

## PUBLICATIONS

July 1, 1973, to June 30, 1975

- Ahlstrom, E. H. 1974. The diverse patterns of metamorphosis in gonostomatid fishes: an aid to classification, p. 659-674. In J. H. Blaxter (ed.) The early life history of fish. Int. Symp. Dunstaffnage Mar. Res. Lab., Scot. Mar. Biol. Assoc., Oban, Scotland, May 17-23, 1973. Proc. Springer-Verlag, Berlin.
- Ally, J. R. Raymond. 1974. A description of the laboratory-reared first and second zoeae of *Portunus xantusii* (Stimpson) (Brachyura, Decapoda). Calif. Fish and Game, 60(2): 74-78.
- \_\_\_\_\_. 1975. A description of the laboratory-reared larvae of *Cancer gracilis* Dana, 1852 (Decapoda, Brachyura). Crustaceana, 28(3): 231-246.
- Ally, J. R. Raymond, Ronald G. Evans and Thomas W. Thompson. 1975. The results of an exploratory fishing cruise for *Loligo opalescens* in southern and central California, June 5-25, 1974. Calif. St. Univ. and Coll., Moss Landing Mar. Lab., Sea Grant Tech. Publ., (75-2): 1-22. (Moss Landing Mar. Lab., Contrib., (46).)
- Alvarino, Angeles. 1974a. Chaetognatha, p. 18-19. In Encyclopedia Britannica, Inc., 15th ed., Chicago.
- \_\_\_\_\_. 1974b. Distribution of siphonophores in the regions adjacent to the Suez and Panama Canals. Fish Bull., U. S., 72(2): 527-546.
- Alvarez, S., and Richard A. Schwartzlose. 1973. Algunos problemas oceanologicos de los mares adyacentes a la peninsula de Baja California. Calafia: Rev. Univ. Autonoma de Baja Calif., 2(2): 37-39.
- Beers, J. R. 1974a. Controlled ecosystem pollution experiment (CEPEX): Micro-zooplankton in the controlled environment pollution experiment. Prog. Rept. Calif. Univ., IMR Ref., (74-10): Pts. 1 and 2.
- \_\_\_\_\_. 1974b. Think small! Protozoa in the world of the plankton. Environ. Southwest, (460): 1-7.
- Berman, T., and O. Holm-Hansen. 1974. Release of photo-assimilated carbon as dissolved organic matter by marine phytoplankton. Mar. Biol. 28: 305-310.
- Bezdek, H. F., and A. F. Carlucci. 1974. Concentrations and removal of microlayers from a seawater surface by bursting bubbles. Limnol. Oceanogr., 19: 126-132.
- Brinton, Edward. 1973. Distributional atlas of Euphausiacea (Crustacea) in the California Current region. Pt. 2. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest., Atlas, (18): 1-336.
- \_\_\_\_\_. 1975. Euphausiids of Southeast Asian waters. Univ. Calif., Naga Repts., 4(5): 1-256.
- Brinton, Edward, and K. Gopalakrishnan. 1973. The distribution of Indian Ocean euphausiids, p. 357-382. In B. Zeitzschel (ed.) The biology of the Indian Ocean: vol. 3, Ecological studies. Springer-Verlag, Berlin.
- Brown, J. F., and C. S. Cox. 1973. Design of light, cylindrical pressure cases. Engl. J., 55: 35-37.
- Carlucci, A. F. 1973a. Bioassay: Biotin, p. 377-385; Cyanocabalin, p. 387-394. In J. Stein (ed.) Handbook of phycological methods, Cambridge Univ. Press, New York.
- \_\_\_\_\_. 1974. Production and utilization of dissolved vitamins by marine phytoplankton, p. 449-456. In R. R. Colwell and R. Y. Morita (eds.) Effect of the ocean environment on microbial activities. University Park Press, Baltimore.
- Carlucci, A. F., and S. L. Shimp. 1974. Isolation and growth of a marine bacterium in low concentrations of substrate, p. 362-367. In R. R. Colwell and R. Y. Morita (eds.) Effect of the ocean environment on microbial activities. University Park Press, Baltimore.
- Cheng, Lanna. 1973a. Can *Halobates* dodge nets? I. By daylight? Limnol. Oceanogr., 18(4): 663-665.
- \_\_\_\_\_. 1973b. *Halobates*. Oceanogr. and Mar. Biol. Ann. Rev., 11: 223-235.
- \_\_\_\_\_. 1973c. The ocean strider *Halobates* (Heteroptera: Gerridae) in the Atlantic Ocean. Oceanologia, 13(4): 683-690. (in Russian)
- \_\_\_\_\_. 1973d. Some *Halobates* from the Pacific Ocean. Jap. J. Zool., 17(1): 11-15.
- \_\_\_\_\_. 1974a. Fluidization as a feeding mechanism by beach flies (Diptera:Ephydriidae). Nature, 250(5462): 167-168.
