

PUBLICATIONS

January 1 through December 31, 1985

- Abbott, M.R., and P.M. Zion. 1985. Satellite observations of phytoplankton variability during an upwelling event. *Cont. Shelf Res.* 4:661-680.
- Bakun, A. 1985. Comparative studies and the recruitment problem: searching for generalizations. *Calif. Coop. Oceanic Fish. Invest. Rep.* 26:30-40.
- Baumgartner, T., V. Ferreira, H. Schrader, and A. Soutar. 1985. A 20-year varve record of siliceous phytoplankton variability in the central Gulf of California. *Mar. Geol.* 64:113-129.
- Baumgartner, A., V. Ferreira, A. Soutar, H. Schrader, and P. Morena. 1985. Sedimentologic implications of the reconstructed twentieth century varve record for the central Gulf of California, EOS-AGU, San Francisco. (Abstract)
- Boehlert, G.W., and M.M. Yoklavich. 1985. Larval and juvenile growth of sablefish, *Anoplopoma fimbria*, as determined from otolith increments. *Fish. Bull.*, U.S. 83:475-481.
- Bowman, T.E., S.P. Garner, R.R. Hessler, T.M. Iliffe, and H.L. Sanders. 1985. Mictacea, a new order of Crustacea Peracarida. *J. Crust. Biol.* 5:74-78.
- Brinton, E. 1985. The oceanographic structure of the eastern Scotia Sea - III. Distributions of euphausiid species and their developmental stages in 1981 in relation to hydrography. *Deep-Sea Res.* 32:1153-1180.
- Carlucci, A.F., D.B. Craven, and S.M. Henrichs. 1985. Surface film microheterotrophs: amino acid metabolism and solar radiation effects on their activities. *Mar. Biol.* 85:13-22.
- Culver, B., L.H. Hreha, and T. Dickerson. 1985. Pacific coast fishery review reports, albacore fishery in 1984 - Appendix 2. *In* R.G. Porter (ed.), 37th Ann. Rep. Pac. Mar. Fish. Comm., p. 17-18.
- Duffy, J.M., and H.J. Bernard. 1985. Milkfish, *Chanos chanos* (Forsskal, 1775), taken in southern California adds new family (Chanidae) to the California marine fauna. *Calif. Fish Game.* 71(2):12-125.
- Eppley, R.W., E. Stewart, M.R. Abbott, and U. Heyman. 1985. Estimating ocean primary production from satellite chlorophyll: introduction to regional differences and statistics for the Southern California Bight. *J. Plankton Res.* 7:57-70.
- Faurot, E.R. 1985. Haulout behavior of California sea otters, *Enhydra lutris*. *Mar. Mamm. Sci.* 1(4):337-339.
- Fiedler, P.C., G.B. Smith, and R.M. Laurs. 1985. Fisheries applications of satellite data in the eastern North Pacific. *Mar. Fish. Rev.* 46(3):1-13.
- Fleminger, A. 1985. Dimorphism and possible sex change in copepods of the family Calanidae. *Mar. Biol.* 88:273-294.
- Fuhrman, J.A., R.W. Eppley, A. Hagstrom, and F. Azam. 1985. Diel variations in bacterioplankton, phytoplankton and related parameters in the Southern California Bight. *Mar. Ecol. Prog. Ser.* 27:9-20.
- Guillemot, P.J., R.J. Larson, and W.H. Lenarz. 1985. Seasonal cycles of fat and gonad volume in five species of northern rockfish (Scorpaenidae: *Sebastes*). *Fish. Bull.*, U.S. 83(3):299-311.
- Hanon, D.A. 1985. California Department of Fish and Game marine mammal study; annual report for the period July 1, 1982-June 30, 1983. NMFS, SWFC Admin. Rep. LJ-85-10 C, 76 p.
- Haurly, L.R., J.A. McGowan, and E.L. Venrick. 1985. Biological characteristics of the Southern California Bight transition zone in summer 1985. *EOS. Trans. Am. Geophys. Union* 55(51):1259.
