used against the appendages of larger or tougher prey by repeated strikes, as long ago witnessed by Wheeler (1900), and many times by myself. This attack by dismemberment would hypothetically require less use of the sting. Unfortunately the differences in mandibular morphology did not impress me with sufficient force until a late stage of this study, and despite numerous opportunities in the field, I am afraid that I have no good behavioral data that bear upon the topic.

Morphological primitiveness of the long-toothed mandible is assumed from the widespread presence of the long-toothed state in the presumed ancestral taxon, *Anochetus,* from the direct application of the reduction rule («Lamarck's Arrow» or «Williston's Rule») to the number and size of teeth on the mandibles, from the correlation of the bludgeon-and-shears type of mandibles at the opposite end of the series with another reduction character, the 3-merous labial palpi, and from the greater morphological diversity and geographical discontinuity of the long-toothed groups.

2. Palpal segmentation (female). The 4, 4 formula is undoubtedly primitive in *Odontomachus,* by both the ancestor-group and reduction rules. The *haematodus* group has 3-merous labial palpi, representing a segment lost by fusion.

3. Sculpture and pilosity-pubescence (female). It is difficult to decide whether in the genus as a whole striation of the entire dorsal surface of the head is a primitive or an advanced character state; this character apparently has suffered some reversals within the genus, as it may have done also independently in *Anochetus.* Extensive striation, or other fine sculpture departing from a smooth surface of the gaster, however, seems to be restricted in *Odontomachus* to the *ruficeps* and *haematodus* groups, which on grounds of the structure of mandibles, head and petiole appear to be closely related. As a correlated state, then, the smooth gaster appears to be primitive. The striate gastric surface (also coarse gastric punctation) appears in *Anochetus,* apparently as a convergent, or at most a parallel, development.

High-density pubescence (particularly of the gastric dorsum), and to some extent abundant longer pilosity, are derivative in *Odontomachus,* and are of course partly correlated with sculptural traits, but intra-group reversals have apparently occurred in both sculptural and pilosity-pubescence states.