

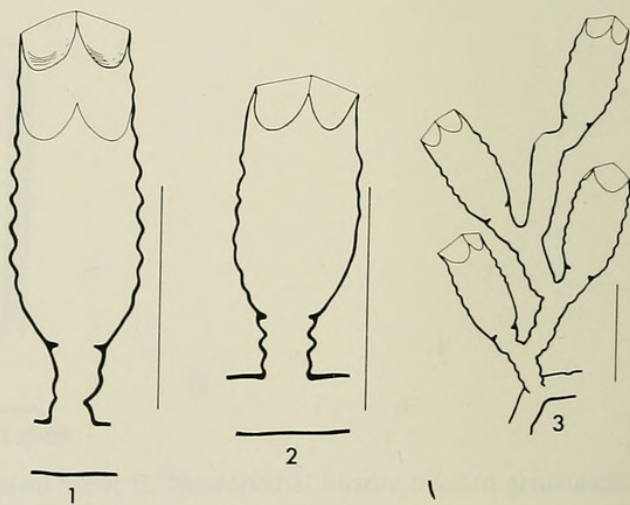
SYMMETROSCYPHUS, A NEW GENUS OF THECATE HYDROID (FAMILY THYROSCYPHIDAE) FROM BERMUDA

Dale R. Calder

Abstract.—A new genus, *Symmetroscyphus*, is proposed for the single species *Thyrosocyphus intermedius* Congdon, 1907, a shallow water hydroid of the family Thyrosocyphidae Stechow, 1920, from Bermuda. Unlike the closely allied genus *Thyrosocyphus* Allman, 1877, with its erect hydroid colonies and bilaterally symmetrical hydrothecae, *Symmetroscyphus* typically has stolonial colonies and radially symmetrical hydrothecae. *Symmetroscyphus intermedius* is superficially similar to but morphologically distinct from *Calamphora parvula* Allman, 1888, *Sertularella solitaria* Nutting, 1904, and *Sertularella campanulata* Warren, 1908.

Thyrosocyphus intermedius Congdon, 1907, is a small thecate hydroid presently known only from Bermuda, where it is common to abundant in shallow water on turtle grass (*Thalassia*). Colonies are brownish in color when alive due to the presence of algal symbionts in the coenosarc. Hydroids of this species superficially resemble those of *Calamphora parvula* Allman, 1888, *Sertularella solitaria* Nutting, 1904, and *Sertularella campanulata* Warren, 1908, in their colony form, which is typically stolonial, and in having hydrothecae with annulated walls and four marginal teeth. Because of the similarity of these species, *T. intermedius* has been included as a synonym of *C. parvula* (as *Sertularella parvula*) by Vervoort (1968) and as a questionable synonym of *S. campanulata* by Stechow (1919). Specimens of *T. intermedius* from Bermuda differ from type material of both *Calamphora parvula* and *Sertularella campanulata*, as well as *Sertularella solitaria*, in having radially rather than bilaterally symmetrical hydrothecae, a centrally located rather than an excentric hydropore, an annular fold about the hydranth base instead of an abcauline diverticulum, perisarc of uniform thickness around the perimeter of the hy-

drothecal wall instead of thicker perisarc on the side opposite the excentric hydropore, and clusters of large nematocysts in an intrathecal sheath of ectoderm. Unlike *C. parvula*, the hydrothecal orifice of *T. intermedius* is perpendicular to the axis of the hydrotheca, and intrathecal teeth are lacking. Based on such major differences, *T. intermedius* cannot be retained in the synonymy of either *C. parvula* or *S.*



Figs. 1-3. *Symmetroscyphus intermedius*: 1, Hydrotheca with rennovated margin, ROMIZ B313; 2, Hydrotheca, ROMIZ B314; 3, Erect colony, ROMIZ B314. Scale bars equal 500 μ m.

