

Fisheries Management and Predator-Prey Systems

"Predator-Prey Systems in Fisheries Management", edited by Henry Clepper and published by the Sport Fishing Institute, presents the proceedings of the First International Symposium on Predator-Prey Systems in Fish Communities and Their Role in Fisheries Management held in July 1978 in Atlanta, Ga.

The 40 chapters are contained in eight sections (meeting sessions) with floor discussions at the end of each. The introductory session focused on fisheries management and the global future with an overview of predator-prey relations in fishes. The second session, "Influence of abiotic variables on predator-prey structure," deals with an "optimal" environment and with the effects of weather, climate, and physical and chemical alterations on fisheries and predator-prey dynamics. Session III, "Influence of predators on structure of aquatic ecosystems," is divided into three parts: Marine ecosystems, lake and pond ecosystems, and stream and river ecosystems. Marine ecosystem chapters deal with multilevel system effects of predation, predator-prey interactions in the eastern Bering Sea and in estuarine areas, and predation's role in structuring reef fish communities.

Contributions to "Patterns of predation," Session IV, include optimal foraging in fish, food selection by plankton feeding fishes, prey selection by benthic feeders, interactions between piscivorous fishes and their prey, predation patterns in generalist feeders and in simple and complex environments, relationships between habitat and feeding mechanisms in fishes, and predator-prey models for fisheries management.

Session V, "Competition, diversity, and food supply," contains contributions on resource partitioning, niche partitioning by food size, habitat partitioning and competition, factors that influence the abundance of large piscivorous fish, and behavioral response of prey to fish predators.

"Potential management strategies," Session VI, includes use of predator-prey relationships in fisheries management, managing pelagic schooling prey species, management to increase anadromous salmon production, food consumed by continental shelf fishes, natural lake fish management strategy, controlling predator-prey relationships in streams, and predator-prey systems in large reservoirs. Final chapters, Session VII, examine predator-prey relationships in management of small impoundments, trophic dynamics of a freshwater artificial tire reef, and

predator-prey dynamics among wall-eye and bluegill. Session VIII presents a summary of the symposium.

Copies of the book may be purchased from the Sport Fishing Institute, 608 13th St., N.W., Suite 801, Washington, DC 20005. The price is \$20, postpaid (\$23 outside the United States) and air parcel postage is additional. Payment must accompany each order.

Marine Ecology Now A Quarterly Journal

Marine Ecology - Progress Series, edited by O. Kinne of the Biologische Anstalt Helgoland in Hamburg, Germany, has been started as a quarterly journal to succeed the book series entitled "Marine Ecology - A Comprehensive, Integrated Treatise on Life in Oceans and Coastal Waters." The new journal publishes both original papers and reviews in five general areas: Environmental factors, physiological mechanisms, cultivation, dynamics, and ocean management. Price per volume (four issues) is listed as 195 DM. For ordering information, contact Inter-Research, P.O. Box 1121, 2083 Halstenbek, Federal Republic of Germany.

NMFS TECHNICAL REPORTS AVAILABLE

NOAA Technical Report NMFS SSRF-729. Dows, Richard E. **"References for the identification of marine invertebrates on the southern Atlantic coast of the United States."** April 1979. 37 p.

ABSTRACT

This collection of 638 citations provides an entry to the taxonomic literature on invertebrates of the continental shelf and estuaries from the Chesapeake Bay to north-eastern Florida. Many of the citations are annotated and most include a list of North Carolina libraries in which they can be found. Author and systematic indices are provided.

NOAA Technical Report NMFS SSRF-731. Hoff, James G. **"Annotated bibliography and subject index on the shortnose sturgeon, *Acipenser brevirostrum*."** April 1979. 16 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

ABSTRACT

This bibliography consists of 165 references on the classification, distribution, abundance, life history, and ecology of the shortnose sturgeon, *Acipenser brevirostrum*. Brief annotations and a subject index are included for this rare and endangered species.