

yet it must be borne in mind that there would appear to be no very well marked distinctions between the warty spindles called "Stachelkeulen" by Kölliker and those spindles with foliaceous tops, called by him "Blattkeulen." Sometimes the flattened terminal crown of excrescences of a Stachelkeulen will be found to assume almost an identity of shape with those of some of the attenuated "folia" of some Blattkeulen.

It must also be remembered that there has been a great deal of confusion as to the limits of the genera in this family, and even, as has already been pointed out, a misunderstanding as to its leading characteristics, which date from the days of Linnæus, and which, from the impossibility of our obtaining many of the type species of Esper and Lamarck, we cannot hope to have in every respect cleared up.

An examination of the species in the museums of Erlangen, Paris, and London, will be needed ere many points in doubt can be cleared up.

That the presence of a dense layer of "Blattkeulen" in the cœnenchyma of such species as *Mopsella retifera* (Lamarck), *Mopsella coccinea* (Ellis), *Mopsella elongata*, Gray,¹ will easily distinguish them and allied species from most of those here referred to *Melitodes* will not be contradicted. While this feature was already pointed out by Kölliker, it assuredly never entered into Dr. Gray's conception of the genus *Mopsella*.

The distinctions also between the genera *Acabaria*, Gray, and *Psilacabaria*, Ridley, seem not to be very well marked, but the time has not come for accurate limitation of the various species, and in the meanwhile the following may stand as an emended diagnosis of Verrill's emended genus *Melitodes*.

Colony adherent, branched; branches very frequently in the one plane, but sometimes ramifying in several planes. The main axis and the branches consist of soft (nodal) and hard (internodal) joints, alternating. Branches proceeding (with few exceptions) from the nodes, more or less freely anastomosing. Both nodes and internodes are formed by sclerogorgic tissues, which become dense and more calcareous than horny in the internodes, and in the nodes remains more horny than calcareous, while the spicules are much less consolidated together. The longitudinal canals penetrate both series of joints. The cœnenchyma varies much in denseness and contains an outer layer of spiny spindle-shaped spicules (Stachelkeule); half-sided spiny spicules, these latter often very well developed; perhaps in the species of no genus is there to be found a greater diversity in the form of the spicules, and owing to the manner in which they interlock with one another, it requires some care to determine their perfect shapes. In the neighbourhood of the verrucæ spiny and bent spicules with spiny apices occur. The polyps are retractile within more or less prominent verrucæ.

¹ This is not *Mopsella elongata*, Verrill.