

Appendix. Material examined of the species studied.

Family Bougainvilliidae Lütken, 1850

***Rhizorhagium antarcticum* (Hickson and Gravely, 1907)**

Material examined. **E189**, several polyps, on *Oswaldella terranova* and *Schizotricha nana* (NIWA 128460); **TAN0102/K0803**, several polyps on alga, *Antarctoscyphus spiralis*, *Lafoea dumosa*, *O. terranova* and *Symplectoscyphus glacialis* (NIWA 144399).

Family Eudendriidae L. Agassiz, 1862

***Eudendrium megalarmatus* sp. nov.**

Material examined. **TAN 0402/89**, one stem 130 mm high (NIWA 144360).

Family Corymorphidae Allman, 1872

***Corymorpha microrhiza* (Hickson and Gravely, 1907)**

Material examined. **TRIP 3923/93**, three polyps, with gonophores (NIWA 88762).

Family Tubulariidae Goldfuss, 1818

***Tubularia* sp.1**

Material examined. **TAN 1502/60**, one stem 7 mm high, on *Symplectoscyphus frondosus* (NIWA 104602).

***Tubularia* sp.2**

Material examined. **E 189**, one stem 8 mm high, on *S. nana*.

Family Lafoeidae Hincks, 1868

***Filellum antarcticum* (Hartlaub, 1904)**

Material examined. **TAN 0102/K0803**, several hydrothecae, on *Campanularia hicksoni*, *L. dumosa* and *S. nana* (NIWA 144399).

***Lafoea dumosa* (Fleming, 1820)**

Material examined. **E189**, a few stems up to 50 mm high, on *O. terranova* (NIWA 128460); **TAN0102/K0803**, one fragment 10 mm long (NIWA 144259) and several stems up to 30 mm high, on *O. terranova* and bryozoan, basibiont for *Campanularia* sp. and *F. antarcticum* (NIWA 144399).

Family Campanulariidae Johnston, 1836

***Campanularia hicksoni* Totton, 1930**

Material examined. **TAN 0102/K0803**, a few hydrothecae, on *O. terranova* and *S. nana*, basibiont of *F. antarcticum* (NIWA 144399).

***Campanularia* sp.**

Material examined. **TAN 0102/K0803**, one hydrotheca on *L. dumosa* and a few hydrothecae in poor condition on bryozoan (NIWA 144259), and a few hydrothecae, on *L. dumosa*, *Antarctoscyphus elongatus*, *O. terranova*, *Symplectoscyphus naumovi* and bryozoans (NIWA 144399).

Family Campanulinidae Hincks, 1868

***Lafoeina longithecata* Jäderholm, 1904**

Material examined. **E189**, at least two hydrothecae and one nematotheca, on stolon of *R. antarcticum*, and two hydrothecae on *S. nana*.

***Stegella lobata* (Vanhöffen, 1910)**

Material examined. **E179**, a few stem fragments up to 35 mm long, with two gonothecae (NIWA 128459).

Family Tiarannidae Russell, 1940

***Stegopoma plicatile* (Sars, 1863)**

Material examined. **TAN 1502/61**, one stem 11 mm high, on axis of gorgonian (NIWA 104542).

Leptothecata incertae sedis

***Billardia subrufa* (Jäderholm, 1904)**

Material examined. **TAN 0102/K0801**, a stem fragment 20 mm long, with one gonotheca (NIWA 144260); **TAN 0402/104**, a fragment 20 mm long (NIWA 103284); **TAN 1901/106**, one stem fragment 60 mm long, with one gonotheca (NIWA 140090); **TAN 1901/114**, two stem fragments 50 and 30 mm long in very poor condition (NIWA 140103).

Family Staurothecidae Maronna, Miranda, Peña Cantero, Barbeitos and Marques, 2016

***Staurotheca compressa* Briggs, 1938**

Material examined. **E179**, a mass of stems 30 mm in diameter, with female gonothecae, and a few fragments up to 15 mm long, with male gonothecae (NIWA 128459).

