where Panulirus ornatus exists, as the most southern and western station, to the shores of India and Japan, where Panulirus japonicus, Panulirus burgeri, and Panulirus fascictus are found.

## Panulirus guttatus (Latreille).

> Pulinurus !/uttatus Latr., Ann. du Mus., iii. p. 393.
> $\quad " \quad, \quad$ Milne-Edwards, Hist. des Crust., t. ii. p. 297 , pl. xxviii. fig. 1.
"Antenuular somite armed with two very large conical teeth sometimes preceded by two rudimentary spines. Carapace very spinous; two spines upon the median line of the gastric region, near the base of the rostral horns, and on each side of these last, upon the anterior border of the carapace, are two teeth nearly as large as they. Anterior border of the epistoma is armed with three subequal conical teeth, separated by a series of small teeth. Peduncle of the outer pair of antennæ very spinous below, second pair of pereiopodia a little longer than the others. Pleon smooth and presenting near the middle of each somite a transverse piliferous groove, which is not interrupted upon the median line in the three first somites. The lateral horns of the pleon are produced to a single tooth. The colour of the animal is green with numerous circular yellow spots; penultimate joints of the pereiopola longitudinally striped with green and yellow.
"Length 7 to 8 inches.
"Habitat.-Antilles."-Milne-Edwards, loc. cit.

## Panulirus guttatus, virr. (Pl. Xa.)

Antenuular somite armed with two sharp conical teeth on the anterior border. Dorsal surface smooth ; three small sharp teeth on the median line on the gastric region, and on each side two large supra-orbital teeth, (called rostral horns by Milne-Edwards) sharply pointed and directed forward above the base of the ophthalmopoda; behind these are two other important but not very large sharp teeth, and a row of smaller and gradually decreasing teeth, sharp at the point but large at the base, is continued to the posterior marginal suture of the carapace; these are more conspicuously determinable in the female than in the male. There is a large and well-developed tooth within the anterior margin, corresponding to the first antennal tooth in the typical structure, and another corresponding with the outer antennal tooth of the same ideal type; these two teeth are probably those that Milne-Edwards describes as being the two large teeth on the anterior border. The frontal margin of what Professor Milne-Edwards calls the epistoma, but which appears to be demonstrable as the first or coxal joint of the second pair of antennæ, is armed with three subequal conical teeth, separated by a series of four small teeth on each side of the central one. Peduncle of the outer antennæ armed with short spine-like teeth, more numerous on the upper surface than on the lower, which is also smoother. Second pair of pereiopoda, a little longer than the others

