biology of the red salmon, Oncorhynchus nerka (Walbaum) of Bristol Bay, Alaska as revealed by a study of their scales. PhD, Washington, 1955.

LOWRY, Edward M.

The growth of the smallmouth bass (Micropterus dolomieu (Lacepede) in certain Ozark streams of Missouri. PhD, Missouri, 1953.

MATHISEN, Ole A.

Studies on the spawning biology of the red salmon, <u>Oncorhynchus</u> nerka (Walbaum) in Bristol Bay, Alaska, with special reference to the effect of altered sex ratios. PhD, Washington, 1955.

RIGGS, Carl D.

Studies on the life history of the white bass, <u>Lepibema chrysops</u> (Rafinesque), with special reference to Shafer Lake, Indiana. U.M. PhD. Michigan, 1953.

SCHWARTZ, Frank J.

Variations in the growth rates, densities, and meristic characters of four species of darters (Etheostomatinae) from the upper Allegheny River and its tributaries. PhD, Pittsburgh, 1955.

SHAW, Evelyn S.

The role of oral incubation in the embryonic survival of the cichlid fish, Tilapia macrocephala (Bleeker). PhD, New York, 1952.

SMITH, Stanford H.

Life history of the lake herring, <u>Leucichthys artedii</u> (Le Sueur), of Green Bay, Lake Michigan. PhD, Michigan, 1954.

STEVENSON, James C.

Distribution and survival of herring larvae (Clupea pallasii Valenciennes) in British Columbia waters. PhD. Toronto, 1955.

WIGLEY, Roland L.

The life history of the sea lamprey, Petromyzon marinus Linnaeus, of Cayuga Lake, New York. PhD, Cornell, 1953.

WILLIAMS, John E.

Determination of age from the scales of northern pike (Esox lucius L.). PhD, Michigan, 1955.

WITT, Arthur, Jr.

Age and growth of the white crappie, Pomoxis annularis, Rafinesque, in Missouri. PhD, Missouri, 1953.

LIMNOLOGY

SEE also <u>CRUSTACEA</u>: Davis, Ragotzkie; <u>ECOLOGY</u>: Borecky, Darnell; Proctor, Sublette, Woodmansee; <u>FAUNAS AND MANUALS</u>: Henson, Jones; HYDROLOGY: Brumsted, Kovner; <u>MANAGEMENT</u>: Tanner; <u>MICROBIOLOGY</u>: Holm-Hansen, Potash; <u>MISCELLANEOUS</u>: Kratz; <u>OCEANOGRAPHY</u>: Wang; <u>PLANKTON</u>: Schumacher; <u>POPULATIONS</u>: Johnson; <u>TAXONOMY</u>: Cook, Wade.

ADAMS, Arthur K.

Some physicochemical effects of beaver dams upon Michigan trout streams in the Watersmeet area. PhD, Michigan, 1954.

ANDERSON, George C.

A limnological study of the seasonal variations of phytoplankton populations. PhD, Washington, 1955.

BARRETT, Paul H.

Effects of alkalinity on adsorption and regeneration of phosphorus in natural lakes. PhD, Michigan State, 1952.

COMITA, Gabriel W.

A limnological study of planktonic copepod populations. PhD, Washington. 1954.

DORRIS, Troy C.

A limnological survey of lakes on the leveed flood-plain of the Mississippi in western Illinois. PhD, Illinois, 1953.

GOULD, Howard R.

Lake Mead sedimentation. PhD, Southern California, 1953.

HENDRICKS, Lawrence J.

The effect of carp (Cyprinus carpio) on the limnology of central Missouri farm ponds. PhD, Missouri, 1955.

KLEINKOPF, M. Dean

Trace element exploration of Maine lake water. PhD, Columbia, 1955.

LEONARD, Edgar M.

Limnological features and successful changes of Lake Carl Blackwell, Oklahoma. PhD, Oklahoma A. & M., 1952.

LOEFFLER, Robert J.

A new method of evaluating the distribution of planktonic algae in freshwater lakes. PhD, Wisconsin, 1955.

MURRAY, Raymond C.

The recent sediments of three Wisconsin lakes. PhD, Wisconsin, 1955.

NATELSON, Delle.

The phytosociology of submerged aquatic macrophytes in Wisconsin lakes. PhD, Wisconsin, 1955.

RIGLER, Frank H.

The circulation of phosphorus in lake water. PhD, Toronto, 1954.

SHAWE, Daniel R.

Heavy detrital minerals in stream sands of the eastern Sierra Nevada between Leevining and Independence, California. PhD, Stanford, 1954.

SLACK, Keith V.

A comparative limnological study of two small streams. PhD, Indiana, 1954.

TEAL, John M.

A study of community metabolism in a temperate cold spring. PhD, Harvard, 1955.

VALLENTYNE, John R. W.

Organic pigments in lake sediments. PhD, Yale, 1953.

