

*DESCRIPTION OF Salmacina chilensis n. sp. (Polychaeta,
Serpulidae) FROM NORTHERN CHILE.*

by V. A. Gallardo

During the benthic survey of the Mar Chile II Expedition (Rojas 1962, Robles 1966), 120 specimens of an Oxyrhynchous crab were collected in one triangular dredge haul (Gallardo 1963). Specimens of the crab were sent to Dr. J. S. Garth (Allan Hancock Foundation, University of Southern California) and are described as a new genus and species on pages 5-7 of this volume. On examination it was seen that most of the specimens of this new form were infested by a serpulid worm, which turned out to be also a new species. Its description follows.

Salmacina chilensis n. sp.

(Plate I, Plate II, figs. 1-6)

Collection: The specimens were found on the exoskeleton of *Lophorochinia parabranchia* Garth, 1969 mainly on the dorsal region of the cephalothorax (Plate I). Less frequently, specimens were found on the pleural and ventral regions, and legs.

The hosts were collected from 282 m depth on a compact clay bottom at 20°48'S Lat. and 70°21'W Long on July 27, 1962 (Sta. 45). Temperature, salinity and oxygen content at 250 m depth in the same locality were, 11.28°C, 34.63‰, and 0.11 ml. O₂/l. respectively (Anónimo 1965). The holotype and paratypes are deposited in the Museum of the Departamento de Zoología, Instituto Central de Biología, Universidad de Concepción, Concepción, Chile. Measurements of the holotype are as follow: length 9,6 mm and width: 0,4 mm.

Description: Specimen measurements are 9 mm long, and 0.5 mm wide. Branchiae alone are ca. 3 mm long. Body clear brown, and branchiae white in preservation. Seven thoracic setigers; the first

one with only notopodial setae (collar setae). All other setigers with simple notopodial setae and ventral uncini. Abdomen consisting of about 36 setigers and ending in two small rounded papillae. Nine or ten pairs of simple branchiae are present with pinnae arranged in double series, without stylodes. Eye spots absent. Branchial filament tips not enlarged. The collar is tall with a dorsal and lateral notches, and ventral fold. Collar setae of two kinds: a) a few simple, slender, slightly curved setae with a finely dentate edge; and b) with a distal, dentate straight tip separated from a proximal toothed spur by a straight, shallow and smooth notch (Plate II, fig. 1). Teeth of toothed spur numerous and stout, middle ones larger than lateral ones, and distributed all over the surface of this enlarged portion (Plate II, figs. 2 and 3). Notoetae of following thoracic setigers are of three kinds: a) simple, slender, finely serrated, slightly curved setae; b) winged, dentate setae (Plate II, fig. 4); and c) setae of the so-called *Salmacina* type, with blunt teeth along the cutting edge (Plate II, fig. 5). Thoracic uncini about 88 in a row, each provided with a double row of denticules and a large basal tooth, all of which in lateral view, appear as 8 "teeth" (Plate II, fig. 6). Abdominal neuropodial setae inconspicuous or absent in middle setigers but becoming greatly developed in the last 10 or 12 setigers. Setae of this region with long shafts and terminally winged, numbering one or two per parapodium. Abdominal uncini less numerous in the middle parapodia (ca. 9), increasing in number posteriorly (ca. 21), but again diminishing terminally (ca. 13). Uncini provided with many small teeth arranged in four to five rows, and appearing in lateral view as seven to eight "teeth". Tubes calcareous, white.

Affinities: *Salmacina chilensis* n. sp. is related to *S. amphidentata* Jones, 1962. It differs from the latter in having 18 to 20 branchiae lacking inflated tips, instead of eight branchiae with slightly inflated tips as in *S. amphidentata*. The Chilean form is larger and comprises a greater number of abdominal setigers (36 instead of 16 or 17). Other minor differences concern the setae and the number and arrangement of uncinial teeth. In *Salmacina chilensis* only two kinds of collar setae are present instead of three as in *S. amphidentata*.

Distribution: Northern Chile, off Punta Patache.

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Resumen

Durante la investigación bentónica de la Expedición Mar Chile II se colectaron 120 especímenes de una pancora Oxyrhynga (*Lophorochinia parabranchia* Garth, 1969) mediante una rastra triangular a una profundidad de 282 m, en fondo de arcilla compacta. Algunos especímenes de la pancora fueron enviados al Dr. J. S. Garth de la Allan Hancock Foundation, University of Southern California, para su estudio (vea págs. 5-7 de este volumen). Se observó que mu-

chos de los especímenes de *L. parabranchia* poseían poliquetos serpulidos como epibiontes, los que al ser estudiados resultaron ser una nueva especie, la que aquí se describe como *Salmacina chilensis* n. sp.

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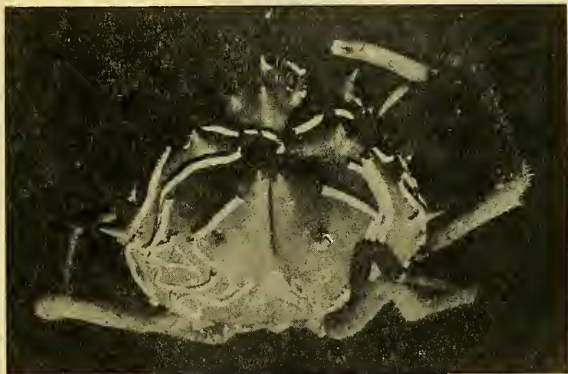


PLATE I

Female specimen of *Lophorochinia parabranchia* Garth, 1959, showing tubes of *Salmacina chilensis* n. sp.



PLATE 11

- Figure 1: Collar seta, x 750.
 2: Collar seta, detail of toothed spur, front view, x 1100.
 3: Same as above, lateral view, x 1100.
 4: Thoracic winged notoseta, x 750.
 5: Thoracic notoseta of the "*Salmacina* type", x 750.
 6: Abdominal uncinus, x 1100.