- \_\_\_\_\_. 1974b. *Halobates* from the north-west African area. Span. Inst. Invest. Pesq., Result. Exped. Cient. Cornide de Saavedra, 3: 169-171.
- \_\_\_\_\_. 1974c. Notes on the ecology of the oceanic insect *Halobates*. Mar. Fish. Rev., 36(2): 1-7.
- \_\_\_\_\_. 1975a. Marine pleuston—animals at the sea-air interface. Oceanogr. and Mar. Biol. Ann. Rev., 13: 181-212.
- \_\_\_\_\_. 1975b. Zooplankton identification for pelagic *Halobates*: Insecta. Heteroptera, Gerridae. Cons. Perm. Int. Explor. de la Mer, Zooplankton Identification Sheet (147).
- Cheng, Lanna, and J. T. Enright. 1973. Can *Halobates* dodge nets? 2. by moonlight? Limnol. Oceanogr., 18(4): 666-669.
- Chow, T. J. 1974. Lead pollution: An assessment for the Los Angeles coastal zone, p. 110-113. In W. B. Merselis (ed.) Symposium on coastal zone management and the western states future. Los Angeles, Dec. 3-4, 1973. Mar. Tech. Soc., L. A. Reg. Sec., Proc. Mar. Tech. Soc., Wash., D.C.
- Chow, T. J., K. Bruland, K. Bertine, A. Soutar, M. Koide and E. D. Goldberg. 1973. Lead pollution: Records in southern California coastal sediments. Science, 181: 551-552.
- Chow, T. J., C. C. Patterson and D. Settle. 1974. Occurrence of lead in tuna. Nature, 251: 159-161.
- Chow, T. J., C. B. Snyder and J. L. Earl. 1974. Isotope ratios of lead as pollutant source indicator. In FAO/IAEA Joint symposium on isotope ratios as pollutant source and behavior indicators, Proc., Vienna, November 18-22.
- Clark, N. E., L. Eber, R. M. Laurs, J. A. Renner and J. F. T. Saur. 1974. Heat exchange between ocean and atmosphere in the eastern north Pacific for 1961-71. U. S. NOAA Tech. Rept., NMFS, SSRF, (682): 1-108.
- Cox, C. S. 1974. Refraction and reflection of light at the sea surface, p. 51-75. In N. G. Jerlov and E. S. Nielsen (eds.) Optical aspects of oceanography. Academic Press, New York.
- Cox, C. S., and J. H. Filloux. 1974. Two dimensional numerical models of the California electromagnetic coastal anomaly. J. Geomag. Geoelectr., 26: 257-267.
- Cox, C. S., M. C. Gregg and P. W. Hacker. 1973. Vertical microstructure measurements in the central north Pacific. J. Phys. Oceanogr., 3(4): 458-469.
- Crooke, Stephen J. 1973. The first occurrence of *Kyphosus analogus* in California. Calif. Fish and Game, 59(4): 310-311.
- Dayton, Paul K. 1973a. Dispersion, dispersal and persistence of the annual intertidal alga, *Postelsia palmaeformis* Ruprecht. Ecology, 52(2): 433-438.
- \_\_\_\_\_. 1973b. Two cases of resource partitioning in an intertidal community: Making the right prediction for the wrong reason. Amer. Nat., 107: 662-670.
- \_\_\_\_\_. 1974. Kelp communities of southern South America. Antarct. J. of U.S., 9: 22-23.
- \_\_\_\_\_. 1975a. Experimental evaluation of ecological dominance in a rocky intertidal algal community. Ecol. Monogr., 45(2): 137-159.

- \_\_\_\_\_. 1975b. Experimental studies of algal canopy interactions in a sea otter-dominated kelp community at Amchitka Island, Alaska. *Fish. Bull.*, U. S., 73: 230-237.
- Dayton, Paul K., R. J. Rosenthal and L. C. Mahan. 1973. Kelp communities in the Chilean archipelago: R/V *Hero* cruise 72-5. *Antarct. J. of U. S.*, 8(2): 34-35.
- Dayton, Paul K., G. A. Robilliard, R. T. Paine and L. B. Dayton. 1974. Biological accommodation in the benthic community at McMurdo Sound, Antarctica. *Ecol. Monogr.*, 44: 105-128.
- Eber, L. E. 1973. Subpoint prediction for direct readout meteorological satellites. U. S. NOAA Tech. Rept., NMFS, SSRF, (669): 1-7.
- Fenical, W. H. 1974. Rhodophytin, a halogenated vinyl peroxide of marine origin. *Amer. Chem. Soc. J.*, 96: 5580-5581.
- Fenical, W. H., and J. J. Sims. 1974. Cycloeuodesmol, an antibiotic cyclopropane containing sesquiterpene from the marine alga, *Chondria oppositoclada* Dawson. *Tetrahedron Lett.*, 13: 1137-1140.
- Fenical, W. H., K. B. Gifkins and J. Clardy. 1974. X-ray determination of chondriol; a reassignment of structure. *Tetrahedron Lett.*, 16: 1507-1510.
