United States Environmental Protection Agency

Research and Development

Environmental Monitoring and Support Laboratory Cincinnati OH 45268

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## **Project Summary**

Manual for Identification of Marine Invertebrates: A Guide to Some Common Estuarine Macroinvertebrates of the Big Bend Region, Tampa Bay, Florida

James K. Culter

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This manual addresses 233 of the most common taxa (196 species) in the Big Bend Regions of Tampa Bay. These taxa are also found in large regions of the Gulf of Mexico and portions of the southeast Atlantic coast.

The guide presents the following: a list of taxa; photographs and descriptions for identifying each species; techniques of collection, preservation, and storage; a glossary; and bibliographies with references cited in the text and other publications which provide additional information on taxonomy and ecology.

This Project Summary was developed by EPA's Environmental Monitoring and Support Laboratory, Cincinnati, OH, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

## Introduction

The guide is intended to be used as an identification aid for biologists with a limited knowledge of invertebrate taxonomy as well as those with more extensive training.

Most of the macroinvertebrates described in the guide were collected from soft sediments during a thermal environmental impact study of the Big Bend Region of Tampa Bay, Florida. Taxa in-

cluded are limited to specimens that were considered common and in good condition after processing.

The guide includes 233 taxa (196 species) from fourteen of the most commonly encountered marine invertebrate phyla. Many of the taxa presented have wide distribution that includes large regions of the Gulf of Mexico as well as portions of the southeast Atlantic coast.

In addition to species descriptions, the guide discusses the geographic region covered, techniques of collection, preservation and storage, and taxonomic considerations. An extensive glossary defines the terms used in the text and also includes terms frequently used in taxonomic literature. The bibliography contains references for the less experienced investigators who require more in-depth reading.

Condensed taxonomic descriptions, presented in the order of relative abundance of species in the samples, provide the necessary information to identify a species, while photographs provide a realistic image of the animals. Such a holistic approach is valuable in obtaining rapid, preliminary identifications.

## **Taxonomic Considerations**

The guide utilizes recent classification schemes and provides a detailed systematic breakdown for those groups

that are most frequently encountered. In these cases, definitions for families are also given which may be useful in separating groups such as polychaetes, amphipods, and isopods, which may all look alike to readers who lack extensive experience with invertebrates. During benthic studies individuals are collected in all stages of growth, and juvenile specimens do not always exhibit all the characteristics needed to identify a species.

It is desirable to have taxonomic experts verify identifications. Requests for assistance should always be made in advance of sending specimens.

Identification of invertebrates requires a large, diverse terminology. In order to avoid confusion, the simplest possible terminology was used for descriptions. This, in conjunction with the various illustrations and glossary, should enable the reader to fully comprehend descriptions in the text.

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Donald J. Klemm is the EPA Project Officer (see below).

The complete report, entitled "Manual for Identification of Marine Invertebrates A Guide to Some Common Estuarine Macroinvertebrates of the Big Benc Region, Tampa Bay, Florida," (Order No. PB 86-166 352/AS; Cost: \$22.95, subject to change) will be available only from:

National Technical Information Service 5285 Port Royal Road

Springfield, VA 22161 Telephone: 703-487-4650

The EPA Project Officer can be contacted at:

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