

ART. LIII.—*Arachnids: the Small Pond in the Forest.*

By TAYLOR WHITE.

[*Read before the Hawke's Bay Philosophical Institute.*]

ON a certain day, towards the end of the spring of the year 1894, I was employed felling a portion of light bush—that is, in other words, clearing a piece of land overgrown with small-sized trees—and, becoming thirsty, went a short distance to where a small pond or hollow was full of nice clear water, shaded by the overhanging scrub. On kneeling down at the edge of the water I noticed a kind of dust or minute particles floating on the surface. Observing these attentively for a short time, it was seen that the supposed dust was composed of multitudes of almost microscopic creatures. These small objects were so minute that their exact form could not be perceived, but from their actions and habits I have little doubt that they were a species of Arachnid, closely allied to the spider kind. Numbers were seen at intervals clustered together, and these clusters of mites were evidently surrounding the bodies of small flies or insects which had fallen on the surface of the water. No doubt the mites were employed feasting on the bodies of drowned insects, most of which were so small as to be nearly imperceptible to the human eye. These small Arachnids could travel over the surface of the water at great speed—in fact, they lived on the surface, and did not enter the water, but travelled over the surface as easily as if the water were solid or compact ice. Single Arachnids would come from the crowd and rush away over the water and join other groups of Arachnids, and by close observation the surface of the water was seen to be teeming with these small creatures, and they were all moving and changing places continually. In a great measure they reminded me of a large assemblage of people at a skating carnival.

Below the surface of the water were other creatures which came in sight occasionally, and if my memory is not at fault I have seen these, or a closely allied species, in England. As a boy I knew them by the name of “boatmen”—not the water-beetle which is sometimes so named, but quite a different creature. These were of a yellowish-brown colour, the body perhaps  $\frac{1}{2}$  in. in length, and much like a bit of stick or a twig. Only two legs were perceptible, and these stood at right angles to the body, and resembled oars. These oars were placed “a little forward of amidships,” as a sailor would

say. At intervals a "boatman" would come to the surface and then dart away in a horizontal direction. A favourite amusement was to rush furiously at another of their kind and "ram" him in the middle of the body with the head and then go off in another direction, not staying to do battle, or to give the injured one an opportunity to retaliate.

I took particular notice to see if the "boatmen" ate or otherwise interfered with the minute Arachnids; but they seemed to pay no attention to them, nor did the smaller creatures show any sign of fear or hurry in the presence of a "boatman." Not having any microscopical appliances with me, or time to make further study of these small Arachnids, I am unable to give further information on the subject, and perhaps may never see the like again.

The pool of water is still there, but a large fire has passed over the land, and, all shelter being now removed, it is not likely that these creatures would find the pool a suitable position to increase and multiply as heretofore.

I forwarded a description of the habits of these little objects to one who is well versed in these subjects, but he said that such had not come under his observation. They certainly are of a sort which are seldom seen, and, I would suppose, difficult to find. The speed with which the single Arachnids skated over the water was something marvellous; but in the clumps where they collected about an insect body close attention had to be given to make certain they were not dust particles wafted by the breeze over the surface of the pool.

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