**ABSTRACT**

A new porcellanid crab, *Petrolisthes polychaetus* n. sp., is described based on material collected from Hainan Island, China. The new species appears closest to *P. miyakei* Kropp, 1984 and *P. trilobatus* Osawa, 1996, but is distinguishable by the presence of numerous simple setae, scattered on the dorsal surface of the carapace.

**RÉSUMÉ**

Un nouveau crabe porcellanidé *Petrolisthes polychaetus* n. sp. est décrit à partir de matériel collecté à l’île de Hainan, Chine. La nouvelle espèce apparaît la plus proche de *P. miyakei* Kropp, 1984 et *P. trilobatus* Osawa, 1996, mais elle s’en distingue par la présence de nombreuses soies simples, dispersées sur la surface dorsale de la carapace.

**INTRODUCTION**

*Petrolisthes* Stimpson, 1858 is the most species-rich genus in the anomuran family Porcellanidae. It includes about 100 species worldwide, of which more than 40 species are known from the Indo-West Pacific. Most of the species are recorded from shallow rocky or coral reefs in the tropical and subtropical regions.

In November 2009, an extensive marine biological research was made at Hainan Island, northern South China Sea. The material collected included hundreds of porcellanid crabs, among which seven specimens of the genus *Petrolisthes*...
appeared to belong to an as yet undescribed species. This species is herein described as new to science. The type specimens are deposited in the Marine Biological Museum (MBM), Chinese Academy of Sciences, located in the Institute of Oceanology, Chinese Academy of Sciences, Qingdao.

The carapace length (CL) was measured from the apex of the rostrum to the median posterior margin of the carapace. The width of the carpus of the cheliped was measured excluding teeth on the flexor margin. The size of a specimen is given in the text as length $\times$ width of the carapace.

**SYSTEMATICS**

**Family PORCELLANIDAE Haworth, 1825**

**Genus Petrolisthes Stimpson, 1858**

**Petrolisthes polychaetus** n. sp. (figs. 1-5)

Material examined. — Sanya, Hainan Island, China. Holotype: male (4.8 $\times$ 4.7 mm), MBM119728, Qingren Bay, 5-8 m depth, on coral branches, 25 November 2009, collected by Dong Dong and Qi Kou. Paratypes: 1 male (4.0 $\times$ 3.9 mm), MBM119726, Luhuitou subtidal zone, 1 m depth, hole in living coral reef, 23 November 2009, collected by Dong Dong; 1 male (4.0 $\times$ 3.7 mm), 4 females (4.1 $\times$ 4.0 mm, 3.0 $\times$ 3.0 mm, 2.5 $\times$ 2.3 mm, 3.7 $\times$ 3.4 mm), MBM119727, Qingren Bay, 5-8 m depth, coral branches, 25 November 2009, collected by Dong Dong and Qi Kou.

Diagnosis. — Carapace as long as or slightly longer than broad. Dorsal surface of carapace covered with numerous long, simple setae. Rostrum trilobate anteriorly, with median lobe bent ventrally. Gastric regions sometimes with faint, short striae bearing minute setae anteriorly. Carapace unarmed except for pair of epibranchial spines. Basal article of antennular peduncle with spine mesially on anterior surface; lateral corner projecting into obtuse lobe. Second article of antenna 1 peduncle with prominent lamellar lobe on anterior margin, bearing spine proximally. Chelipeds subequal; carpi each nearly twice as long as broad, dorsoflexor margin with three teeth, dorso-extensor margin rugose, with spines distally; chelae both swollen, with numerous short, tuberculate rugae on dorsal surface. Ambulatory meri each with spine on extensor margin, and bearing long, simple setae on lateral surface of third ambulatory leg; carpi of first ambulatory legs each armed with disto-extensor spine; dactyli each with three movable spinules on flexor margin.

Description. — Carapace (fig. 1A) generally ovate, as long as or slightly longer than broad; lateral margins convex, broadest at posterior branchial regions. Dorsal surface flattish, finely covered with numerous long, simple, transparent setae, with setae on frontal region shorter but thicker than those on other regions; cervical grooves distinct; posterior branchial regions transversely rugose in lateral parts; posterior margin of carapace nearly straight, or slightly concave. Rostrum broad,