

shown that this very same common race, which inhabits the fresh waters of the Arctic and which is nearly related to the race from the high alpine lakes in Switzerland, is the very same race which in winter inhabits the Baltic fresh-water lakes and from which the numerous local summer races proceed (fig. 62, upper row, compared with fig. 60, lower row).

We have now obtained the material from which it is possible to

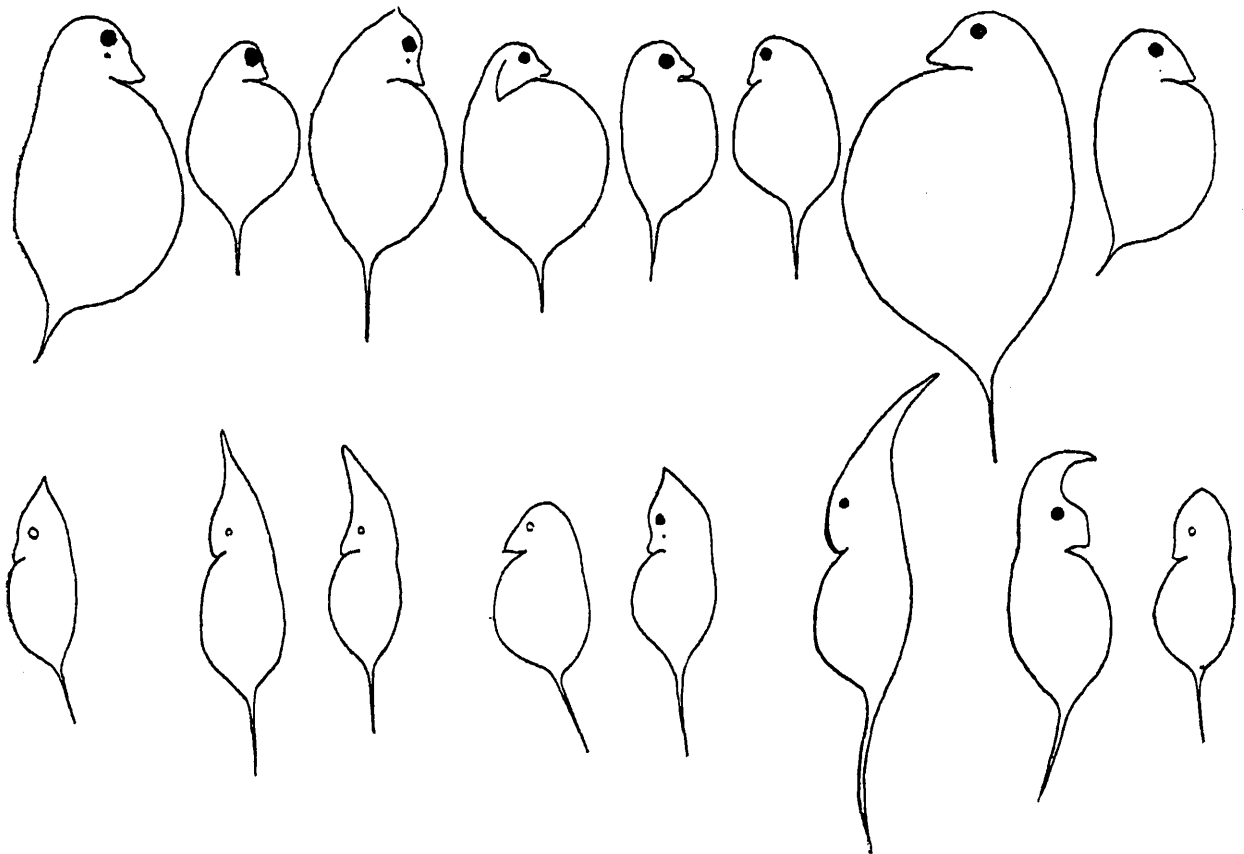


FIG. 62.—*Daphnia hyalina*. Upper row: summer forms from lakes which rarely or never reach a temperature of about 12–16° C. (Achensee, Brehm; Sarek, Ekman; Thingvallavatn, Wesenberg-Lund; Myvatn, Wesenberg-Lund; Kola, Levander; Mjösen, Huitfeldt-Kaas). Lower row: summer forms from lakes which annually reach more than 12–16° C. (Viborgsö, Wesenberg-Lund; Esromsö, Wesenberg-Lund; Tjustrupsö, Wesenberg-Lund; Västergötland, Lilljeborg; Pomerania, Seligo; Haldsö, Wesenberg-Lund). The local variation is very inconspicuous in the cold lakes, but very prominent in the warm lakes.

understand why all the local summer races are in our lakes condensed into one single race in the winter time.

INFLUENCE OF THE ICE AGE ON THE FRESH-WATER PLANKTON

During the tundra period the northern part of Central Europe was covered with innumerable lakes and pools which remained after The colonies of the single lake thus escape isolation, and race-formation cannot occur. The main cause why a species is able as plankton organism only to form its resting-stage in the Arctic is probably that the arctic lakes have not the high summer temperatures. Thus, also, the rate of sinking is never so great in the northern lakes, and the mother-animals are therefore able to form and carry the resting-stages, which undoubtedly increase the weight of the animals.