



DEEP-SEA MOLLUSKS LIVING AT A DEPTH OF FROM 1,500 TO 2,500 METRES. (Taken from *La Nature*.)
Calliostoma, Modiola, Fusus, Dentalium, Turbo, and Cerebratula are represented.

THE ENTOMOLOGY OF A POND.—(*Knowledge*.)

By E. A. BUTLER.

Our aquatic insect fauna is both extensive and interesting. The habits are varied and the forms peculiar in consequence of the structural modifications rendered necessary for their adaptation to an aquatic mode of life. They can, moreover, be easily studied, even in the home, by help of suitable aquaria, and, hence, we hope that a few papers devoted to their consideration may be not unacceptable. The insect inhabitants of a pond constitute tolerably well-defined groups, differing according to the area of their distribution. You find one set almost exclusively on the surface, which they rarely leave either for excursions into the depths below or the air above; another in the middle depths, where they disport themselves in all directions, occasionally also visiting both top and bottom, and even escaping upwards into the rarer element; another on the bottom, where they grovel amongst the mud; another, again, round the margin, where, like children at the seaside, they dabble about in the wettest parts, and even let the tiny ripples play on their very feet; and yet another, gracing with their presence the air above the pond, scudding about in search of the two great desiderata of an insect's life, food and mates. We will first turn our attention to

THE SURFACE,

The fauna here is almost exclusively Hemipterous, consisting of bugs belonging to the remarkable section *Hydrodromica*, or Water-measurers. These curious beings will have attracted the attention of even the most unobservant. Blackish spider-like creatures floating on the surface, and jerking themselves rapidly along by vigorous strokes of their long thin legs,

leaving little rippling eddies behind them, they will have excited wonder by the apparent impossibility of their submersion, and by the confidence with which, therefore, they trust themselves to what is, to most creatures, the treacherous element. It is not easy to catch them; they are wary and shy, and can calculate with considerable exactitude the area of pond surface that can be covered by the water-net of the expectant biper on the bank, whom they seem to take a delight in tantalisingly watching from just outside the charmed circle. Let him hide behind a bush and wait till they appear on the other side, and then come round with a dash and a swoop of the net—they are equal to the emergency, and before the weapon can reach the surface, a few bold strokes of those long slender legs have carried them in an instant out of harm's way.

Cautious attempts, however, after a time result in the enclosure in the net of some stray individuals less wary than their fellows; but even then their ultimate capture is not a foregone conclusion—those same spindleshanks come to their assistance again, and, unless their would-be captor is vigilant, with a few bold leaps they will be out of the net, and hopping off in all haste through the grass to the water, which, once reached, they will sail gayly away. Suppose, however, we have managed to secure a specimen of the commonest species, *Gerris lacustris* (Figure 1). Let us proceed to examine it. It is a blackish creature, with an orange edge to its narrow body, and a little over $\frac{1}{2}$ inch in length. The head is prolonged into the customary beak, characteristic of the Hemiptera, bent back as usual underneath the body. The wings lie so closely along the back as almost to escape observation, but if we can manage to open them, we find that the upper pair are opaque and tolerably stout, but the under pair thin, membranous, and semi-transparent. They are very neatly packed away, and the upper pair overlap at the