- Fenical, W. H., J. J. Sims, D. Squatrito, R. M. Wing and P. Radlick. 1973. Marine natural products. 7. Zonarol and isozonarol, fungitoxic hydroquinones from the brown seaweed, *Dictyoperis zonarioides*. *J. Org. Chem.*, 38(13): 2383-2386. (Also in: Proc. 3rd Inter. Conf. on Food-Drugs from the sea, Kingston, R.I., Aug. 1972).
- Fenical, W. H., J. J. Sims, R. M. Wing and P. Radlick. 1973. Marine natural products. 6. Chondriol, a novel acetylenic sesquiterpene from red alga *Chondria oppositoclada*. *Tetrahedron Lett.*, 4: 313-316.
- Fleming, Eugene. 1974. Review of the pelagic wet-fisheries for 1972. Mar. Res. Comm., Calif. Coop. Fish. Invest. Rept., 17: 31-32.
- Fleminger, Abraham. 1973. Pattern, number, variability and taxonomic significance of integumental organs (sensilla and glandular pores) in the genus *Eucalanus* (Copepoda:Calanoida). *Fish. Bull.* U.S., 71(4): 965-1010.
- \_\_\_\_\_. 1974. Prevalent biogeographic patterns in marine eipelagic zooplankton. *Amer. Soc. Zool.*, 14(4): 1274. (Abstr.)
- Fleminger, Abraham, and K. Hulsemann. 1974. Systematics and distribution of the four sibling species comprising the genus *Pontellina* Dana (Copepoda:Calanoida). *Fish. Bull.*, U.S., 72(1): 63-120.
- \_\_\_\_\_. 1975. Some aspects of copepodid development in the genus *Pontellina* Dana (Copepoda:Calanoida). *Bull. Mar. Sci.*, 25(2): 174-185.
- Fleminger, A., J. D. Isaacs and J. G. Wyllie. 1974. Zooplankton biomass measurements from CalCOFI cruises of July 1955 to 1959 and remarks on comparison with results from October, January and April cruises of 1955 to 1959. *Mar. Res. Comm.*, Calif. Coop. Fish. Invest., Atlas, (21): 1-118.
- Foster, Theodore D., and William C. Patzert. 1973. CATO expedition—leg 6. *Nav. Res. Rev.*, July: p. 30-31.
- Fox, William W., Jr. 1973. A general life history exploited population simulator with pandalid shrimp as an example. *Fish Bull.*, U.S., 71(4): 1019-1028.
- \_\_\_\_\_. 1975. Fitting the generalized stock production model by least-squares and equilibrium approximation. *Fish Bull.*, U.S., 73(1): 23-37.
- Frey, Herbert W., and Eric H. Knaggs. 1973. Status of Pacific mackerel spawning population, 1973. Calif. Dept. Fish and Game, Mar. Res. Adm. Rept., (73-7): 1-16.
- Ganssle, David. 1973. The status of the northern anchovy resource and its management. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (5): 1-14.
- Gates, Doyle E., and Herbert W. Frey. 1974. Designated common names of certain marine organisms of California. Calif. Dept. Fish and Game, Fish Bull., (161): 55-90.
- Guillen, Oscar, J. L. Earl and T. J. Chow. 1974. Chemical analysis of Peruvian guano. *Peru Minist. Pesq., Documenta*.
- Hardwick, James E. 1973. Biomass estimates of spawning herring, *Clupea herengus pallasi*, herring eggs, and associated vegetation in Tomales Bay. *Calif. Fish and Game*, 59(1): 36-61.
- Haugen, Charles W. 1973. The status of the Pacific sardine resource and its management. *Calif. Dept. Fish and Game, Mar. Res. Tech. Rept.*, (13): 1-15.
- Hessler, Robert R. 1974. The structure of deep benthic communities from central oceanic waters, p. 79-93. In C. B. Miller (ed.) *The biology of the oceanic Pacific: Proc. 33rd Ann. Biol. Colloq. Oregon St. Univ. Press, Corvallis*.
- Hessler, Robert R., and Peter A. Jumars. 1974. Abyssal community analysis from replicate box cores in the central North Pacific. *Deep-Sea Res.*, 21: 185-209.
- Hessler, Robert R., and Howard L. Sanders. 1973. Two new species of *Sandersella* (Cephalocarida), including one from the deep sea. *Crustaceana*, 24(2): 181-196.
- Hirschfeld, D. R., W. H. Fenical, G. H. Y. Lin, R. M. Wing, P. Radlick and J. J. Sims. 1973. Marine natural products. 8. Pachydictyol A, an exceptional diterpene alcohol from brown alga *Pachydictyon coriaceum*. *Amer. Chem. Soc. J.*, 95: 4049.
- Hom, W., A. Soutar, R. W. Risebrough and D. R. Young. 1974. Deposition of DDE and polychlorinated biphenyls in dated sediments of the Santa Barbara basin. *Science*, 184: 1197-1199.
