



## *Sertularella maureenae*, a new species of hydroid (Cnidaria: Hydrozoa: Sertulariidae) from the Pacific coast of Canada

HENRY H. C. CHOONG<sup>1</sup>, DALE R. CALDER<sup>2</sup>, & ANITA BRINCKMANN-VOSS<sup>2</sup>

<sup>1,2</sup>*Invertebrate Zoology Section, Department of Natural History, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario, Canada, M5S 2C6.*

<sup>2</sup>*E-mail: dalec@rom.on.ca, anitab-voss@shaw.ca*

<sup>1</sup>*Corresponding author. E-mail: henryc@rom.on.ca*

### Abstract

*Sertularella maureenae*, n. sp. (Hydrozoa: Sertulariidae), is described from the Pacific coast of Canada. The species is characterized by its predominantly stolonal colony form with pedicellate, annulated hydrothecae, together with the presence of large, ovate gonothecae having distinct annulations, a prominent neck, and 4–6 well-developed cusps surrounding the gonothecal aperture. The new species is compared to other stolonal species of the genus and to other typically erect species of Sertulariidae with reported stolonal forms. The presence of both stolonal and semi-erect colony forms with pedicellate hydrothecae within *S. maureenae*, along with its hydrothecal characters, suggests that colony form alone may be an insufficient criterion for assigning species of pedicellate *Sertularella* with individual hydrothecae rising from their hydrorhizae to a separate genus *Calamphora*.

**Key words:** Leptothecata, *Calamphora*, stolonal hydroid colony, epizoic, pedicellate

### Introduction

Sertulariid hydroids of the genus *Sertularella* Gray, 1848 typically exhibit an erect colony form, but stolonal and pedicellate forms exist. Stolonal forms within Sertulariidae include *Calamphora parvula* Allman, 1888, *Sertularella solitaria* Nutting, 1904, *Sertularella campanulata* Warren, 1908, *Sertularella peculiaris* (Leloup, 1935), *Calamphora quadrispinosa* Watson, 2003, and *Sertularella fraseri* Galea, 2010. The stolonal forms carry terminal pedicellate hydrothecae with fully-developed hydranths on a creeping or loosely reticulated hydrorhiza. In both erect and stolonal forms, the hydrotheca possesses a pyramidal operculum composed of four triangular valves, and four marginal cusps. Sub-marginal, intrathecal projections may be present or absent. Bouillon *et al.* (2006) and Millard (1975), however, regard colony form to be of generic value, and assign stolonal forms to a separate genus, *Calamphora* Allman, 1888, based primarily on the presence of a pedicel. Vervoort (1968) considered such a separation to be unnecessary, as Alder (1856) had noted the occurrence of single, stolonal hydrothecae rising from their hydrorhiza amongst the otherwise commonly erect colonies of *Sertularella tenella*. Additionally, the colony structure of epizoic hydroids can be varied and flexible enough to significantly alter the morphology of some species (Orlov, 1997).

A recent examination of hydroids from the Pacific Coast of Canada, originally in collections of the Pacific Biological Station, Nanaimo, British Columbia, Canada, revealed stolonal colonies of a leptothecate hydroid referable to the genus *Sertularella* in several samples. Presently, this hydroid is known only from the localities described in this paper. Colony form and hydrothecal attributes, along with distinctive annulated gonothecae, indicate that this hydroid represents a new species. *Sertularella maureenae*, n. sp., presents both pedicellate and semi-erect hydrothecae on the same stolonal system. Since the former was the predominant form in our samples, we consider *S. maureenae* to be a *preferentially stolonal pedicellate* form. An account of this hitherto undescribed species is given here. We discuss its systematic position in relation to other similarly pedicellate species.