spinose and pubescent. The merus is smooth and trigonal, two small spinules are present at the distal end of its superior margin, separated by a transverse groove, and a few minute tubercles are present on the lower and internal margin, in line with a series of short spinules on the corresponding part of the ischium; the carpus is less than half the length of the propodus and remarkably deficient below, so that the hand can be folded under the merus, its upper surface bears three conical spines on the inner margin, with others of smaller size situated externally to these; the propodus is rather more pubescent than the carpus, and bears five curved acute spines on its inner margin, the spines on the upper surface are of small size, and towards the outer rounded border become replaced by granules, the outer surface is smooth; the fingers are less than half the total length of the propodus, and each is provided with a black horny terminal plate; their external surfaces are tubercular and pubescent, and each is provided with from two to three ill-defined pearly teeth. The ambulatory limbs are of moderate length and slightly pubescent, the anterior border of the carpal and propodal joints bears a row of curved acute spines (nearly obsolete on the carpus of the second pair), the dactyli are almost straight, and more densely clothed with hairs than the preceding joints, each terminating in a curved brownish claw. The last two pairs of thoracic legs are smooth and subchelate ; in each case the propodus bears at its distal end the oval punctate area seen in this position in most Pagurids ; the dactylus of the last pair is of very small size.

The abdominal segments are all distinct, and their posterior margins are fringed with extremely short hairs. The sixth segment is more strongly calcified than the others, its length and breadth are subequal, and a deep fissure is present on each lateral margin, while a shallow median groove traverses its upper surface; the telson is oblong and its distal end is bilobed, with the margins fringed by long hairs, and a transverse line present near the apex, placed at right angles to an obscure median carina. The appendages of the sixth segment have a firmly calcified protopodite, the posterior margin of which bears a single spine. The ova are moderately large in size.

Length of the largest specimen (a female with ova) 26 mm ., of carapace 8 mm ., of chelipede 14 mm ., of third right leg 18 mm ., of ocular peduncle 4.5 mm . The largest male measures only 18.5 mm . in length.

This species is distinguished from Pylocheles agassizii, A. Milne-Edwards, by the spiny armature of its chelipedes and ambulatory limbs; in the latter species the chelæ are simply granulated, and the ambulatory limbs are smooth.

Habitat.-Station 163a, off Twofold Bay, Australia; depth, 150 fathoms; bottom, green mud. Several specimens of both sexes, including two females with ova.

