Coastal Fishes of the Western Indian Ocean

A sample of text and illustrations by Phil and Elaine Heemstra

The Western Indian Ocean (WIO) fish fauna is one of the richest marine fish faunas in the world, with some 3 200 species or about 20% of the world marine fish fauna. Although the WIO region is the site for most of the earliest (and scientifically valid) descriptions of Indo-Pacific fishes, this fish fauna is still poorly known. Despite considerable effort by ichthyologists over the past two centuries, the taxonomy of WIO fishes is ongoing. Of the 329 new marine species described between the years 2002 and 2012, 140 were from the WIO.

The 60 collaborators from 13 countries are internationally recognised experts on marine fish taxonomy. The systematic section of this work will cover details of the classes, orders, families, genera and species of the fishes in the region. Family accounts will include keys to families, genera and species. Species accounts will include the original citation for each valid species, relevant (WIO) synonyms, information on diagnostic features, including colour patterns and variations (sexual dimorphism and ontogenetic changes), size attained, known biology, fisheries importance, and depth and geographic distribution.

Following the success of Smiths' Sea Fishes, its previous internationally collaborative project, the South African Institute for Aquatic Biodiversity (formerly the JLB Smith Institute of Ichthyology) embarked on a similar project that provides the means to identify the shallow-water fishes known from the tropical and warm-temperate waters of the entire WIO. The new work covers the area from South Africa (Cape Point [18° E] and Cape Agulhas [34° S]), to the Red Sea, Persian Gulf and west coast of India (to Cape Comorin, the southernmost point of India [-80° E]), as well as all the WIO islands north of 35° S and west of 80° E. We have restricted our attention to the fishes that occur in the upper 200 m of coastal and oceanic waters. Species known mostly from the continental slope, between 200 and 1 000 m deep, are also included if they are occasionally found in shallow water.

An illustration will be provided for as many of the species as possible, by either a photograph, drawing or painting. The artwork (of over 1 000 fishes, both colour and black and white illustrations made from specimens) is the product of a rigorous modern approach to biological illustration that requires hours of painstaking study in the field and laboratory, plus consultation between artist and scientist, to ensure accuracy of form and hue.