



Institute of Paleobiology
Polish Academy of Sciences
Twarda Str. 51/55
00-818 Warsaw
Poland
www.paleo.pan.pl

Description:

Since its founding in 1952, the Institute of Paleobiology, Polish Academy of Sciences (IPAL PAN) has advanced its mission to understand the fossil record as a foundation of knowledge about the history and evolution of the living world. Among its 42 staff members, 20 are researchers. They are talented, passionate and enthusiastic people motivated to conduct cutting-edge multidisciplinary research. The Institute encompasses a rich diversity of scientific expertise that ranges from descriptions of fossil biota (vertebrates, invertebrates, plants, and microfossils of various origins) to interdisciplinary research at the interface of biology, geology, and related fields. Particularly relevant from the present day perspective of climate variability and change are the broad questions addressed in Institute's research that include how the environmental change, measured over millions of years, can drive biological evolution, and how evolution may also affect environmental conditions. The Institute is renowned for its paleontological collections acquired during expeditions organized in Poland and in various areas of the world (Mongolia, Spitsbergen, Antarctica). Small part of this natural heritage is available for public as exhibitions of the Institute's Museum of Evolution, thereby creating an awareness of the fundamental principles underlying the evolution of life on Earth. The Institute publishes one international scientific periodical the *Acta Palaeontologica Polonica* (listed in JCR).

Discipline:

Earth and Environmental Sciences

Fields of activity:

- Functional and evolutionary morphology, phylogeny, paleobiology and taxonomy of invertebrates and vertebrates;
- Biomineralization processes in space and time;
- Experimental taphonomy;
- Evolution of benthic (including chemosynthesis-based) and nektonic ecosystems;
- Paleoclimatic and environmental changes (including Arctic and Antarctic regions);
- Biosedimentology and paleogeomicrobiology.

Latest achievements:

Over last 10 years our researchers published several publications in high-profile journals (including *Science*, *Science Advances*, *Nature*, *Nature Communications*, *Proceedings of the National Academy of Sciences USA*, *Geology*, *Proceedings of the Royal Society B*, *Precambrian Research*) addressing, among others, problems of earliest evidence of life on Earth, origin and evolution of vertebrates, paleoneurobiology of mammals, and the emergence of the

coral reefs and evolution of biomineralizing organisms. The Institute is proud of ongoing excavations programs in various localities in Silesia (Triassic vertebrates) and in central Poland (exceptionally well-preserved Late Jurassic marine fossils).

Research facilities:

The Institute of Paleobiology has a wide variety of traditional and modern laboratories including: (1) Laboratories of Cathodoluminescence Microscopy (hot cathode) and (2) Microtomography (Zeiss XRadia MicroXCT-200, submicrometric resolution), (3) 3D Laboratory, (4) Electron Microscopy and Electron Microprobe Laboratory (Philips FEI XL-20, and FE-SEM ThermoFisher QUATRO S), (5) thin section and preparatory laboratories. The Library houses the largest collection of paleontological books and periodicals in Poland.