ATYA LANIPES HOLTHUIS, 1963, IN JAMAICA, INCLUDING
TAXONOMIC NOTES AND DESCRIPTION OF THE FIRST
LARVAL STAGE (DECAPODA, ATYIDAE)

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INTRODUCTION
Hart (1961) listed the species of freshwater shrimp to be found in Jamaica. He reported only two species of the atyid genus Atya, these being Atya occidentalis Newport, 1847 (synonymous with Atya innocous (Herbst, 1792) which is now the valid name (Holthuis, 1966)), and Atya scabra (Leach, 1815).

Holthuis (1963) described a new atyid shrimp, Atya lanipes Holthuis, the description being based on two specimens from St. Thomas, Virgin Islands, preserved in the Rijksmuseum van Natuurlijke Historie, Leiden, Holland. Chace & Hobbs (1969) reported the presence of A. lanipes in the national collections of Puerto Rico and stated that the Puerto Rican material 'agreed well' with the type description except for a variation in the amount of pubescence on the last three pereiopods. However, more recently, Chace (1972, pers. comm.) confirmed that some of the Puerto Rican specimens did indeed show quite strong differences from the type description.

Although Chace & Hobbs (1969) provided a whole diagram of a probable first larval stage of the atyi,d shrimp Micratya poeyi (Guerin-Meneville, 1855), and a diagram of the telson of the same, no detailed description has ever been made of larvae of any species of the shrimp family Atyidae found in the New World.

Four shrimps have been collected in Jamaican waters, which, on the basis of the key provided by Chace & Hobbs (1969), were identified as A. lanipes, but which show certain strong differences from the type description of that species.

The purpose of the present paper is (a) to record the presence of A. lanipes in Jamaica; (b) to provide the first colour description for the species; (c) to indicate the major ways in which the Jamaican specimens differ from the type description and from one another and (d) to give a detailed description of the first larval stage of A. lanipes.

ADULT JAMAICAN SPECIMENS OF ATYA LANIPES
1. Habitat. — All four specimens collected in Jamaica were females. The postorbital carapace lengths were 9.8 mm, 12.6 mm, 13.7 mm, and 14.0 mm. All
specimens were collected in the Cane River in the parish of St. Thomas, Jamaica. Cane River is a small river which loses its connection with the sea during the dry season. The specimens were collected in pure freshwater where the rate of water flow was high and bottom substrate stony. To date, no specimens have been collected in any other body of freshwater in Jamaica, but since collecting activities have been concentrated on the Cane River, it is, of course, likely that the species occurs elsewhere.

2. Colour in life. — The ground colour of the cephalothorax and abdomen is dark green, but the presence of scattered cream chromatophores laterally produces a mottled effect. The cream chromatophores tend to become white in a dorso-ventral direction on the lateral surfaces, and along the ventral margins of the pleura form a distinct white line. There is a mustard-coloured strip running centrally on the dorsal surface from the tip of the rostrum to the tip of the telson where it terminates in an orange-coloured chromatophore. The strip remains narrow for the length of the carapace, but then widens to form a series of triangles, one in each abdominal segment. In the first two segments the apex of the triangle is posteriorly directed, in the last three anteriorly directed. In the last two segments the strip covers the bulk of the dorsal surface. The remainder of the dorsal surface of the abdomen, i.e. the area on either side of the strip, is dark green; as is the posterior half of the dorsal part of the carapace. The anterior half of the dorsal surface of the carapace is tan-coloured on either side of the strip.

The antennular and antennal peduncles are mottled green; the flagella are tan. The antennal scales are faintly mottled green at the base, but this quickly grades into translucency. All five pairs of pereiopods are distinctly banded with alternating strips of white and olive green. The tufts of hair borne distally on pereiopods 1 and 2 are strikingly orange in colour. All pleopods are white at their base, quickly becoming translucent distally.

3. Peculiarities of, and variation within, Jamaican specimens. — The tip of the rostrum (fig. 1) reaches as far as one-third of the way or as little as one-quarter of the way along the second segment of the antennular peduncle. There are one or two teeth borne on the ventral surface.

The antennular peduncle (fig. 1) is of similar width to the antennal peduncle; its second segment being less than twice as long as it is wide.

The propodus of pereiopod 3 (fig. 2A) bears 3 or 4 moderately strong spines on the distal margin. The dorsal, ventral, external and internal surfaces all bear numerous small, pointed, curved spines. The spines on each surface are usually arranged roughly in a double row. The average size of these spines shows some slight variation in the different specimens. The carpus bears a strong spine distally on the ventro-external margin. All surfaces bear numerous small, but true spines. Those on the dorsal and internal surfaces tend to be bigger than those on the ventral and external. The merus bears 0, 1 or 2 strong spines distally on the ventro-external margin. Dorsally the distal margin bears 2, 3 or 4 moderately large spines. In some specimens, the dorsal and ventral surfaces bear a number