



***Carybdea branchi*, sp. nov., a new box jellyfish (Cnidaria: Cubozoa) from South Africa**

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Abstract

A common and conspicuous member of the medusan fauna of South Africa has been the subject of repeated taxonomic confusion. After having been mistakenly identified by earlier workers as either *Carybdea alata* or *Tamoya haplonema*, this large and colourful carybdeid is described herein as *Carybdea branchi*, **sp. nov.** It is distinguished from its congeners on numerous characters: body to about 8cm in life, densely scattered with nematocyst warts over the whole body and abaxial keels of the pedalia; a bulge or lateral thorn on the pedalial canal bend; with 2 dendritic velarial canals per octant, highly diverticulated; with a long manubrium; with greatly bushy epaulette-like phacellae, comprising 20 or more roots tightly clustered; with well developed mesenteries; and with conspicuous brownish pigmented areas over the proximal and distal regions of the pedalia and over the phacellae. A comparative table of the primary diagnostic characters of species in the genus *Carybdea* is given.

Keywords: Carybdeida, Carybdeidae, medusae, taxonomy, Cape Town, new species, marine stinger

Introduction

Very few references exist on the carybdeids in African waters. Species occurring there have typically been attributed to well known species from elsewhere, rather than being recognised for their unique morphology. Haeckel (1880), Uchida (1970), and Branch et al. (1994) reported “*Carybdea alata*” (= *Alatina alata* (Reynaud, 1830), see Gershwin 2005b) off South Africa, while Stiasny (1939) reported it off West Africa. From Uchida’s (1970) description, it seems quite likely that his specimen is referable to the species described below rather than to the true *A. alata*.

Haeckel (1880) described *Carybdea murrayana* from West Africa. Mayer (1910), Bigelow (1938), and Kramp (1961) considered *C. murrayana* to be conspecific with *C. marsupialis*. However, recent studies suggest otherwise (Gershwin 2005a).

Ranson (1945) reported *Carybdea marsupialis* (Linnaeus, 1758) off Algiers, North Africa; it is currently unclear if this report may be referable to *C. murrayana*, or even possibly to the new species described herein; the range limits of these two species are not yet known.

Tamoya haplonema Müller (1859) was reported in African waters by Stiasny (1934), Ranson (1949), Kramp (1955; 1959), and Pagès et al. (1992). That species is common along western Atlantic shores from Argentina to New York, and is immediately identifiable in having vertical phacellae with the cirri in bands along the perradial sides of the bag-like stomach.

A large and colourful species of *Carybdea* is common along South African shores, but has been hitherto overlooked as being new to science. The purpose of our paper is to describe this new species of box jellyfish, and in doing so, to rectify some of the mistakes that have been made historically relating to the species.