- Hayward, T.L., and J.A. McGowan. 1985. The relation between spatial patterns of chlorophyll, primary production, macrozooplankton biomass, and physical structure in the central North Pacific. *J. Plankton Res.* 7:147-167.
- Hessler, R.R. 1985. Swimming in Crustacea. *Trans. R. Soc. Edinb.: Earth Sci.* 76:115-122.
- Hessler, R.R., W.M. Smithey, and C.H. Keller. 1985. Spatial and temporal variation of giant clams, tube worms and mussels at deep-sea hydrothermal vents. *Bull. Biol. Soc. Wash. No.* 6:411-428.
- Hewitt, R.P., G.H. Theilacker, and N.C.H. Lo. 1985. Causes of mortality in young jack mackerel. *Mar. Ecol.* 26(1-2):1-10.
- Hill, S.H., M.R. Abbott, and K.L. Denman. 1985. A computer controlled turbidostat for the culture of planktonic algae. *Can. J. Fish. Aquat. Sci.* 42:744-753.
- Hunter, J.R., and B.J. Macewicz. 1985. Rates of atresia in the ovary of captive and wild northern anchovy, *Engraulis mordax*. *Fish. Bull.*, U.S. 83(2):119-136.
- Hunter, J., and R. Nicholl. 1985. Visual threshold for schooling in northern anchovy, *Engraulis mordax*. *Fish. Bull.*, U.S. 83(3):235-242.
- Laurs, R.M. 1985. Application of satellite remote sensing to U.S. fisheries. *In* W. Kato (ed.), Ocean space utilization. Proc. Intern. Symp. Nikon University, Tokyo, Japan, June 1985. Springer-Verlag, Tokyo, 1:755-763.
- Laurs, R.M., and J.T. Brucks. 1985. Living marine resources applications. *Adv. Geophys.* 27:419-452.
- Laurs, R.M., R. Nishimoto, and J.A. Wetherall. 1985. Frequency of increment formation on sagittae of North Pacific albacore (*Thunnus alalunga*). *Can. J. Fish. Aquat. Sci.* 42:1552-1555.
- Lea, R.N., and D.J. Miller. 1985. Shark attacks off the California and Oregon coasts: an update, 1980-84. *Mem. South. Calif. Acad. Sci.* 9:136-150.
- Lea, R.N., and M. Vojkovich. 1985. Record of the Pacific burrfish from southern California. *Bull. South. Calif. Acad. Sci.* 84(1):46-47.
- Lo, N.C.H. 1985. Egg production of the central stock of northern anchovy, *Engraulis mordax*, 1951-82. *Fish. Bull.*, U.S. 83(2):137-150.
- Lynn, R.J. 1985. The subarctic and subtropical fronts in the eastern North Pacific Ocean in spring. *J. Phys. Oceanogr.* 16:209-222.
- Lynn, R.J., and J.J. Simpson. 1985. Seasonal variability in the spatial distribution of physical characteristics in the California current. *EOS.* 66(46):928. (Abstract)
- Mackas, D.L., K.L. Denman, and M.R. Abbott. 1985. Plankton patchiness; biology in the physical vernacular. *Bull. Mar. Sci.* 37:652-674.
- Marin, V., and T. Antezana. 1985. Species composition and relative abundance of copepods in Chilean fjords. *J. Plankton Res.* 7:961-966.
- McGowan, J.A. 1985. El Niño in the Southern California Bight. *In* W.W. Wooster and D.L. Fluharty (eds.), El Niño North; Niño effects in the Eastern Subarctic Pacific Ocean. Washington Sea Grant Program, Univ. Wash. Seattle, p. 166-184.
- McGowan, J.A., and P.W. Walker. 1985. Dominance and diversity maintenance in an oceanic ecosystem. *Ecol. Monogr.* 55 (1):103-118.
- McLain, D.R., J. Norton, and R. Brainard. 1985. Anomalous

- warm events in eastern boundary current systems. Calif. Coop. Oceanic Fish. Invest. Rep. 26:51-64.
