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ECHINODERM COLLECTION OF THE ZOOLOGICAL INSTITUTE OF RAS AS INFORMATION BASE OF FUNDAMENTAL BIOLOGICAL INVESTIGATION [poster]

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Two years ago the Zoological Institute of RAS (ZIN) has started realization of a concrete fundamental problem which consists in development of algorithm of digitalization materials of the fund collection of the Zoological Institute considering specificity of their storage for separate systematic groups (Smirnov et al., 2016).

In 1914 it was created V invertebrates' branch to which the collection of echinoderms related. Some echinoderm specimens were collected in 1842. Unique materials have been received for 160 years of researches in different parts of the World Ocean. The data source for an information retrieval system of the collections serves. Except for cleanly scientific, historical and cognitive aspect similar work receives the important ecological sounding. In process of accumulation of collections for enough great time intervals («monitoring collections»), there is an opportunity to trace changes in sea ecosystems which occur under influence of global climatic, local hydrological and anthropogenous influences.

With usage of available ZIN server infrastructure and a created intelligence system of collection samples, expansion of a point of the publication of data on a portal of Global information facilities on a biological diversity or GBIF and the subsequent selective publication of ZIN collection data on this portal becomes possible (http://ipt.zin.ru:8080/ipt/resource?r=zin_ophiuridae).

The planned integrated intelligence system will allow to collect full enough information on an available biodiversity of Russia where each component – collections and an information databank about specimens will carry its specific functions, and system as a whole, can adequately serve needs of a biological science and technology according to modern principles and standards of world zoological collections.

Now web pages with type specimens on brittle stars, starfishes, sea urchins and holothuroids are prepared (http://www.zin.ru/Collections/Ophiuroidea/index_en.html, https://www.zin.ru/Collections/Asteroidea/index_en.html, https://www.zin.ru/Collections/Echinoidea/index_en.html, https://www.zin.ru/Collections/Holothuroidea/index_en.html).

Work is carried out within the limits of researches on state themes: «Fauna, ecology and biogeography of invertebrates of hydrosphere» (number of a theme: AAAA-A17-117030310207-3), «Inventory and development of share collections of Zoological institute»: AAAA-A17-117080110040-3 and, partially, it was carried out at support of grants of the Russian Foundation for Basic Research 15-04-02971 and 15-29-02457, and programs of Presidium of the Russian Academy of sciences on studying a biological diversity - «Inventory of a biodiversity of animals and its supply with information»: AAAA-A18-118012990224-5.