***Staurotheca densa* Peña Cantero and Vervoort, 2003**

Material examined. **TAN0102/K0801**, a mass of stems 30 mm in diameter, in poor condition (NIWA 144260).

***Staurotheca nonscripta* Peña Cantero, Svoboda and Vervoort, 1997**

Material examined. **E179**, a mass of stems 50 mm in diameter (NIWA 128454); **TAN 0102/K0801**, a mass of stems 50 mm in diameter (NIWA 144260); **TAN 0402/58**, a fragment 12 mm long (NIWA 103285).

***Staurotheca pachyclada* (Jäderholm, 1904)**

Material examined. **TRIP 2529/71**, one basally broken stem 130 mm high, with female gonothecae (NIWA 105631).

Family Symplectoscyphidae Maronna, Miranda, Peña Cantero, Barbeitos and Marques, 2016

***Antarctoscyphus elongatus* (Jäderholm, 1904)**

Material examined. **E179**, one stem 60 mm high (NIWA 128459); **TAN 0102/K0803**, one stem 80 mm long, basibiont of *Campanularia* sp. (NIWA 144399), and a stem fragment 45 mm long (NIWA 144259).

***Antarctoscyphus grandis* (Blanco, 1977)**

Material examined. **E189**, three stems 190, 190 and 175 mm high, with immature gonothecae (NIWA 128460); **TAN 0102/K0803**, a distal stem fragment 40 mm long (NIWA 144399).

***Antarctoscyphus spiralis* (Hickson and Gravelly, 1907)**

Material examined. **TAN 0102/K0803**, several colony fragments up to 105 mm long, with gonothecae, and incipient stems up to 20 mm high, on *O. terranova* and *S. nana*, basibiont of *R. antarcticum* (NIWA 144399).

***Symplectoscyphus anae* Peña Cantero, Svoboda and Vervoort, 2002**

Material examined. **E189**, a few stems up to 5 mm high, on *S. nana* and *O. terranova* (NIWA 128460); **TAN 0102/K0803**, one fragment 5 mm long, with one gonotheca (NIWA 144259).

***Symplectoscyphus curvatus* (Jäderholm, 1917)**

Material examined. **TAN 1502/61**, four stems up to 27 mm high, with two gonothecae, on gorgonian (NIWA 104542).

***Symplectoscyphus exochus* Blanco, 1982**

Material examined. **E189**, a colony fragment 15 mm long, with immature gonothecae (NIWA 128460); **TAN 0102/K0803**, two fragments 9 and 10 mm long (NIWA 144259); **TAN 0402/89**, a colony fragment 15 mm long (NIWA 144360); **TAN 1901/106**, a mass of stems 15 mm in diameter, some stems attached to tube of benthic organism (NIWA 140087).

***Symplectoscyphus frondosus* Peña Cantero, 2010**

Material examined. **TAN 1502/60**, numerous stems up to 215 mm high, basibiont of *Tubularia* sp.1 (NIWA 104602); **TAN 1901/106**, two stems 130 and 90 mm high (NIWA 140090); **TAN 1901/111**, two stems 75 and 120 mm high (the latter with immature gonothecae) (NIWA 140100); **TAN 1901/156**, one stem 170 mm high (NIWA 140173); **TRIP 2732/54**, one stem 125 mm high, on coral (NIWA 125109).

***Symplectoscyphus glacialis* (Jäderholm, 1904)**

Material examined. **E179**, three fragments up to 20 mm long (NIWA 128454); **E189**, a mass of stems 25 mm in diameter, with remnants of two gonothecae, and a few incipient stems on *S. nana* (NIWA 128460); **TAN 0102/K0803**, a few stems up to 20 mm high, on *O. terranova* and bryozoans, and a few colony fragments up to 20 mm long, basibiont of *F. antarcticum* and *R. antarcticum* (NIWA 144399).

***Symplectoscyphus liouvillei* (Billard, 1914)**

Material examined. **E189**, one stem at least 100 mm high (NIWA 128460); **TAN 1901/106**, one stem 170 mm high (NIWA 140091); **TAN 1901/122**, one stem 200 mm high (NIWA 140117).

