



Review of *New Zealand Coastal Marine Invertebrates 1*—an illustrated compendium edited by S. Cook (2010)

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Cook, S. de C. (Ed.) (2010) *New Zealand Coastal Marine Invertebrates 1*. Canterbury University Press, Christchurch. 632 pp. Hard cover, NZ\$150.

This outstanding work is the culmination of a publishing project that began twenty years ago. Originally planned as a three-year project and initiated in November 1990, the goal was to produce a single-volume identification guide, illustrating a majority of the coastal macroinvertebrate species of New Zealand. These would be species larger than one centimetre in size, found on the seashore and encountered within the depth range visited by the average scuba diver. In the event, as tends to happen with visionary projects, the time frame grew, largely owing to human factors, and a second volume will be published in 2012 to complete the series. Though a long time coming, this first volume was worth the wait—it is truly a milestone in New Zealand natural-history publishing. Canterbury University Press is to be congratulated in taking it on and the editor, who initiated and coordinated the project, in seeing it through to the end.

Volume 1 comprises an introduction and six taxonomic chapters. The latter devote 79 pages to describe and illustrate the phylum Porifera (sponges) (118 species entries), 111 pages to Cnidaria (corals, hydrozoans and jellyfish) (147 species entries), 16 pages to Ctenophora (comb jellies) (17 species entries), 10 pages to Platyhelminthes (flatworms) (7 species entries), 19 pages to Nemertea (ribbon worms) (24 species entries) and 272 pages to Mollusca (chitons, aplacophorans, gastropods, tusk shells, bivalves and cephalopods) (1187 species entries).

These statistics immediately highlight two things, viz that this volume is extraordinarily comprehensive for some groups and that some taxa are extremely poorly known in New Zealand. Phylum Platyhelminthes is a case in point. The very small chapter devoted to it deals only with polyclad flatworms, few of which are named with certainty; no fish parasites are included. It is true to say that New Zealand's marine biodiversity is still very much in the discovery phase; however, those groups that have been comprehensively studied—like Porifera, Mollusca (volume 1), Brachiopoda, Bryozoa and Echinodermata (volume 2)—have species numbers approaching or exceeding diversities of the same taxa in the area covered by the European Register of Marine Species (ERMS), which is 5.5 times larger than the New Zealand Exclusive Economic Zone (Gordon *et al.* in press). The taxonomic challenge to complete the inventory of New Zealand's marine biodiversity remains very high, but is not likely to be solved any time soon owing to the lack of training of a new generation of taxonomists to replace those ageing and dying. Hence Cook's volume represents a critical resource, at a time when it is most needed, by compiling available information and illustrations for a majority of the discoverable shallow-water species in the higher taxa covered within it.

Volume 1 has 18 authors from five countries, including, in the U.S., Stephen Cairns (Scleractinia, Stylasteridae), in the U.K. Ray Gibson (Nemertea), in Argentina Hermes Mianzan (Ctenophora), in Australia Jeanette Watson (hydroids) and Richard Willan (opisthobranchs), and in New Zealand the late Dame Patricia Bergquist (Porifera), inter alia, thus lending a considerable weight of authority to the volume.

Each taxonomic chapter comprises a colour title page, followed by one or more introductory sections explaining morphological structure and terminology, followed by the illustrated species entries. The explanatory line drawings have all been executed especially for the volume; they are either based on published figures in the literature or are original, and they are superb. Each species entry is accompanied by at least one colour photo, line drawing and/or half-tone photograph; few species are unillustrated and most descriptive pages carry one to three (sometimes more) colour photographs. Species descriptions are straightforward, practical, appropriately technical when necessary, and accompanied by abbreviated notes on habitat, abundance, depth range, distribution, synonyms and references. Photographic quality ranges from just acceptable (a minority, primarily pertaining to rare species for which available