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Zyzyzus rubusidaeus (Cnidaria, Hydrozoa, Tubulariidae), a new species of anthoathecate hydroid from the coast of British Columbia, Canada

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Abstract

Zyzyzus rubusidaeus, **sp. nov.**, is described from inshore waters near the northern tip of Vancouver Island, British Columbia, Canada. Specimens were collected on rocky bottoms amongst barnacles, sponges, and compound ascidians at a depth of 18 m in Weynton Passage, Broughton Strait, during March, July, and October 2012. Polyps tend to grow in dense aggregations, often covering several square centimetres. Hydroids of *Z. rubusidaeus* most closely resemble those of *Z. robustus* Petersen, 1990 from Greenland, but differ in having aboral tentacles that are scattered in a narrow band around the base of the hydranth rather than occurring in a single whorl, thin and transparent instead of thick and stiff perisarc around hydrocaulus and tubers, and gonophores that arise from simple pedicels instead of short, stout branches. Possible embryos were present in female gonophores, although structures recognizable as actinula larvae have not been observed. The cnidome comprises small and large stenoteles, desmonemes, microbasic euryteles, basitrichs, and isorhizas. Polyps are a raspberry colour in life, a hue that has faded but little in our formalin-preserved material. Discovery of this hydroid brings the number of species currently recognized in genus *Zyzyzus* Stechow, 1921 to seven.

Key words: Anthoathecata, Capitata, Hydroidolina, invertebrates, marine biology, natural history, taxonomy, zoology

Introduction

Zyzyzus Stechow, 1921 is a relatively obscure genus of hydrozoans, currently referred to family Tubulariidae Fleming, 1828. Within that group it is closely related to *Ralpharia* Watson, 1980 (Nawrocki & Cartwright, 2012), another little-known hydroid genus. Its type species, by monotypy, is *Tubularia solitaria* Warren, 1906 (not *Tubularia solitaria* Rapp, 1829, now known to be an anthozoan; the permanently invalid junior primary homonym *T. solitaria* Warren, 1906 has been replaced by the name *Zyzyzus warreni* Calder, 1988). Species assigned thus far to the genus are strictly polypoid, with an actinula stage instead of a medusa in the life cycle. Although infrequently reported, hydroids included in *Zyzyzus* have now been discovered in all oceans.

Previously known species of *Zyzyzus* are said to be solitary, as with certain other representatives of the clade Aplanulata Collins, Winkelmann, Hadrys & Schierwater, 2005, although they may occur in aggregates and appear colonial. Sponges are their most frequently reported substrate (Petersen 1990; Puce *et al.* 2005; Campos *et al.* 2007, 2012) but they have been reported on others as well (e.g. Calder 1988; Petersen 1990). Polyps of the genus are distinguished by a combination of characters: hydrocauli are stout and parenchymatous, with peripheral longitudinal canals in the endoderm; hydrorhizae are in the form of rootlets and tubers; hydranths are radially symmetrical, with oral and aboral whorls of tentacles; actinula-forming gonophores occur on blastostyles arising just distal to the aboral tentacles.

In a revision of the genus *Zyzyzus*, Campos *et al.* (2007) recognized four species as valid: *Z. warreni*, with a widespread distribution in warm waters of the Atlantic, Pacific, and Indian oceans, *Z. spongicolus* (von Lendenfeld, 1885) from Australia, *Z. floridanus* Petersen, 1990 from Florida, and *Z. robustus* Petersen, 1990 from Greenland. Campos *et al.* referred *Z. calderi* Petersen, 1990 from Bermuda to the synonymy of *Z. warreni*. Hirohito (1988) suggested that *Corymorpha iyoensis* Yamada, 1958 from Japan should be assigned to the genus. The generic