ZICKER, Eldon L.

The release of phosphorus from bottom muds and light penetration in northern Wisconsin bog lake waters as influenced by various chemicals. PhD, Wisconsin, 1955.

MANAGEMENT

SEE also FOOD AND FOOD ORGANISMS: MacPhee; GAME FISHES: Crawley, Eipper, Pratt, Saila; LIMNOLOGY: Adams; MARINE FISH AND FISHER-IES: Hamilton, Smoker; POPULATIONS: Moorman.

- KOH, Kwang-lim
 - International regulation of fisheries with special reference to those in the North Pacific Ocean. PhD, Rutgers, 1953.
- TAIT, Howard D.

 Sampling problems in the Michigan creel census. PhD, Michigan, 1954.
- TANNER, Howard A.

 Experimental fertilization of Michigan trout lakes. PhD, Michigan State, 1952.

MARINE FISH AND FISHERIES

SEE also CRUSTACEA: Hildebrand, Lindberg, McLeese; DISEASES AND PARASITES: Hargis, Margolis, McCauley, Olson, Sindermann; ECOLOGY: Williams; FAUNAS AND MANUALS: Backus, Reid; LIFE HISTORY: Briggs, Jean, Koo, Mathisen, Stevenson; MANAGEMENT: Koh; MORPHOLOGY: Jollie, Pierson; PHYSIOLOGY: Robertson; POPULATIONS: Neave; TECHNIQUES: Halver, Morris; TECHNOLOGY: Khan, Osman.

- GROODY, Thomas C.
 - Behavior studies on the Pacific sardine, <u>Sardinops</u> <u>caerulea</u> (Girard). PhD, California, Berkeley, 1952.
- HAMILTON, James A. R.

 An investigation of the effect of Baker Dam on downstream migrant salmon. PhD, Washington, 1955.
- IDYLL, Clarence P.
 Salt water tagging experiments on sockeye salmon (Oncorhynchus nerka Walbaum). PhD, Washington, 1952.
- Factors influencing the survival of the lemon sole (Parophrys vetulus Girard) in Hecate Strait, British Columbia. PhD, Toronto, 1953.

McCRACKEN, Francis D.

Seasonal movements of the winter flounder <u>Pseudopleuronectes</u> americanus (Walbaum) on the Atlantic Coast. <u>PhD, Toronto, 1954.</u>

SALO, Ernest O.

Silver salmon, Oncorhynchus kisutch, survival studies at Minter Creek, Washington. PhD, Washington, 1955.

SMOKER, William A.

Effects of streamflow on silver salmon production in western Washington. PhD, Washington, 1955.

MICROBIOLOGY

SEE also POLLUTION: Tennant; TECHNOLOGY: Charney.

HOLM-HANSEN, Osmund

A study of major and minor element requirements in the nutrition of blue-green algae. PhD, Wisconsin, 1954.

MORITA, Richard Y.

Occurrence and significance of bacteria in marine sediments. PhD, California, Los Angeles, 1955.

PHILLIPS, Jesse N., Jr.

The growth rate of <u>Chlorella pyrenoidosa</u> as a function of intensity and intermittency of illumination. PhD, Texas, 1953.

POTASH, Milton

A biological test for determining the potential productivity of water. PhD, Cornell, 1953.

SHRIFT, Alex

Sulfur-selenium antagonism: anti-metabolite action of selenate and selenomethionine on the growth of <u>Chlorella vulgaris</u>. PhD Columbia, 1953.

STARR, Theodore J.

A study of marine myxobacteria. PhD, Washington, 1954.

MISCELLANEOUS

ALDRICH, Frederick A.

On the functional morphology of the alimentary canal of the sea star Asterias forbesi (Desor). PhD, Rutgers, 1954.

ALFKE, Dorothy E.

Professional opportunities for women in conservation and natural science. PhD, Cornell, 1953.

BEAN, Ross C.

Carbohydrate metabolism in the marine red alga, <u>Iridophycus</u> flaccidum. PhD, California, 1954.

CRUTCHFIELD, James A., Jr.

The economics of the Pacific Coast fresh market fishing industry. PhD, California, Berkeley, 1955.

FISHER, Harold D.

Studies on reproduction in the harp seal (<u>Phoca greenlandica</u>) Erxleben in the northwest Atlantic. PhD, McGill, 1955.

KRATZ, William A.

Studies on the physiology of blue-green algae. PhD, Texas, 1955.

McMASTER, Rachel D.

Desoxyribose nucleic acid in cleavage and larval states of the sea urchin. PhD, Columbia, 1955.

PETERSEN, Eugene T.

The history of wild life conservation in Michigan, 1859-1921. U.M. PhD, Michigan, 1953.

PETERSON, Peter V., Jr.

A preliminary study of the opportunities presented by fresh-water streams as laboratories for pre-college science and conservation programs. PhD, Cornell, 1953.

PINKETT, Harold T.

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