

The deep-sea octocoral collections of the Telegraph Company “Det Store Nordiske” during 1871-1957 from Japanese waters

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The Pacific Ocean and the Far East including Japan were explored since the 18th century and scientists have described several marine organisms from this region. NHMD (previously ZMUC, Zoological Museum University of Copenhagen, Denmark) is known to have the famous deep sea Galathea expedition collection. They also have another well-known marine invertebrate collection, of Dr. Mortensen's Pacific Expedition in 1914 which includes several Japanese deep-sea octocorals. Both expeditions were conducted for scientific purposes. However, there also exist a unique collection donated by Det Store Nordiske before the scientific expeditions.

Det Store Nordiske Telegraf-Selskab A/S (The Great Northern Telegraph Company) was not performed by scientists but the Danish Underwater Telegraph Cable company established in 1869 at Copenhagen, Denmark. Previously described 13 type specimens of octocorals collected by Det Store Nordiske from the North West Pacific are deposited in Museum of Evolution, Uppsala University, Sweden.

To characterize Japanese deep water benthic fauna, we conducted a survey of unidentified Japanese octocorals in the collection of NHMD during 2012-2015 (Matsumoto 2014, 2015). The survey revealed a big contribution by Store Nordisk to the deep sea octocoral fauna around Japanese water during the years 1871 to 1957.

In the database of NHMD before the survey, there was a total of 107 octocoral specimens by the collectors of Det Store Nordiske, 75 from the North West Pacific, 3 tropical West Atlantic, 26 Indo-Pacific, 2 Mediterranean, and 1 unknown locality. According to our survey, total 128 specimens from the North West Pacific were counted and sorted in NHMD. As a result, the new species of Det Store Nordiske collection in NHMD was described and was named after the collector belonging to the company (Matsumoto & Ofwegen, 2015). In this manuscript, we are going to show a second species which was also found in misidentified material of the U.S. Albatross Expedition collection in the Smithsonian Natural History Museum, U.S.

Because of environmental changes, we can never collect again some species which could be collected 100 years. The historical collection in the museum of the university helps us to understand the past environment and fauna for the long term, such as more than 100 years' accumulation of human or natural impact.

References

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