- Hunter, J. R., and G. L. Thomas. 1974. Effect of prey distribution and density on the searching and feeding behavior of larval anchovy *Engraulis mordax* Girard, p. 559-574. In J. H. S. Blaxter (ed.) *The early life history of fish. Int. Symp. Dunstaffnage Mar. Res. Lab., Scot. Mar. Biol. Assoc., Oban, Scotland, May 17-23, Proc. Springer-Verlag, Berlin*.
- Isaacs, John D. 1973a. The ocean margins, p. 76-93. In T. Saunders English (ed.) *Ocean resources and public policy*. Univ. Wash. Press, Seattle, (Seminar, 21 Feb. 1968).
- \_\_\_\_\_. 1973b. Potential trophic biomasses and trace-substance concentrations in unstructured marine food webs. *Mar. Biol.*, 22: 97-104.
- Isaacs, J. D., and R. A. Schwartzlose. 1975. Biological applications of underwater photography. *Oceanus*, 18(3): 24-30.
- Isaacs, J. D., and G. L. Wick. 1973. Optimized tactics for open-water marine predators. *Mar. Biol. Ass., India, Spec. Publ.*; 193-199.
- Isaacs, John D., Sargun A. Tont and Gerald L. Wick. 1974. Deep scattering layers: Vertical migration as a tactic for finding food. *Deep-Sea Res.*, 21: 651-656.
- Isaacs, J. D., J. W. Stork, D. B. Goldstein and G. L. Wick. 1975. Effect of vorticity pollution by motor vehicles on tornadoes. *Nature*, 253 (5489): 254-255.
- Johnson, David A., Scott E. McDowell, Joseph L. Reid and William C. Patzert. 1974. On the flow of Antarctic bottom water through the Vema Channel. *Geol. Soc. Amer. Ann. Meet., Abstr. with Programs*, 6(7): 811.
- Johnson, Martin W. 1974. On the dispersal of lobster larvae into the east Pacific barrier (Decapoda, Palinuridea). *Fish. Bull.*, U.S., 73(3): 639-647.
- Johnson, Martin W., and Margaret D. Knight. 1975. A supplementary note on the larvae of *Scyllarides astori* Holthuis (Decapoda, Scyllaridae). *Crustaceana*, 28(1): 109-112.
- Kimura, Makoto. 1973. Inconsistencies in locating the first annulus of Pacific sardines. *Calif. Fish and Game*, 59(3): 191-195.
- Kittredge, J. S., Francis T. Takahashi, James Lindsey and Reuben Lasker. 1974. Chemical signals in the sea: Marine allelochemistry and evolution. *Fish. Bull.*, U.S., 72(1): 1-11.
- Klingbeil, Richard A. 1974. Average lunar monthly catch of sardines in California for the 1954-55 through 1961-62 seasons. *Calif. Dept. Fish and Game, Mar. Res. Tech. Rept.*, (26): 1-43.
- Knaggs, Eric H. 1973. The status of the jack mackerel resource and its management. *Calif. Dept. Fish and Game, Mar. Res. Tech. Rept.*, (11): 1-12.

- \_\_\_\_\_. 1974a. The southern California jack mackerel fishery and age composition of the catch for the 1947-48 through 1956-57 seasons. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (22): 1-47.
- \_\_\_\_\_. 1974b. The southern California jack mackerel fishery and age composition of the catch for the 1957-58 through 1961-62 seasons. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (24): 1-25.
- \_\_\_\_\_. 1974c. Status of Pacific mackerel spawning population, 1974. Calif. Dept. Fish and Game, Pac. Mackerel Ann. Rept. (2), Mar. Res. Admin. Rept., (5): 1-10.
- Knaggs, Eric H., and P. A. Barnett. 1975. The southern California jack mackerel fishery and age composition of the catch for the 1962-63 through 1966-67 seasons. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (28): 1-28.
- Knaggs, Eric H., and Richard H. Parrish. 1973. Maturation and growth of Pacific mackerel, *Scomber japonicus* Houttuyn. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (3): 1-19. (Also: Calif. Fish and Game, 59(2): 114-120.)
- Knaggs, Eric H., and J. S. Sunada. 1974. Validity of otolith age determinations for jack mackerel, *Trachurus symmetricus*, from the southern California bight area. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept. (21): 1-11.
- Knight, Margaret D. 1975. The larval development of Pacific *Euphausia gibboidea* (Euphausiacea). Fish. Bull., U.S., 73(1): 145-168.
- Krishnaswami, S., A. Soutar, D. Lal and B. S. Amin. 1973. Geochronological studies in Santa Barbara basin:  $^{55}\text{Fe}$  as a unique tracer for particulate settling. Limnol. Oceanogr., 18(5): 763-770.
- Lam, Ron K. 1974a. Atoll permeability calculated from tidal diffusion. J. Geophys. Res., 79(21): 3073-3081.
- \_\_\_\_\_. 1974b. Current measurements off the California coast, 1972. Scripps Inst. Oceanogr., SIO Ref. Ser., (74-12).
