Research vessels of Japan, Canada and the United States have carried out plankton investigations in recent years as a part of studies to clarify various environmental characteristics of the waters where salmon are distributed. It was agreed that North Pacific Standard nets would be used and sampling would be by vertical hauls from a depth of 150 m.

In 1963 and 1964, Japan carried out investigations in the northwest Pacific on Euphausia pacifica and Themisto, which are vitally important as salmon feed, by use of sonic fishfinders. As a result of those surveys, the following results were obtained. In the northwest Pacific, from June to August, between midday and sunset Euphausia pacifica moves up from a depth of about 250 m to a depth of 30-50 m, while Themisto moves up from a depth of about 150 m to a depth of 30-50 m. From night to sunrise they both move back again into deeper layers.

Therefore, adequate care must be given in using plankton nets to study plankton which is important as salmon food organisms, especially as concerns depth. Several methods can be considered, such as determining the depth for each haul by detecting the distribution of the plankton with a sonic fishfinder, or always hauling from the 50 m level 2-3 hours after sunset. However, the former method, employing the sonic fishfinder, is considered to be better if a plankton collection is to be made at every station where oceanographic observations are made.

For the reasons given above, it is proposed by Japan that in carrying out investigations of food organisms in the area where salmon are distributed and of the relation between their quantitative distribution and that of salmon, this method be used, as it is thought that there is need for improving the present method of using the plankton net.