## A REVISION OF THE DELTOID MOTHS-SMITH.

but accompanied also in every case with little tufts of cilia arising from smail tubercles set into sensory pits of the most diverse character and varying greatly in number. Often the joints are clothed with scales which are somewhat elevated at tip and so arranged as to make them seem serrated or marked at the edges, an appearance not borne out by the joints themselves when denuded. The bristles become gradually longer, and are then reinforced by small processes or teeth which are pitted and give rise to sensory hairs. Usually there are tubereles also, or little pegs set in large pits, and from these arise single hairs or little tafts. The bristles gradually change to pectinations, long or short, never more than one to each side of each joint, and these in turn are formshed with lateral ciliations, regular or irregular. Sometimes there is a stout bristle inserted near the tip of the pectination, in a deep pit, a l<sup>it</sup>tle protuberance on the branch giving additional support. There is also considerable variation in the length of the pectinations, and as they increase in length they usually become less robust. Where they are short and stout additional tubercles or pits with tufts or single hairs become more numerous.

In addition to these normal structures of the antennæ there are others that are decidedly nuusual, always placed at about one-third from the base. This abnormity may consist of a mere thickening of the sealy clothing, the individual scales becoming larger in every direction, and they may or may not cover a slightly enlarged joint or two. Sometimes beneath the tuft of scales one, two, or three joints will have, in lieu of 'ordinary pectinations, stont, short, pointed, straight or curved, brown, corneous processes, two of which are usually contiguous at tip, so as to seem under a low-power hand leps the point of a single process. Where such processes occur the joints are often considerably broader and shorter and sometimes have numerous pittings with or without bristles, hairs, or pegs. In such cases, also, the pectinations or lateral processes of the autennae are wanting, or at least much abbreviated, on the inner side from the base to this specialization. These processes attain their maximum development in Zancloquatha, and are always associated with a pectinated or strongly bristled antenna, and with strongly tufted anterior legs. Associated also with the modifications of the joints there is a greater or less marked change in the continuity of the antenna as a whole, sometimes amounting to a distinct curve.

In *Tetanolita* we have a distinct departure in a different direction in the form of a pointed tuft of hair on the inner side, covering no special modification save two slightly enlarged joints. In *Renia* the modification has assumed more definite form, and the tuft becomes quite prominent. We notice also that the antennæ are more slender beyond the tuft, that there is a tendency to curl, and that there seems to have been quite a definite change in structure at the point covered by the tuft. After proper preparation for study under the microscope this is seen to be the fact, one of the joints being much elongated and also

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