

common in the September gathering, but was not observed in any of the other three. *Diaptomus gracilis* was frequent in the gathering collected in December, but was scarce in the others. *Bythotrephes longimanus*, though present in both the September and June gatherings, was not observed in those collected in December and March. *Cyclops strenuus*, though present in all the gatherings, was scarce.

A few male *Daphniæ* were observed in the December gathering, but in none of the others; females with *pseudova* were frequent in all the gatherings. When the loch was examined in June, 1890, both *Daphnella brachyura* and *Polyphemus pediculus* were observed in the tow-net gatherings, but neither of these species was obtained in any of the gatherings recently collected. Infusoria and micro-algæ, which were moderately frequent on the first three occasions when the loch was examined, were quite abundant in the loch in June, but these minute forms did not appear to be generally diffused, apparently occurring in shoals, and being particularly plentiful to the south of Reed Bower.

The examination of the shore yielded a much greater number of species than were captured by the tow-nets, but individuals were not nearly so numerous. Fifty-five species of Crustacea were obtained in the shore gatherings collected during the recent experiments. The records of species obtained when the loch was examined in 1890 include a few that were not observed in the recent gatherings (viz, *Cypria ersculpta*, *Candona lactea*, *Ilyocypris biphcata*, *Bosmina longirostris*, *B. longispina*), and if these and the species captured with the tow-nets be added, they increase the number of crustacean species to sixty-five; it is quite probable that even this number will yet be added to when the loch comes to be more thoroughly examined. Only five species were observed in all the gatherings in 1890, 1897, and 1898, viz, *Canthocamptus staphylinus*, *C. minutus*, *Cypria ophthalmica*, *Candona candida*, *Chydorus sphaericus*. The species recently captured include one Amphipod (*Gammarus pulex*), and eighteen each of Copepoda, Ostracoda, and Cladocera. The largest number of species of Crustacea obtained in any of the recent shore gatherings from Loch Leven was in that collected on 13th June. This gathering yielded thirty-nine species, or only four less than the total number observed in the tow-net and hand-net gatherings collected in June, 1890.

The Cladocera, as a whole, were scarcer in those gatherings collected in the colder months than in the others. It may also be stated that in March the level of the water was much higher than during any of the other visits, and this no doubt accounted, partly at least, for the great scarcity of Cladocera in the gathering collected at that time; the reduced temperature incidental to the season may also have had some influence in bringing about this result.

*Rainfall and Outflow* —An attempt has been made to arrive at an