- \_\_\_\_\_. 1974c. Swains Island tide measurements, April-May 1970. Scripps Inst. Oceanogr., SIO Ref. Ser., (74-11).
- Laurs, R. Michael, and Ronald J. Lynn. 1975. The association of oceanic boundary features and albacore tuna in the northeast Pacific. STD Conf. and Workshop, Feb. 12-14, 1975, San Diego, Proc.: 23-30.
- Lee, R. F. and Lanna Cheng. 1974. A comparative study of the lipids of water-striders from marine, estuarine and freshwater environments: *Halobates*, *Rheumatobates*, *Gerris* (Heteroptera: Gerridae). Limnol. Oceanogr., 19(6): 958-965.
- Lee, R. F., J. T. Polhemus and Lanna Cheng. 1975. Lipids of the waterstrider *Gerris remigis* Say (Heteroptera: Gerridae): seasonal and developmental variations. Comp. Biochem. Physiol., 51(B): 451-456.
- Lenarz, William H. 1974. Length-weight relations for five eastern tropical Atlantic scombrids. Fish. Bull., U.S., 72(3): 848-851.
- Lenarz, William H., and Eugene L. Nakamura. 1974. Analysis of length and weight data on three species of billfish from the western Atlantic Ocean. Int. Billfish Symp., Kailua-Kona, Hawaii, 9-12 August 1972. Proc., pt. 2. Review and Contr. Pap. U.S. NOAA, Tech. Rept., SSRF, (675): 121-125.
- Lenarz, W. H., W. W. Fox, Jr., G. T. Sakagawa and B. J. Rothschild. 1974. An examination of the yield per recruit basis for a minimum size regulation for Atlantic yellowfin tuna, *Thunnus albacares*. Fish. Bull., U.S., 72(1): 37-61.
- Lenarz, W. H., F. J. Mather, III, J. S. Beckett, A. C. Jones and J. Mason. 1973. Estimation of rates of tag shedding by northwest Atlantic bluefin tuna. Fish. Bull., U.S., 71(4): 1103-1105.
- Linley, J. R., and Lanna Cheng. 1974. The grooming organs of *Culicoides* (Diptera:Ceratopogonidae). Mosquito News, 34(2): 204-206.
- MacCall, Alec D. 1973a. The mortality rate of *Engraulis mordax* in southern California. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept. (4): 1-23.
- \_\_\_\_\_. 1973b. The status of the Pacific mackerel resource and its management. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (12): 1-13.
- \_\_\_\_\_. 1974. The mortality rate of *Engraulis mordax* in southern California. Calif. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest., Rept., 17: 131-135.
- McGowan, John A. 1974. The nature of oceanic ecosystems, p. 9-28. In Charles Miller (ed.) The biology of the oceanic Pacific: Proc. 33rd Ann. Biol. Colloq. Oregon St. Univ. Press, Corvallis.
- McGowan, John A., and Peter M. Williams. 1973. Oceanic habitat differences in the North Pacific. J. Exp. Mar. Biol. and Ecol., 12: 187-217.
- MacGregor, John S. 1974. Changes in the amount and proportions of DDT and its metabolites, DDE and DDD, in the marine environment off southern California, 1949-72. Fish. Bull., U.S., 72(2): 275-293.
- Mague, T. H., and O. Holm-Hansen. 1975. Nitrogen fixation on a coral reef. Phycologia, 14(2): 87-92.
- Mais, Kenneth F. 1973. California Department of Fish and Game Fisheries Resources Sea Survey Cruises, 1972. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest., Data Rept., (22): 1-88.
- \_\_\_\_\_. 1974. Pelagic fish surveys in the California Current. Calif. Dept. Fish and Game, Fish Bull., (162): 1-79.
- Maxwell, William D. 1974. A history of the California live-bait fishing industry. Calif. Dept. Fish and Game, Mar. Res. Tech. Rept., (27): 1-24.
- \_\_\_\_\_. 1975. The croakers of California. Calif. Dept. Fish and Game, Mar. Res. Leafl., (8): 1-16.
- Moser, H. Geoffrey. 1974. Development and distribution of larvae and juveniles of *Sebastolobus* (Pisces; family Scorpaenidae). Fish. Bull., U.S., 72(4): 865-884.
- Moser, H. Geoffrey, and Elbert H. Ahlstrom. 1974. Role of larval stages in systematic investigations of marine teleosts: The Myctophidae, a case study. Fish. Bull., U.S., 72(2): 391-413.
- Moser, H. G., E. H. Ahlstrom, D. Kramer and E. Stevens. 1974. Distribution and abundance of fish eggs and larvae in the Gulf of California. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest., Rept., 17: 112-128.
- Mudie, Peta J. 1974. The potential economic uses of halophytes, p. 565-597. In Reinhold, Robert J. and William H. Queen (eds.) Ecology of halophytes. Academic Press, New York.
