



Zooplankton of Estuaries

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Distribution and species composition

Cronin, L. E., J. C. Daiber, and E. M. Hulbert. 1962. Quantitative seasonal aspects of zooplankton in the Delaware River estuary. *Chesapeake Science* 3:63-93.

Jeffries, H. P. 1969. Succession of two *Acartia* species in estuaries. *Limnology and Oceanography* 14:354-364.

Miller, C. B. 1983. The zooplankton of estuaries. Pages 103-149 in B. H. Ketchum, editor. *Estuaries and enclosed seas*. Elsevier, Amsterdam.

Paffenhöfer, G.-A., and D. E. Stearns. 1988. Why is *Acartia tonsa* (Copepoda: Calanoida) restricted to nearshore environments? *Marine Ecology Progress Series* 42:33-38.

Ueda, H. 1991. Horizontal distributions of planktonic copepods in inlet waters. Pages 143-160 in S.-I. Uye, S. Nishida, and J.-S. Ho, editors. *Proceedings of the fourth international conference on Copepoda*. Bull. Plankton Soc. Japan, Spec. Vol., Hiroshima.

Laprise, R., and J. J. Dodson. 1993. Nature of environmental variability experienced by benthic and pelagic animals in the St. Lawrence Estuary, Canada. *Marine Ecology Progress Series* 94:129-139.

Advection, Retention, and Migration

Rogers, H. 1940. Occurrence and retention of plankton within an estuary. *Journal of the Fisheries Research Board of Canada* 5:164-171.

Ketchum, B. H. 1954. Relation between circulation and planktonic populations in estuaries. *Ecology* 35:191-200.

Cronin, T. W., and R. B. Forward, Jr. 1979. Tidal vertical migration: an endogenous rhythm in estuarine crab larvae. *Science* 205:1020-1022.

Wooldridge, T., and T. Erasmus. 1980. Utilization of tidal currents by estuarine zooplankton. *Estuarine and Coastal Marine Science* 11:107-114.

Hough, A. R., and E. Naylor. 1992. Distribution and position maintenance behaviour of the estuarine mysid *Neomysis integer*. *Journal of the Marine Biological Association of the U.K.* 72:869-876.

Physical factors

- Runge, J. A., and Y. Simard. 1990. Zooplankton of the St-Lawrence Estuary - the imprint of physical processes on its composition and distribution. Pages 296-320 in M. I. El-Sabh and N. Silverberg, editors. Oceanography of A Large-scale Estuarine System. Springer, New York.
- Laprise, R., and J. J. Dodson. 1994. Environmental variability as a factor controlling spatial patterns in distribution and species diversity of zooplankton in the St. Lawrence Estuary. Marine Ecology Progress Series 107:67-81.

Predation

Kremer, P. 1979. Predation by the ctenophore *Mnemiopsis leidyi* in Narragansett Bay, R.I. Estuaries 2:97-105.

Deason, E. E., and T. J. Smayda. 1982. Ctenophore-zooplankton-phytoplankton interactions in Narragansett Bay, Rhode Island, USA during 1972-1977. J. Plankt. Res. 4:203-217.

Fulton, R. S., III. 1984. Predation, production and the organization of an estuarine copepod community. Journal of Plankton Research 6:399-415.

Kimmerer, W. J. 1991. Predatory influences on copepod distributions in coastal waters. Pages 161-174 in S.-I. Uye, S. Nishida, and J.-S. Ho, editors. Proceedings of the fourth international conference on Copepoda. Bull. Plankton Soc. Japan, Spec. Vol., Hiroshima.

Purcell, J. E. 1992. Effects of predation by the scyphomedusan *Chrysaora quinquecirrha* on zooplankton populations in Chesapeake Bay, USA. Marine Ecology Progress Series 87:65-76.

Production and Feeding

Heinle, D. R. 1966. Production of a calanoid copepod, *Acartia tonsa*, in the Patuxent River estuary. Chesapeake Science 7:59-74.

Heinle, D. R., R. P. Harris, J. F. Ustach, and D. A. Flemer. 1977. Detritus as food for estuarine copepods. Marine Biology 40:341-353.

Durbin, E. G., A. G. Durbin, T. J. Smayda, and P. G. Verity. 1983. Food limitation of production by adult *Acartia tonsa* in Narragansett Bay, Rhode Island. Limnology and Oceanography 28:1199-1213.

Kimmerer, W. J., and A. D. McKinnon. 1987. Growth, mortality, and secondary production of the copepod *Acartia tranteri* in Westernport Bay, Australia. Limnology and Oceanography 32:14-28.

Microzooplankton

Verity, PG (1986). Growth rates of natural tintinnid populations in Narragansett Bay. *Marine Ecology Progress Series* 29: 117-126.

Heinbokel, JF; Coats, DW; Henderson, KW; Tyler, MA. (1988). Reproduction rates and secondary production of three species of the rotifer genus *Synchaeta* in the estuarine Potomac River. *Journal of Plankton Research* 10: 659-672.

Dolan, J. R., and C. L. Gallegos. 1991. Trophic coupling of rotifers, microflagellates, and bacteria during fall months in the Rhode River Estuary. *Marine Ecology Progress Series* 77:147-156.

McManus, GB; Ederington-Cantrell, MC (1992). Phytoplankton pigments and growth rates, and microzooplankton grazing in a large temperate estuary. *Marine Ecology Progress Series*. 87: 77-85.

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