***Symplectoscyphus naumovi* Blanco, 1969**

Material examined. **TAN 0102/K0803**, one stem 5 mm high, on *S. nana*, basibiont for *Campanularia* sp. (NIWA 144399).

***Symplectoscyphus pseudofrondosus* sp. nov.**

Material examined. **TAN 1502/52**, one stem 95 mm high (NIWA 104505).

***Symplectoscyphus tortuosus* sp. nov.**

Material examined. **TAN 1502/55**, one stem 90 mm high (NIWA 104504).

Family Haleciidae Hincks, 1868

***Halecium exaggeratum* Peña Cantero, Boero and Piraino, 2013**

Material examined. **TAN 0602/70**, two stems 30 and 26 mm high, on coral (NIWA 144245).

***Halecium incertus* Naumov and Stepanjants, 1962**

Material examined. **TAN 0102/K0801**, two strongly polysiphonic colonies up to 150 mm high, with female gonothecae (NIWA 144260); **TRIP 2993/119**, two stems 130 and 160 mm high (NIWA 131354); **TRIP 2996/80**, at least three fragmented colonies (longest fragment 200 mm long), with gonothecae (NIWA 131359).

***Halecium interpolatum* Ritchie, 1907**

Material examined. **E 189**, a few stems up to 9 mm high, on *S. nana*.

***Halecium pseudoincertus* Peña Cantero, 2014**

Material examined. **TAN 1901/106**, one stem 140 mm high (NIWA 140088).

Family Zygothylacidae Quelch, 1885

***Abietinella operculata* (Jäderholm, 1903)**

Material examined. **TAN 0102/K0803**, one stem 60 mm high (NIWA 144399); **TAN 0402/89**, one stem 25 mm high, on bryozoan (NIWA 144360); **TAN 0402/184**, stem fragment 60 mm long (NIWA 105602).

Family Schizotrichidae Peña Cantero, Sentandreu and Latorre, 2010

***Schizotricha frigida* sp. nov.**

Material examined. **TAN 0102/K0803**, several stem fragments up to 160 mm long, with male gonothecae (NIWA 144399), but two of them, 72 and 90 mm long, with female gonothecae.

***Schizotricha nana* Peña Cantero, Svoboda and Vervoort, 1996**

Material examined. **E189**, one colony at least 220 mm high, basibiont of *L. longithecata*, *H. interpolatum*, *R. antarcticum*, *S. anae* and *S. glacialis* (NIWA 128460); **TAN 0102/K0801**, a fragmented colony (longest fragment 70 mm long), with gonothecae, on stone (NIWA 144260); **TAN 0102/K0803**, one broken colony (longest fragment 100 mm long), basibiont of *A. spiralis*, *F. antarcticum* and *S. naumovi* (NIWA 144399); **TAN 0402/58**, a fragment 15 mm long (NIWA 103285); **TRIP 2529/71**, one stem 200 mm high, on stone (NIWA 50615).

***Schizotricha turqueti* Billard, 1906**

Material examined. **E189**, three stem fragments up to 50 mm long, probably belonging to the same stem, with male gonothecae (NIWA 128460).

Family Kirchenpaueriidae Stechow, 1921

***Oswaldella bifurca* (Hartlaub, 1904)**

Material examined. **TRIP 2995/45**, several stems up to 45 mm high, with gonothecae (NIWA 131360).

***Oswaldella terranova* Peña Cantero and Vervoort, 1996**

Material examined. **E189**, a tuft of stems up to 270 mm high, almost without hydrocladia (NIWA 128460); **TAN 0102/K0803**, three distal stem fragments up to 60 mm long (NIWA 144259) and several stem fragments up to 200 mm long, basibiont of *A. spiralis*, *C. hicksoni* *Campanularia* sp., *L. dumosa* and *R. antarcticum* (NIWA 144399); **TAN 1901/106**, one stem 113 mm high (NIWA 140089).

Family Plumulariidae McCrady, 1859

***Nemertesia gelida* sp. nov.**

Material examined. **TRIP 2529/71**, one stem fragment 35 mm long (NIWA 50615).