

Differences compared with the medium-sized males were:

(1) In the 85.4mm male, the granules under the palm and arm are rounded, presumably due to wear. The engagements listed in Table VIII produced at most very feeble sounds in this specimen. In the other unworn specimen "normal" sounds were produced.

(2) In both specimens, the inner carina of the movable finger engages dorso-ventrally with the third anterolateral tooth to give an additional engagement (30c). There is a similar horizontal engagement (53c), which does not occur in medium-sized males of *O. ocellatus*, but which is the same as one occurring in males of *O. iridescens*.

(3) As in *O. iridescens*, the anterior border of the arm engages fewer anterolateral teeth in large males than in medium-sized ones. Thus engagements (69), (69a) and (69b) do not occur.

Overall in *O. ocellatus* as in *O. iridescens* there are fewer sound-producing engagements in large males than in medium-sized ones.

#### C. Females of *O. ocellatus*

Engagements resemble those of medium-sized males, excepting that in Table VIII, engagements 1 and 2 are performed with the upper carinae of their respective dactyls, not the lower ones.

#### D. Juveniles of *O. ocellatus*

Engagements generally resemble those in females (allowing for more feeble and high-pitched sounds) although the following do not occur: (32b), (33a), (56), and 12. Because there is no obvious boss on the inside of the arm, the following also do not occur: 13, 14, 20.

Summarising: in *O. ocellatus* the total number of engagements is of the order of 35 in large males, 40 in smaller males and females, and 32 in juveniles. In a worn specimen of a large male, some 10 engagements produced virtually no sound, leaving 25.

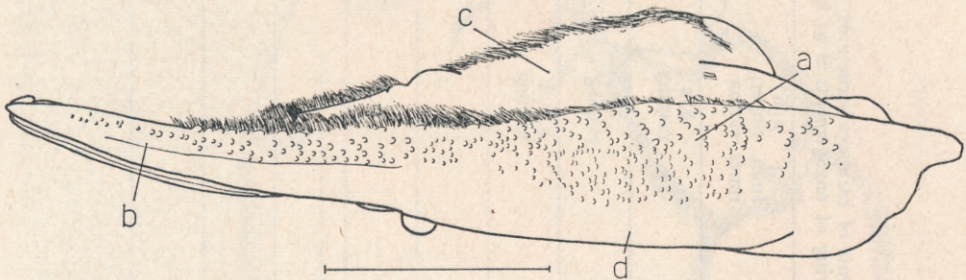


FIG. 7.—*O. gadulpensis* (Saussure) form a. Ventral surface of hand and immovable finger of right cheliped; (a) under surface of palm, (b) immovable finger, (c) inner and (d) outer surfaces of palm. Scale = 10mm.

#### E. Comparison of *O. gadulpensis* with *O. ocellatus*

In *O. gadulpensis* engagements are very similar to those in *O. ocellatus* with the following exceptions:

(1)–(9) louder than in *O. ocellatus* because the granules under the palm are better developed (Fig. 7).

3 is unnatural, and (32a), (32b) and 12 do not occur.

16, an apparently important engagement in *O. ocellatus* does not occur in *O. gadulpensis*. This is because the pterygostomial striae are so salient that the more distal portion of the upper border of the arm cannot engage the cuticular arc.