- Niiler, P.P. 1985. Utilization of DMSP/SSM/I and GEOSET altimeter for air sea interaction studies: Report of the NASA energy fluxes scientific working group. Nova University/NYIT Press, Fort Lauderdale, Fla.
- Niiler, P.P., and C.J. Koblinsky. 1985. A local time-dependent Sverdrup balance in the Eastern North Pacific Ocean. *Science* 229:754-756.
- Niiler, P.P., and C.K. Tai. 1985. Modeling large-scale instabilities in the Kuroshio Extension. *Dyn. Atmos. Oceans* 4:359-382.
- Niiler, P.P., W.J. Schmitz, and D-K. Lee. 1985. Geostrophic volume transport in high eddy-energy areas of the Kuroshio Extension and Gulf Stream. *J. Phys. Oceanogr.* 15(7):825-843.
- Njoku, E.G., T.P. Barnett, R.M. Laurs, and A. C. Vastano. 1985. Advances in satellite sea surface temperature measurement and oceanographic applications. *Trans. Am. Geophys. Union* 90:11.573-11.586.
- Norton, J., D.R. McLain, R. Brainard, and D.M. Husby. 1985. The 1982-83 El Niño event off Baja and Alta California and its ocean climate context. In W.W. Wooster and D.L. Fluharty (eds.), *El Niño North: Niño effects in the eastern subarctic Pacific Ocean*. Washington Sea Grant Program, Univ. Wash., Seattle, p. 44-72.
- Ohman, M.D. 1985. Resource-satiated population growth of the copepod *Pseudocalanus* sp. In W. Lampert (ed.), *Food limitation and the structure of zooplankton communities*. Arch. Hydrobiol. Beih. Ergeb. Limnol. 21:15-32.
- Parrish, R.H. 1985. Operational plan for NMFS albacore program. U.S. Dept. Commer., NOAA Tech. Memo. NOAA-TM-NMFS-SWFC-52, 31 p.
- Parrish, R.H., D.L. Mallicoate, and K.F. Mais. 1985. Regional variations in the growth and age composition of northern anchovy (*Engraulis mordax*). *Fish. Bull.* U.S. 83(4):483-496.
- Reid, F.M.H., C.B. Lange, and M.M. White. 1985. Microplankton species assemblages at the Scripps Pier from March to November, during the 1982 El Niño event. *Bot. Mar.* 28:443-452.
- Reid, J.L. 1985. Some preliminary comparisons of the South Atlantic and South Pacific circulation. *EOS. Trans. Am. Geophys. Union* 66(51):1295.
- Reilly, P.N., and T.O. Moore. 1985. Pacific herring, *Clupea harengus pallasii*, studies in San Francisco Bay and the Gulf of the Farallones, June 1984 to March 1985. Calif. Dept. Fish Game Admin. Rep. 85-4, p. 73.
- Roemmich, D.H., and C. Wunsch. 1985. Two transatlantic sections: meridional circulation and heat flux in the subtropical North Atlantic Ocean. *Deep-Sea Res.* 32:619-664.
- Sanders, H.L., R.R. Hessler, and S.P. Garner. 1985. *Hirsutia bathyalis*, a new unusual deep-sea benthic peracaridan crustacean from the tropical Atlantic. *J. Crust. Biol.* 5:30-57.
- Simpson, J.J. 1985. Air-sea exchange of carbon dioxide and oxygen induced by phytoplankton: methods and interpretation. In Alberto Zirino (ed.), *Mapping strategies in chemical oceanography*. Am. Chem. Soc. Adv. Chem. Ser. 209, Washington, D.C., p. 409-450.
- . 1985. Warm and cold episodes in the California Current: a case for large-scale mid-latitude atmospheric forcing. In *Proceedings of the Ninth Annual Climate Diagnostics Workshop* (22-26 October 1984, Corvallis, Oreg.). Washington, D.C., U.S. Department of Commerce, NOAA, p. 173-184.
