

to me. Probably few Ottawa naturalists have had the opportunity of studying these wonderful little creatures, and I venture, therefore, to present a few notes on their structure and peculiarities.

They are crustaceans, of the order Phyllopoda, sub order Branchiopoda. The body, which is of a glassy transparency, is about half an inch long, the head being very distinct, though there is no line of demarcation between the thorax and abdomen. The eyes, antennæ, limbs, heart and forked tail, when examined through the microscope, are very beautiful. They are typical Entomostraca, for the body is divided up into segments. The anterior antennæ are short and delicate and difficult to distinguish. In the male the head is large, broad, and the posterior antennæ are converted into claspers, having the base very thick and massive, while the tip is knobbed or rather hooked. The eyes are very remarkable and quite unlike any other crustacean, so low in zoological position. Carl Gegenbaur, in his "Elements of Comparative Anatomy," draws special attention to the unusually interesting character of the eyes. The Entomostraca, as a rule, possess very simple eye spots, but in the Phyllopods, as Gegenbaur states, "we meet with a faceting of the inner surface of the cuticle covering the eye, the facets corresponding to the crystalline cones." The German anatomist further points out "by their power of movement, and their position immediately below the chitinous carapace the eyes of the Branchiopoda form an intermediate step towards those in which the chitinous carapace takes a more direct share in forming the optic organ." Further, the position of the eye, on a stalk-like process (in *Artemia* and *Branchipus*) presents a point of affinity to the higher crustaceans, such as lobsters, crabs, etc., which possess projecting stalked eyes.

The last segments of the body form a long slender tail, the terminal fork being exquisite in appearance, for under the microscope it is like burnished gold, and studded with innumerable glassy hairs. In front of the tail, the body is furnished with a large number of limbs, so modified as to perform the double function of locomotion and respiration. They are virtually gill feet. The heart is a long tube, made up of a series of chambers, and, as is usual in Arthropods, it is dorsal. The circulation of the blood, driven by this pulsating heart tube in the