- Mudie, Peta J., Bruce Browning and John Speth. 1974. The natural resources of Los Penasquitos Lagoon and recommendations for use and development. Calif. Dept. Fish and Game, Coastal Wetland Ser., (7): 3-75.
- Nemoto, Takahisa, Edward Brinton and Masakuni Araki. 1973. Clinal variation in the frequency of one- and two-spined forms of *Thysanoessa inermis* (Krøyer, 1849) (Euphausiacea) in the North Pacific. Crustaceana, 24(3): 318-322.
- Norberg, Ralph H. 1974. Review of the pelagic wet-fisheries for 1971 and 1972. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest. Rept., 17: 30-31.
- Owen, Robert W., Jr. 1973. The effect of particles of light scattering in the sea. Oceanogr. Soc. Jap., J., 29: 171-184.
- \_\_\_\_\_. 1974a. Distribution of primary production, plant pigments, and secchi depth in the California Current region, 1969. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest., Atlas, (20): 11-14, 20 charts.
- \_\_\_\_\_. 1974b. Optically effective area of particle ensembles in the sea. Limnol. Oceanogr., 19(4): 584-590.
- Owen, R. W., Jr., and C. K. Sanchez. 1974. Phytoplankton pigment and production measurements in the California Current region, 1969-72. U.S. NOAA, NMFS, Data Rept., (91): 1-185.
- Parrish, Richard H. 1973. The California sablefish fishery for the period 1953-1969. Calif. Fish and Game, 59(3): 168-177.
- \_\_\_\_\_. 1974. Exploitation and recruitment of Pacific mackerel, *Scomber japonicus*, in the northeastern Pacific. Mar. Res. Comm., Calif. Coop. Ocean. Fish. Invest., Rept., 17: 136-140.

- Patzert, William C. 1973. Current meter data: An indication of either subtropical countercurrent or anticyclonic island circulation. *J. Geophys. Res.*, 78(33): 7919-7922.
- \_\_\_\_\_. 1974a. Seasonal reversal in Red Sea circulation, p. 55-89. In *Cent. Nat. Explor. Ocean (CNEXO)*, Publ., Ser.: Actes de Colloques, 2. Symp. Ass. Int. Sci., Physiq. Ocean (IAPSO), Paris.
- \_\_\_\_\_. 1974b. Volume and heat transports between the Red Sea and the Gulf of Aden, and notes on the Red Sea heat budget, p. 191-201. *ibid.*
- \_\_\_\_\_. 1974c. Wind-induced reversal in Red Sea circulation. *Deep-Sea Res.*, 21: 109-121.
- Patzert, William C., and K. Wyrtki. 1974. Anticyclonic flow around the Hawaiian Islands indicated by current meter data. *J. Phys. Oceanogr.*, 4(4): 673-676.
- Pedrin, Oscar, and Howard Shainberg. 1974. A brief survey of the sardine and anchovy populations at Vizcaino Bay, and the sardine fishery of Cedros Island, Baja California. *Calif. Fish and Game*, 60(4): 199-204.
- Perrin, W. F., R. W. Warner, C. L. Fiscus and D. B. Holts. 1973. Stomach contents of porpoise, *Stenella* spp., and yellowfin tuna, *Thunnus albacares*, in mixed-species aggregations. *Fish Bull.*, U.S., 71(4): 1077-1092.
- Provasoli, L., and A. F. Carlucci. 1974. Vitamins and growth regulators, p. 741-787. In W. D. P. Steward (ed.) *Algal physiology and biochemistry*. Blackwell Scientific Publ., Oxford.
- Pulsifer, Janet. 1975. Some techniques for mounting copepods for examination in a scanning electron microscope. *Crustaceana* 28(1): 101-105.
- Reid, Joseph L. 1973a. Deep ocean circulation, p. 203-217. In Richard C. Vetter (ed.) *Oceanography: The last frontier*. Basic Books, Inc., New York. (Also paperback ed. Voice of Amer. Forum Ser., Wash. D.C., 1974.)
- \_\_\_\_\_. 1973b. Northwest Pacific Ocean waters in winter. *Johns Hopkins Oceanogr. Stud.*, 5: 1-96.
- \_\_\_\_\_. 1974. Deep Pacific circulation inferred from the density-field and water characteristics. *Amer. Geophys. Union, Trans.*, 56(12): 1134. (Abstr.)
- \_\_\_\_\_. 1975. A review of the physical oceanography of the southern California offshore region, p. 91. In Robert J. Lavenberg and Sylvia A. Earle (eds.) *Recommendation for baseline research in southern California relative to offshore resource development*, Conf. and Workshop, Long Beach, Calif. 5-7 Dec. 1974. So. Calif. Acad. Sci., Proc., Spec. Pub.: 1-258. (Abstr.)
- Reid, Joseph L., and Peter F. Lonsdale. 1974. On the flow of water through the Samoan passage. *J. Phys. Oceanogr.*, 4(1): 58-73.
- Reid, J. L., W. D. Nowlin, H. J. McLellan and W. C. Patzert. 1973. Deep and bottom flow in the southwest Atlantic. *Amer. Geophys. Union, Trans.*, 54(4): 313. (Abstr.)
