

Eggs are extruded singly from the ripe proglottids in sea water and are surrounded by a spherical hyalin envelope approximately 0.080mm in diameter. The egg possesses an outer capsule 0.039mm in diameter, and an inner one 0.025mm in diameter. When first released the eggs are unembryonated, but on standing overnight in sea water, develop into typical hexacanth larvae.

CALLIOBOTHRIUM van Beneden, 1850

*Calliobothrium verticellatum* van Beneden, 1850.

HOST: *Mustelus lenticulatus* Phillips.

LOCALITY: Cook Strait; Oamaru Harbour.

HABITAT: Spiral valve.

This species is widespread, and occurred in six of the seven hosts examined.

Euzet (1954) described and compared the species of *Calliobothrium* known from the Mediterranean and added a new species, *C. lintoni*. The species of this genus obtained in the present study were compared with his descriptions, with that of Yoshida's (1917) *C. nodosum*, which was not included in Euzet's paper, and with *C. pellucidum* Riser, 1955.

*Calliobothrium eschrichtii* van Beneden, 1850.

HOST: *Mustelus lenticulatus* Phillips.

LOCALITY: Cook Strait; Oamaru Harbour.

HABITAT: Spiral valve.

This species occurred in two *Mustelus lenticulatus* trawled from each locality. In hook size and shape and in most details of proglottidal anatomy it corresponds closely with the description given by Euzet for this species. The only notable difference was in the number of testes (12–15 for Euzet's specimens vs 18–20).

*Calliobothrium tylocephalum* n. sp. (Figs. 12, 13, 14, 15, 16, 17)

HOST: *Mustelus lenticulatus* Phillips.

LOCALITY: Cook Strait; Oamaru Harbour.

HABITAT: Spiral valve.

DIAGNOSIS. Large, robust, apolytic worms up to 286mm in length with up to 293 proglottids. Mature and gravid proglottids broader than long, the latter 1.254–1.881mm long by 2.310–3.120mm wide. Posterior end of each proglottid with large, paired, dorsal and ventral lacinae meeting in midline. Scolex 1.040–1.617mm wide, with apical, muscular, protrusible organ 0.075–0.123mm in diameter. Bothridia deep, muscular, 0.988–1.383mm long by 0.481–0.825mm wide; middle loculus 0.247–0.351mm long, terminal loculus 0.195–0.260mm long; single accessory sucker 0.144–0.195mm in diameter; living bothridia with numerous minute, bright orange globules under cuticle of bothridial faces. Hooks heavy, subequal, strongly curved; outer hook 0.210–0.270mm in greatest breadth; inner hook 0.240–0.270mm long. Scolex and bothridia covered with minute, stout, dense spines. Neck short, up to 1.749mm in length. Testes small, 0.066–0.087mm in maximum diameter, irregular in shape, approximately 240 in number, crowded two to three deep in two broad, lateral fields between excretory canals, extending posteriorly ventral to ovary. Vas deferens a few narrow coils extending from cirrus pouch to midline of proglottid. Cirrus pouch ovoid, 0.164–0.264mm long by 0.115–0.165mm wide, extending inward as far as excretory canals. Gonopore in anterior fourth of proglottid margin. Vagina narrow, with thick, cuticular lining, opening in genital atrium ventral to cirrus. Ovary consisting of dense follicles, in two undivided lobes in dorsal medullary region, connected near their mid-region by narrow isthmus. Uterus consisting of median tube with 4–5 thin, irregular, lateral branches on each side, filling ripe proglottid. Eggs extruded in groups of 2–8 in common, ovoid envelope; each egg subspherical, with outer capsule 0.032–0.034mm in diameter, inner mass 0.022–0.026mm in diameter. Vitellaria of small, dense follicles, in lateral bands "C" shaped in cross section, extending from level of midpoint of ovary to anterior end of proglottid.