

TAXONOMIC STANDARDIZATION PROGRAM

In 1973, the Coastal Water Project prepared a report that examined the ecology of the Southern California Bight, particularly emphasizing alterations in the kinds of animals that live around wastewater discharge sites. It later became apparent, however, that not all of the changes in invertebrate species composition reported around these sites were attributable to real environmental changes; instead, some reflected inconsistent or inaccurate identifications of the animals. At present, there are about 250 systematists studying the invertebrate communities off southern California. Comparative analyses of the data produced by these individuals are not reliable unless they have made accurate and consistent identifications. The problem is complicated by the fact that over 4,000 invertebrate species are known to occur in southern California coastal waters and only about one-third of these are adequately described in up-to-date literature sources.

Therefore, we started the Taxonomic Standardization Program to facilitate exchange of information and promote uniformly correct identifications among practicing systematists of southern California. Periodically these scientists meet to discuss taxonomic problems; between meetings they communicate by means of publications pertaining to marine invertebrates. During the past year, the Project has published two volumes of the series, "Invertebrates of Southern California Coastal Waters." Volume I contains keys and information on selected groups of annelids, arthropods, echinoderms, and molluscs; Volume II is a key to the Natantia (shrimp). A third volume dealing with Ophiuroidea (brittle stars) is forthcoming. These keys have been published in a loose-leaf format with one species per page, enabling taxonomic revisions, information on new species, and distribution records to be added without reprinting the entire key. The species pages contain illustrations, distribution records, and literature synonymies, and space is provided for the user to add his own notes.

Recent bimonthly meetings of the program have featured presentations by local experts on various groups of invertebrates. The contributions by our systematists and those from other participating organizations have greatly expanded the capabilities of the program. During the past year, the meetings have been attended by 72 representatives of 28 different organizations; 14 handouts containing corrections to existing literature, annotated bibliographies, keys and various notes have been distributed. Individuals not

able to participate directly in the program have received the information from the meetings via the "Proceedings of the Taxonomic Standardization Program," which is sent to 250 people at 85 organizations.

In the past year, we assisted several government agencies and colleges in resolving identification problems encountered in the field. In addition, meetings in the form of training sessions and consultations regarding systematic problems, invertebrate identifications and literature searches have been held with 15 of the participating groups. An extensive systematic library and comparative invertebrate museum are maintained at our taxonomy laboratory. The museum contains over 850 identified species of the most commonly encountered trawl-caught and infaunal benthic invertebrates with which the systematist may compare his material.

The Taxonomic Standardization Program has made significant progress toward standardizing the identifications of southern California invertebrates. Comparisons of data from environmental studies have become more reliable and more consistent than was previously possible as a result of these collaborative efforts.