- Rothschild, B. J. 1973. Questions of strategy in fishery management and development. *Fish. Res. Bd. Can.*, J., 30(12) pt. 2: 2017-2030.
- \_\_\_\_\_. 1974. Fishery potential from the oceanic regions, p. 95-106. In Charles B. Miller (ed.) *The biology of the oceanic Pacific*: Proc. 33rd Ann. Biol. Colloq. Oregon St. Univ. Press, Corvallis.
- Sakagawa, Gary T. 1974. Participation by Panamanian and U.S. seiners in 1972 tuna fishery of the eastern tropical Atlantic. *Mar. Fish. Rev.*, 36(3): 10-13.
- \_\_\_\_\_. 1975. The purse seine fishery for bluefin tuna in the northwestern Atlantic. *Mar. Fish. Rev.*, 37(3): 1-8.
- Schmitt, W. R., C. K. Stidd and J. D. Isaacs. 1975. Ice ages and northern forests, p. 117-119. In G. Weller and S. A. Bowring (eds.) *Climate of the Arctic*. Geophys. Inst., Univ. Alaska Press, College, Alaska.
- Schulenberger, E., and R. Hessler. 1974. Scavenging abyssal benthic amphipods trapped under oligotrophic central North Pacific gyre waters. *Mar. Biol.*, 28: 185-187.
- Sessions, M. H., W. R. Gryan and T. P. Barnett. 1974. AXBT calibration and operation for NORPAX pole experiment. Scripps Inst. Oceanogr. SIO Ref., (74-31).
- Seymour, R. J., and J. D. Isaacs. 1974. Tethered float breakwaters, p. 55-72. In T. Kowalski (ed.) *Floating Breakwater Conference*, Newport, R.I., 23-25 April, Proc., R.I. Univ., Mar. Tech. Rept. Ser., (24). (Also Calif. Univ. Inst. Mar. Res., IMR Ref., (74-9) and Sea Grant Publ. (30)).
- Sholkovitz, E., and A. Soutar. 1975. Changes in the composition of the bottom water of the Santa Barbara basin: Effect of turbidity currents. *Deep-Sea Res.*, 22: 13-21.
- Sims, J. J., W. H. Fenical, R. M. Wing, and P. Radlick. 1973. Marine natural products. 4. Prepacifenol, a unique sesquiterpene and precursor to pacifenol. *Amer. Chem. Soc.*, J., 95: 972.
- Sims, J. J., C. H. Y. Lin, R. M. Wing and W. H. Fenical. 1973. Marine natural products. 9. Concinndiol, a bromo-diterpene alcohol from the red alga, *Laurencia concinna*. *Chem. Soc. (London) Chem. Comm.*, J.; 470-471.
- Smith, K. L., Jr., and R. R. Hessler. 1974. Respiration of benthopelagic fishes: In situ measurements at 1230 meters. *Science*, 184: 72-73.
- Smith, Paul E. 1974. Distribution of zooplankton volumes in the California Current region, 1969. *Mar. Res. Comm.*, Calif. Coop. Ocean. Fish. Invest., Atlas, (20): 15-17, 8 charts.
- Soutar, A., and J. D. Isaacs. 1974. Abundance of pelagic fish during the 19th and 20th centuries as recorded in anaerobic sediment off the Californias. *Fish. Bull.*, U.S., 72(2): 257-274.
- Spratt, Jerome D. 1973a. Age and length composition of northern anchovies (*Engraulis mordax*) landed in California for reduction during the 1970-71 season. *Calif. Fish and Game*, 59(2): 121-123.
- \_\_\_\_\_. 1973b. Age and length composition of northern anchovies, *Engraulis mordax*, in the California reduction fishery for the 1971-72 season. *Calif. Fish and Game*, 59(4): 293-298.
- Squire, James L., Jr. 1974a. Angler catch rates of billfishes in the Pacific Ocean. *Int. Billfish Sump.*, Kailua-Kona, Hawaii, 9-12 Aug. 1972, Proc., pt. 2. Review and Contrib. Pap. U.S. NOAA Tech. Rept., NMFS SSRF, (675): 290-295.
- \_\_\_\_\_. 1974b. Catch distribution and related sea surface temperature for striped marlin (*Tetrapturus audax*) caught off San Diego, Calif. *Ibid.* U.S. NOAA Tech. Rept., NMFS SSRF, (675): 188-193.
- \_\_\_\_\_. 1974c. Migration patterns of Istiophoridae in the Pacific Ocean as determined by cooperative tagging programs. *Ibid.* U.S. NOAA Tech. Rept., NMFS SSRF, (675): 226-237.
- Stewart, G. L., J. R. Beers and C. Knox. 1973. Application of holographic techniques to the study of marine plankton in the field and in the laboratory. *Soc. Photo-Opt. Instrum. Eng., Proc.*, 41: 183-188.
