

that they do so. There is a series of closely related species, for instance, grouped round *Ceratium macroceros*. *Ceratium arcticum* is the farthest outpost in the direction of the polar sea, and shows the greatest variation. Its three horns are extremely divergent; the centre one, which points forward, is slightly bent, and so also are the other two. Near the southern limit of the species there are more and more instances, in a series of transition forms, where the two posterior horns bend forward, till we get to *Ceratium longipes*, the characteristic form of the Norwegian Sea and North Sea during the first half

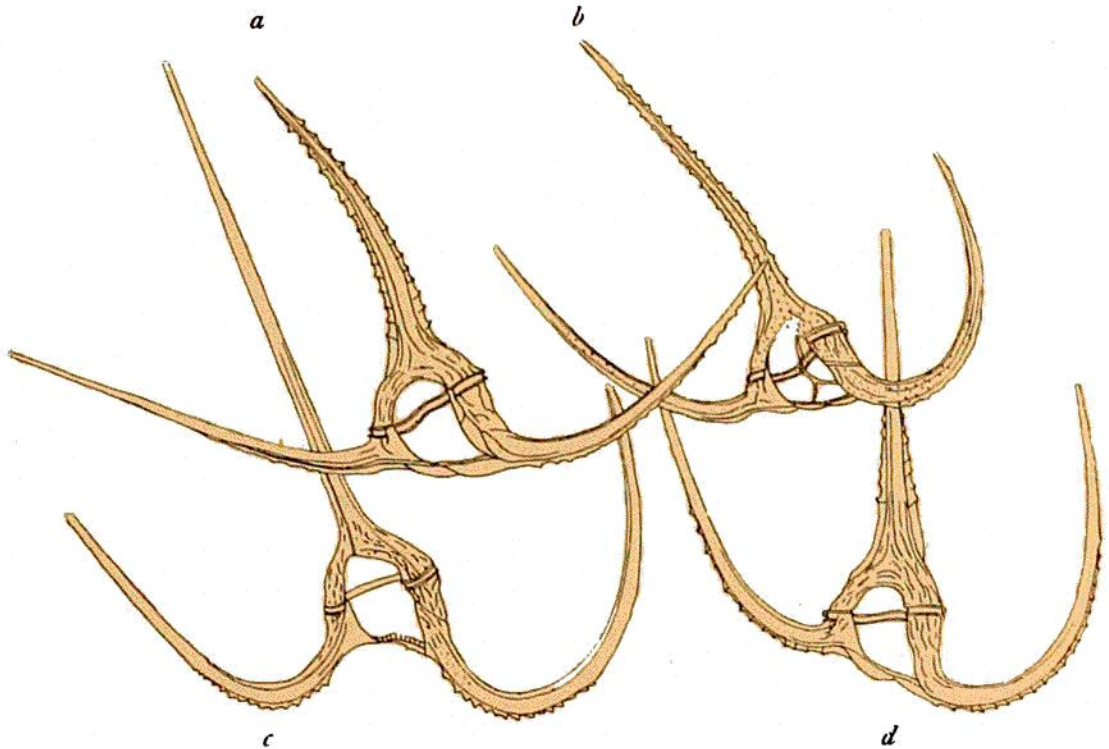


FIG. 246.—SPECIES OF *CERATIUM* BELONGING TO THE TYPE OF *C. MACROCEROS*, NORTHERN SPECIES.

a, *C. arcticum*; b, *C. longipes*; c, *C. macroceros*; d, *C. intermedium* (1877). (Jørgensen.)

of summer. In this case, the posterior horns are bent quite forward, so that their extremities are parallel with the frontal horn. In the Gulf Stream we get *C. intermedium*, which has a straight frontal horn, like the other members of this type, and all three of its horns are much longer and more slender than those of the two northern species. At the eastern limit, where fresh water from the Baltic and the coasts of North Europe reduces the salinity, and where, too, the high summer temperatures diminish the viscosity of the surface-layers, there is a species with an even better suspension-apparatus, namely *C. macroceros* (see Fig. 246). Its frontal horn is particularly long and thin, and the posterior horns first bend a little backwards, and then