

## **A new species of *Trichopagurus* de Saint Laurent (Crustacea: Decapoda: Anomura: Paguridae) from the Ryukyu and Yap Islands, and redescription of *T. trichophthalmus* (Forest)**

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### **Abstract**

Discovery of a new hermit crab species from the Ryukyu Islands, Japan, led us to reexamine the holotype and supplemental specimens of *Trichopagurus trichophthalmus* (Forest), the type species of the heretofore monotypic *Trichopagurus* de Saint Laurent. Our examination has revealed that the gill lamellae of *T. trichophthalmus* are actually entire (= biserial), rather than shallowly divided distally (= quadriserial) as reported by de Saint Laurent (1970). The new species is assigned to *Trichopagurus* because of the 11 pairs of biserial gills, well-developed rostrum, moderately long male right sexual tube directed toward exterior, and the possession of a single left gonopore in female. The new species, *T. macrochela* n. sp., is distinguished from *T. trichophthalmus* primarily by the dorsoventrally flattened carpus with a distinctly delimited dorsomesial margin, less setose ambulatory legs, and markedly asymmetrical coxae of the female fifth pereopods, of which the left bears numerous setae on the ventral surface. It has been also shown that previous records of *T. trichophthalmus* from the Palau and Yap Islands are based on both true *T. trichophthalmus* and *T. macrochela*. A comparative, updated redescription of *T. trichophthalmus* is also provided.

**Key words:** Crustacea, Decapoda, Anomura, Paguridae, *Trichopagurus*, new species, taxonomy, Indo-West Pacific

### **Introduction**

During a survey by the authors at Kume-jima Island, Ryukyu Islands, four specimens of an undescribed species of pagurid hermit crab were collected from coral reefs at intertidal to subtidal depths. A second lot, including two specimens, was collected subsequently in shallow water from a coral reef area of Kuroshima Island, Yaeyama Islands, southern Ryukyus, by the first author. This species resembled *Trichopagurus trichophthalmus* (For-