

correlated with antennal atrophy (atrophy practically only of the third joint, and consequent loss of olfactory function).

As correlated in importance with facial plate specialization among external adult characters but of less value, it is interesting to note that excessive macrochaetal development has taken place in several stocks and probably by parallelism. The following groups, arranged by families, exhibit spinose-macrochaetal specialization:—*Hystriciidae*, the climax of all (*Dejeanini*, *Saundersiini* pt., *Hystriciini*, and *Larvaevorini* pt.); *Masiceratidae* (*Blepharipézini*, *Belvosiini* pt.); *Exoristidae* (*Pyrrhosiinae* pt.—*Tropidopsis* and *Paragymnomma*); *Dexiidae* (G.-U. s. *Echinodexiiae*, *Tropidodexiiae*); *Megaprosopidae* (G.-U. *Megaprosopiae*); *Phasiidae* (G.-U. *Amphiboliiae*).

The wisdom of separating the *Megaprosopidae* from the *Dexiidae* and of maintaining them on a par with and more allied to the *Oestridae* may be questioned. It may be argued that the presence of macrochaetae allies them more with the *Dexiidae*. We know, however, that their maggots are of peculiar structure, that of *Microphthalma* at least being quite thickly clothed with long bristly hairs and representing the extreme development of bristly vestiture in the first-stage maggots so far as known, while its cephalopharyngeal skeleton is of a distinct type from the dexiid. Their uteri are of markedly different type from the form typical of the *Dexiidae*, being known to be very long and irregularly coiled in both *Microphthalma* and *Megaprosopus*. Their segregation is thereby demanded since these characters strongly reinforce those of the facial plate. The absence of macrochaetae in the oestrids is due to their aerial life-habit, which is not shared by the Megaprosopids.

It is possible, notwithstanding the facial and oral characters, that the *Trioxodini* may be found on investigation of their reproductive system and first-stage maggots to belong with the *Dexiidae* rather than with the *Megaprosopidae*. They almost certainly have a uterus of the continuous-canal type and it is quite possibly of the fat and shortened dexiid type, but the final test of family position here will lie in the type of pharyngeal sclerite possessed by the first-stage maggot. These flies are very rare, at least in collections. The only known specimens are two collected by myself on tree-trunks in the mountains of the Rio Gila headwaters in