- Sunada, John S. 1974. Age and growth of the Pacific saury, *Cololabis saira*. *Calif. Fish and Game*, 60(2): 64-73.
- \_\_\_\_\_. 1975. Age and length composition of northern anchovies, *Engraulis mordax*, in the 1972-73 season California anchovy reduction fishing. *Calif. Fish and Game*, 61(3): 133-143.
- Sunada, John S., Eric H. Knaggs and Robert N. Lea. 1975. Notes on some fishes collected off the outer coast of Baja California. *Calif. Fish and Game*, 61(1): 57-59.
- Tasto, Robert N. 1973. A status report on the jack mackerel tagging program. *Calif. Dept. Fish and Game, Mar. Res. Adm. Rept.*, (73-8): 1-8.
- \_\_\_\_\_. 1974. Marine bivalves of the California coast. *Calif. Dept. Fish and Game, Mar. Res. Leafl.*, (6): 1-23.
- Taft, B. A., B. M. Hickey, C. Wunsch and D. J. Baker, Jr. 1974. Undercurrent and deeper flows in the central Pacific. *Deep-Sea Res.*, 21: 403-430.
- Taft, B. A., A. R. Robinson and W. J. Schmitz, Jr. 1973. Current path and bottom velocity of the Kuroshio. *J. Phys. Ocean.*, 3: 347-350.
- Theilacker, G. H., and R. Lasker. 1974. Laboratory studies of predation by euphausiid shrimps on fish larvae, p. 287-299. In J. H. S. Blaxter (ed.) *The early life history of fish*. Int. Symp. Dunstaffnage Mar. Res. Lab., Scot. Mar. Biol. Ass., Oban, Scotland, May 17-23, Proc. Springer-Verlag, Berlin.

- Thiel, Hjalmar, and Robert R. Hessler. 1974. Ferngesteuertes Unterwasserfahrzeug erforscht Tiefseeboden UMSCHAU in Wissenschaft und Technik 74, 14: 451-453.
- Tont, Sargun A., and Gerald L. Wick. 1973. Response of a deep scattering layer to the 1972 total solar eclipse. Deep-Sea Res., 20: 769-771.
- Tsuchiya, Mizuki. 1974a. Variation of the surface geostrophic flow in the eastern intertropical Pacific Ocean. Fish. Bull., U.S., 72(4): 1075-1086.
- \_\_\_\_\_. 1974b. Reply (to S. Levitus comment on "Subsurface north equatorial counter-current in the eastern Pacific Ocean" by M. Tsuchiya). J. Geophys. Res., 79(18): 2759-2760.
- Veeh, H. H., A. Soutar and W. C. Burnett. 1973. Contemporary phosphorites on the continental margin of Peru. Science, 181: 844-845.
- Vlymen, William J., III. 1974. Swimming energetics of the larval anchovy, *Engraulis mordax*. Fish. Bull., U.S., 72(4): 885-899.
- Weare, N. M., F. Azam, T. H. Mague and O. Holm-Hansen. 1974. Micro-autoradiographic studies of the marine phycobionts *Rhizosolenia* and *Richelia*. J. Phycol., 10(3): 369-371.
- Wick, Gerald L. 1974a. Earth 2020. New Sci., 63(915): 747-748.
- \_\_\_\_\_. 1974b. Isotope separation. *Ibid.*, 63(911): 470-471.
- \_\_\_\_\_. 1974c. The lesson of L.A. *Ibid.*, 64(926): 758-759.
- \_\_\_\_\_. 1974d. Salinity power. *Ibid.*, 64(922): 434-435.
- \_\_\_\_\_. 1974e. Suspicions limit free ocean research. Los Angeles Times, 21 Jul. 1974, pt. 8, p. 5.
- \_\_\_\_\_. 1975a. A boost for alcohol. New Sci., 65(933): 220-221.
- \_\_\_\_\_. 1975b. The genesis of a tornado. *Ibid.*, 65(936): 396-397.
- \_\_\_\_\_. 1975c. Proposition 20. *Ibid.*, 66(946): 207-208.
- \_\_\_\_\_. 1975d. Salt in the earth. *Ibid.*, 65(941): 729-730.
- \_\_\_\_\_. 1975e. Take squid now. *Ibid.*, 66(951): 519.
- Wick, G. L., and J. D. Isaacs. 1974. Tungus event revisited. Nature, 247(5437): 139.
- Wilson, George D., and Robert R. Hessler. 1974. Some unusual Paraselloidea (Isopoda, Asellota) from the deep benthos of the Atlantic. Crustaceana, 27(1): 47-67.
- Wooster, Warren S., and Oscar Guillen. 1974. Características de "El Niño" en 1972. Inst. del Mar del Perú, Bol., 3(2): 44-71. (Also, J. Mar. Res., 32(3): 387-404. (In English))
- Young, D. R., J. D. Isaacs, J. N. Johnson and A. Soutar. 1973. Mercury concentrations in dated varved marine sediments collected off southern California. Nature, 244(5415): 273-275.