

merus is produced into a rounded tooth; the carpus is about equal in length to the hand, and slightly more than half the length of the carapace, its anterior border bears a single lobe of small size (hence the specific name) near the proximal end, the posterior border is raised, and the surface immediately behind is marked by numerous slight vertical rugosities, a faint median elevation runs along the upper surface of the joint, and the border overhanging the insertion of the propodus bears four unequal teeth; the propodus is narrow proximally but dilates somewhat towards its distal end, the anterior margin is raised and has a double outline, while a median elevation runs along the upper surface, in some specimens there is a small rounded lobe on the under surface fitting into a depression at the end of the merus; the fingers are somewhat curved, with their apices subacute and bent, the tip of the dactylus being folded under that of the immobile finger. The ambulatory limbs are comparatively smooth, a few slight transverse lines being present on the meral joints, and the carpi have their upper surface faintly carinated; the dactyli are acute and curved, with a few horny spines on their posterior margin; a few hairs and minute horny spinules are also present on the posterior margin of the propodi.

The abdominal segments are smooth and polished externally.

Breadth of carapace of a male 6 mm., length of carapace 7 mm., of extended abdomen 5.5 mm., of chelipede 12 mm., of third ambulatory leg 8 mm. The female is apparently of much smaller size.

This species is allied to *Petrolisthes japonicus* (De Haan), and *Petrolisthes elongatus* (Milne-Edwards). In the former the chelipedes are longer, and the carpus is equal in length to the carapace, with one or two teeth on its inner border, and two on the outer border. In *Petrolisthes elongatus* the outer border of the carpus is armed with from two to three teeth.

*Habitat.*—Station 172, off Nukalofa, Tongatabu; depth, 18 fathoms; bottom, coral mud. Two males and two females, the latter with ova.

*Petrolisthes serratus*, n. sp. (Pl. XI. fig. 2).

*Characters.*—The carapace is ovate and smooth, with numerous short transverse lines most conspicuous on the branchial and gastric areas, a few slight granulations are also present on the mid-branchial and frontal regions. The front is broad and slightly depressed, with the margin faintly crenated, and the apex rounded; a small fissure is present opposite the anterior border of the eye-stalk, bounded posteriorly by a short acute tooth. A small slightly convex lobe is placed between the antero-lateral angle and the point where the cervical groove passes on to the carapace, immediately behind this the lateral border commences in an acute spinule, and a slight carina is continued backwards for some distance but loses itself opposite the mid-branchial area; the postero-lateral border is not sharply defined, being represented simply by a rounded surface. The posterior