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Some shallow-water hydroids (Cnidaria: Hydrozoa) from the central east coast of Florida, USA

DALE R. CALDER

Department of Natural History, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario, Canada M5S 2C6.
E-mail: dalec@rom.on.ca

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Abstract

This paper gives a systematic account of 67 species, referable to 22 families and 40 genera, identified in a small collection of hydroids from the central Atlantic coast of Florida between Melbourne and Palm Beach. The fauna mostly comprises an assemblage of tropical western Atlantic species ranging northwards along the southeastern coast of the United States. One new species, *Lafoea intorta*, is described. Applying Reversal of Precedence provisions in zoological nomenclature, the widely-used generic name *Halopteris* Allman, 1877 is designated as valid and as a nomen protectum, while its virtually unused senior synonym *Halicornaria* Hincks, 1865 (not *Halicornaria* Allman, 1874) is reduced to a nomen oblitum. The genus *Pasya* Stechow, 1922 is resurrected for the hydroid generally known as *Dynamena quadridentata* (Ellis & Solander, 1786). *Laomedea tottoni* Leloup, 1935 is shown to be a junior objective synonym of *Clytia fragilis* Congdon, 1907, which in turn is a junior subjective synonym of *Clytia linearis* (Thornely, 1900). *Obelia oxydentata* Stechow, 1914 is recognized as distinct from *O. bidentata* Clark, 1875. *Hincksella brevitheca* Galea, 2009, first described from Cuba, is reported for only the second time; records of the species are added here from Grand Cayman Island and the Caribbean coast of Panama as well as from the Atlantic coast of Florida. Also reported for the second time is *Antennella incerta* Galea, 2010, previously known only from Guadeloupe in the Caribbean Sea. The true *Halopteris diaphana* (Heller, 1868), known from the Mediterranean Sea and from Brazil, is reported for the first time from the western North Atlantic. Earlier records of the species in the region are based on misidentifications of *H. alternata* (Nutting, 1900). Male gonothecae of *Halecium calderi* Galea, 2010 are reported and illustrated for the first time.

Key words: Anthoathecata, Capitata, Carolinian Province, Filifera, Hydroidolina, Leptothecata, marine invertebrates, taxonomy, West Atlantic Tropical Region, zoological nomenclature

Introduction

Taxonomic investigations on hydroids of the Atlantic coast of the United States and Canada have concentrated for the most part on species of New England and the Maritime Provinces, as reflected in both an historical overview and in distribution records by Fraser (1944). More than 75 scientific publications provide information on the fauna of those northern waters (Calder 1975), beginning with a synopsis by Stimpson (1853) of species around Grand Manan Island at the mouth of the Bay of Fundy. By comparison, fewer than half that number have dealt with hydroids occurring south of Cape Hatteras, North Carolina (Calder 1983). One of the least studied areas along the entire eastern seaboard of North America is the central coast of Florida between Cape Canaveral and Palm Beach. Reports of species from inshore and nearshore waters in the area are few and scattered in publications such as those on fouling organisms (Nelson *et al*. 1994; Pfaller *et al*. 2008), on a description of a single new species (Thomas *et al*. 1995), on other invertebrate groups (Clark & Goetzfried 1976; Winston 1982, 2010), and in general identification guides (Humann 1992; Humann & DeLoach 2002). A small number of records from the central Florida coast exist in taxonomic studies on hydroids from Louisiana and Texas (Deevey 1950) and from areas in the Florida Straits and beyond in the Gulf of Mexico (Allman 1877; Bogle 1975). Several species from the region were also mentioned in worldwide accounts on capitate hydroids by Petersen (1990) and on the hydrozoan family Halopteridae by Schuchert (1997). To date, however, no comprehensive taxonomic study on hydroids of the central Florida Atlantic coast has been published. Better known is the fauna at the southern end of the state, including the Straits of Florida and the Dry Tortugas, as well as of the Bahamas to the east and the Gulf of Mexico to the west. Even the deep-sea fauna east of the Florida peninsula, with species recorded by Nutting (1900, 1904, 1915), Fraser (1943, 1944), Bogle (1975), and Henry *et al*. (2008), among others, is better characterized than that inhabiting the nearby shelf and shore.

The objective of this study was to provide a report on a collection of hydroids from inshore and shallow shelf waters (<120 m) along the central east coast of Florida, based largely on material at the Harbor Branch Oceanographic Institution (now the Harbor Branch Oceanographic Institute of Florida Atlantic University), Fort Pierce. The study area is important biogeographically as a zone of transition between the West Atlantic Tropical Region to the south and the warm-temperate Carolinian Region to the north (Briggs 1974). Some of the material examined here provided data for an earlier biogeographic study on hydroids of the western North Atlantic (Calder 1992), but identifications of species were not given in that paper. This work represents an initial step towards knowledge of the fauna; hydroids of the region are still little studied and poorly known.