

Habitat.—Honolulu, reefs. One specimen; male.

Dana obtained his specimens from the Sandwich Islands, and also from the Fiji Group, and Heller records it from the Nicobar Islands, Sydney and Tahiti.

Observations.—This species is undoubtedly *Alpheus lævis*, Randall, as figured and described by Dana. In our specimen the left hand is broken off, but one found in the bottle agrees with the figure in Dana's plates, and if it belongs to our specimen the left hand is rather larger than the right, being 14 mm. long, while the right is 13 mm.; in width the right is 5 mm., and the left 7 mm. The detached limb, although it has the character of being from the left side, and corresponds with Dana's figure, may be that of a second specimen, but as there was no other in the bottle to which it could belong, I believe it to have dropped from this one, and so describe it, having, however, figured it detached (fig. 3*k*). Each of them has the upper surface covered with small spots, and a number of short hairs.

On the branchial region of the carapace, corresponding with the upper extremity of the branchial chamber, a series of capillary vessels are seen within a circular margin of transparent tissue (fig. 3*c*).

Alpheus prolificus, n. sp. (Pl. XCIX. fig. 4).

Carapace two-thirds of the length of the pleon. The rostrum narrow. The orbital lobes pointed, broad, and nearly equal in length to the rostrum.

First pair of antennæ having the second joint of the peduncle shorter than the first, the third subequal with the second. Stylocerite a little longer than the first joint, flagella subequal and about as long as the carapace.

Second pair of antennæ as long as the animal, peduncle longer than that of the first pair, basal tooth as long as the stylocerite and nearly half as long as the scaphocerite, which is subequal with the peduncle.

First pair of pereopoda lost. Second slender, having the carpos five-articulate, the first articulus being longer than the four following ones. Third and fourth pairs robust, meros broad, compressed, without distal tooth; carpos anteriorly produced on the upper distal margin; propodos curved, furnished with spines on the posterior margin; dactylos stout, bluntly pointed, with a small secondary unguis on the outer surface (fig. 4*m*).

The pleopoda are broad and foliaceous.

Telson broad, smooth, furnished with two spinules on the dorso-lateral surface, tapering and rounded at the extremity.

Length, entire,	20	mm. (0·8 in.).
„ of carapace,	8	„
Depth of carapace,	5·5	„
Length of pleon,	12	„