- Simpson, J.J., and R.J. Lynn. 1985. A vortex doublet in the offshore California Current. *EOS.* 66(46):924. (Abstract)
- . 1985. A vortex doublet and giant streamer in the offshore California Current. *EOS.* 66(51):1258. (Abstract)
- Smithy, W.M., and R.R. Hessler. 1985. Megafaunal distribution at deep-sea-hydrothermal vents: an integrated photographic approach. In J.D. George, G.I. Lythgoe, and J.N. Lythgoe (eds.), *Underwater photography and television for scientists*. Oxford University Press, p. 165-176.
- Soutar, A., J. Singleton, S. Rau, M. Butler, R. Zaneveld, T. Baumgartner, E. Duffrin, and T. Folsom. 1985. Environmental time series measurement in the central Gulf of California—small vessel instrument adaptation. *Oceans* 85, San Diego, p. 635-643.
- Spratt, J.D. 1985. Biomass estimates of Pacific herring, *Clupea harengus pallasii*, in California from the 1984-85 spawning-ground surveys. Calif. Dept. Fish Game Admin. Rep. 85-2, p. 27.
- . 1985. Biological characteristics of the catch from 1984-85 Pacific herring, *Clupea harengus pallasii*, roe fishery in California. Calif. Dept. Fish Game Admin. Rep. 85-3, p. 20.
- Sunada, J.S., and R.B. Read. 1985. The northern anchovy reduction fishery for the 1978-79 through 1981-82 seasons. Calif. Dept. Fish Game, Mar. Res. Tech. Rep. No. 49, p. 28.
- Sund, P. N. 1985. Albacore fishing and windspeed. U.S. Department Commer., NOAA Tech. Memo., NOAA-TM-NMFS-SW FC-53, 18 p.
- Thomas, D.H. 1985. A possible link between coho (silver) salmon enhancement and a decline in central California Dungeness crab abundance. *Fish. Bull.* 83:682-691.
- Venrick, E.L. 1985. Disturbance as a mechanism for maintaining phytoplankton diversity in the open sea. *EOS. Trans. Am. Geophys. Union* 66(51):1272.
- . 1985. Patchiness and the paradox of the plankton. Abstract vol., Intl. Congr. Pelagic Biogeography, 29 May-5 June 1985, Amsterdam, The Netherlands, p. 44.
- Venrick, E.L., and T.L. Hayward. 1985. Evaluation of some techniques for preserving nutrients in stored seawater samples. Calif. Coop. Oceanic Fish. Invest. Rep. 26:160-168.
- Ward, B.B., and A.F. Carlucci. 1985. Ammonia- and nitrite-oxidizing bacteria: serological diversity determined by immunofluorescence in culture and in the environment. *Appl. Environ. Microbiol.* 50:194-201.
- Warner, R.W. 1985. Age and growth of male Dungeness crabs, *Cancer magister*, in northern California. In *Proceedings of the Symposium on Dungeness Crab Biology and Management*. Lowell Wakefield Fish. Symp. Ser., Univ. Alaska, Sea Grant Rep. 85-3, p. 185-187.
- . 1985. Overview of the California Dungeness crab, *Cancer magister*, fisheries. In *Proceedings of the Symposium on Dungeness Crab Biology and Management*. Lowell Wake Fish. Symp. Ser., Univ. Alaska, Sea Grant Rep. 85-3, p. 185-187.
- Wolf, P. 1985. Status of the spawning biomass of the Pacific sardine 1984-85. Calif. Dept. Fish Game, Mar. Res. Admin. Rep. 85-1, 20 p.
- Wolf, P., and P.E. Smith. 1985. An inverse egg production method for determining the relative magnitude of Pacific sardine spawning biomass off California. Calif. Coop. Oceanic Fish. Invest. Rep. 26:130-138.
- Wunsch, C., and D.H., Roemmich. 1985. Is the North Atlantic in Sverdrup balance? *J. Phys. Oceanogr.* 15:1876-1880.