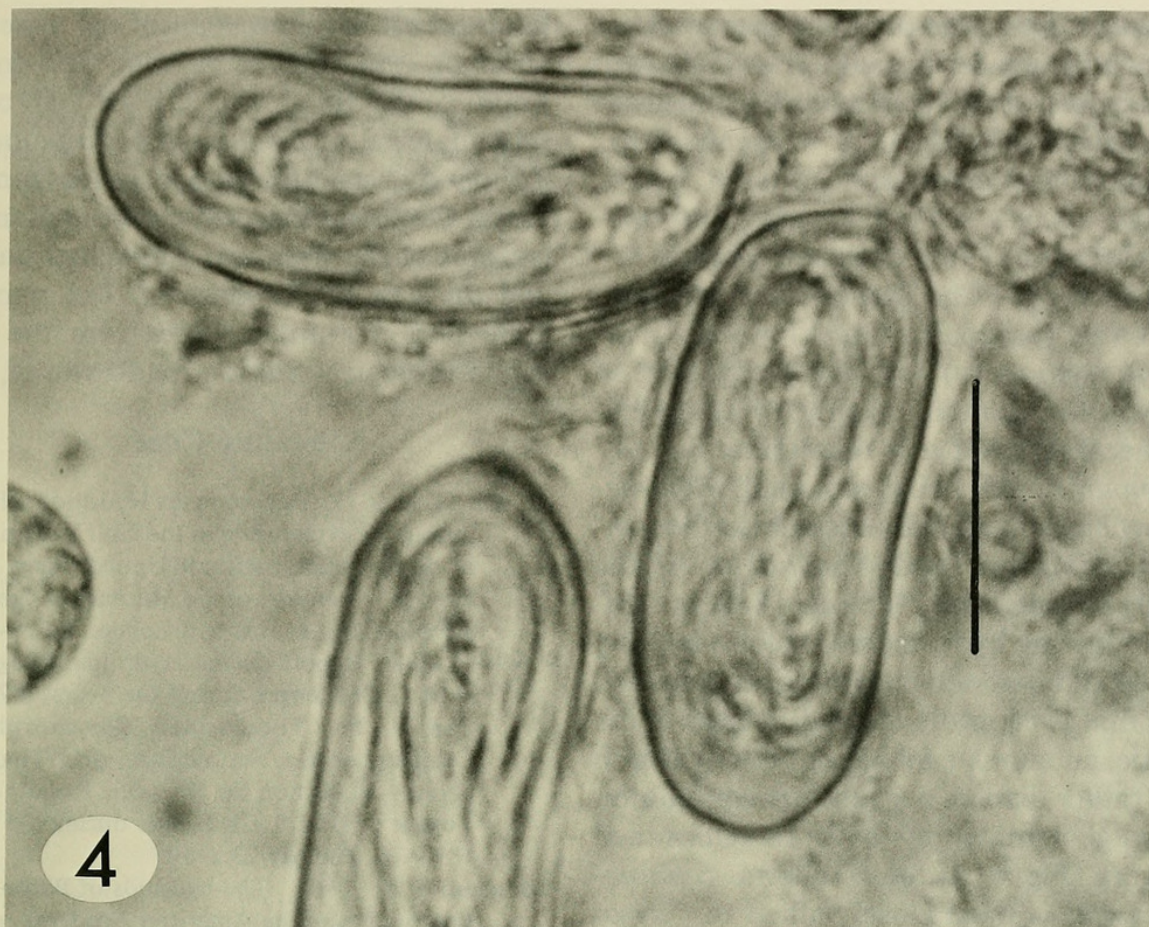


Fig. 4. Large nematocysts from ectodermal sheath lining hydrothecal cavity of *Symmetroscyphus intermedius*, ROMIZ B314. Scale bar equals 20 μ m.

campanulata, nor can it be assigned to *Calamphora* Allman, 1888, *Sertularella* Gray, 1848, *Thyroscyphus* Allman, 1877, or any other described genus. A new genus, *Symmetroscyphus*, is established for the species in this report.

Institutional abbreviations used in this paper are: BMNH—British Museum (Natural History); NM—Natal Museum; ROMIZ—Royal Ontario Museum, Department of Invertebrate Zoology.

Materials and Methods

Type materials of *Calamphora parvula* (BMNH 1888.11.13.65A) from Bass Strait, Australia, and *Sertularella campanulata* (NM 751) from Natal, were obtained on loan and compared with specimens of *Thyroscyphus intermedius* (ROMIZ B186, ROMIZ B205, ROMIZ B313, ROMIZ

B314) from Bermuda. Nematocysts of formalin-preserved materials of *T. intermedius* (ROMIZ B314) were examined in unstained tissue squashed under a coverslip. All observations were made using bright-field microscopy.

Symmetroscyphus, new genus Figs. 1–4

Diagnosis.—Hydroid colonies occasionally with erect hydrocauli, but typically stolonial. Hydrothecae pedicellate in both stolonial and erect colonies, radially symmetrical, barrel-shaped, margin with 4 teeth, submarginal teeth absent. Operculum pyramid-shaped, composed of 4 triangular valves. Diaphragm present, with centrally located hydropore. Hydranth with annular fold basally, abcauline diverticulum absent, with large nematocysts in body wall. Inner

surface of hydrothecal wall lined to some extent with ectoderm, ectodermal layer with aggregation of large nematocysts beneath each marginal tooth.

Gonophores unknown.

Type species.—*Thyroscyphus intermedius* Congdon, 1907, designated herein.

Etymology.—The name is derived from the Latin (originally Greek) words *symmetria* (symmetry) and *scyphus* (goblet) in allusion to the radial symmetry of the hydrotheca; the gender is masculine.

Remarks.—In being stolonial, *Symmetrosyphus* superficially resembles the genera *Calamphora* and *Sertularella* of the family Sertulariidae Fleming, 1828, but differs in having hydrothecae that are radially instead of bilaterally symmetrical, a hydro-pore that is centrally located instead of ex-centric, an annular fold about the hydranth base rather than an abcauline diverticulum, and large nematocysts of an undetermined category (Fig. 4) in the ectoderm. *Symmetrosyphus* is most closely allied to *Thyroscyphus* Allman, 1877, of the family Thyroscyphidae Stechow, 1920, from which it differs in having a stolonial instead of an erect colony form, and in having symmetrical hydrothecal walls instead of a more protuberant adcauline than abcauline wall.

The gonophores of *Symmetrosyphus* are unknown. Gonothecae were present in hydroids identified by Leloup (1935) as *Thyroscyphus intermedius* forme *peculiaris*. However, Leloup's specimens are regarded here as belonging to a species other than *S. intermedius*, and in fact correspond with diagnoses of the genus *Sertularella* rather than *Symmetrosyphus*.

Symmetrosyphus is a monotypic genus, referable to the family Thyroscyphidae. The only species assigned here to the genus is its type species, *Thyroscyphus intermedius*.

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Department of Invertebrate Zoology,
Royal Ontario Museum, 100 Queen's Park,
Toronto, Ontario M5S 2C6, Canada, and
Department of Zoology, University of Toronto,
Toronto, Ontario M5S 1A1, Canada.



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