feet, as is the case in other species. In the males of *Th. longispinosus* and *thompsoni*, there are only three si on the Re 3 of p. 1 in addition to the st, according to Giesbrecht.

Fig. 70. *Th. hexacanthosus*. Terminal portion of left antenna; only the primary bifurcation of the branched setae is shown.

The material obtained by the Canadian Arctic Expedition constitutes an imperfect index to the wealth of elemental life in the northern waters of Canada. The Copepods, as a class, provide fish food for food fish. There is an inexhaustible supply of this fish food in the Arctic ocean, whence it filters down into the northern seas, where commercial fisheries are carried on. By tracing out the southern extension of arctic and sub-arctic forms, a great deal has been accomplished in giving precision to problems which await solution in the North Atlantic. Similar exploratory and experimental work is required for the North Pacific. In this way materials would be forthcoming which would enable the age-composition of the different colonies of organisms on the sea-floor to be made out. Equipped with such data we should be able to foretell the probable incidence of lean years in the fisheries. With this information at their disposal the capitalist corporations would be able to curb their tonnage so as to maintain an economic equilibrium between the market and the deep sea. This is what biological work can do for the deep sea and other fishery interests. Leaving out of consideration the salmon family and some other anadromous fishes, science cannot effectively replenish the stock of fishes in the sea, but it can claim to predict the periodicity of fluctuations when the necessary data have been accumulated after many years.

No epidemics affect the plankton, but we know that higher animals are liable to various disorders and derangements whereby their numbers are reduced. The presence of an abundant food-supply does not unfailingly attract a multitude of feeders, and this fact, well-known to marine biologists and other naturalists, but not so well known to those who have had no actual experience in the matter of the interdependence of organisms, indicates that while there is no limit to the supply of primary food-stuffs in the sea, there are limits, in some cases very narrow, in others very wide, but always very definite, to the valuable species which subsist directly or indirectly upon this food.

Whilst investigating the distribution and periodicity of the food-organisms, the biologist is brought into contact with the feeders, and though his methods of extracting secrets from the sea may be slow, yet they are sure. Not sensa-