

Polish Theriological Laboratories

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ZAKŁAD BADANIA SSAKÓW POLSKIEJ AKADEMII NAUK
W BIAŁOWIEŻY

The Mammals Research Institute now established at Białowieża was first founded as the field base of the Chair of Comparative Anatomy, Marie Curie-Skłodowska University Lublin, and occupied premises made available by the hospitality of the Białowieża Branch of the Forestry Research Institute. Students preparing to take their diplomas and graduate assistants worked here on the preparation of the collections of mammals for the Institute, the Director of which was at that time the well-known ecologist Professor J. J. Karpiński, the author of the first post-war work on the mammals in the Białowieża National Park.

Our first experimental areas were established in the Białowieża National Park in 1952, and mammals were systematically collected from this time. In 1954 a small station was opened in Białowieża which was taken over by the Polish Academy of Sciences, forming a Department of the Institute of Zoology of the Polish Academy of Sciences. In 1955 this laboratory became an independent Institute of the Department of Biological Sciences, Polish Academy of Sciences.

In 1957 the Polish Academy of Sciences decided to build an Institute in Białowieża devoted to mammal research, and the realisation of this scheme was begun in 1958.

It was also in 1958 that the Mammals Research Institute took over the publication of the scientific periodical „Acta Theriologica”, which is published in four European languages (English, German, French or Russian). All works coming within the scope of research on wild mammals

can be printed in this periodical, with the exception of works of a veterinary character. „Acta Theriologica” will appear in numbers totalling from 300 to 400 pages per annum. Original works and notes by Polish and foreign authors are accepted.

Sixteen scientific workers are either employed in or co-operate with the Mammals Research Institute (certain of these are young people who have only recently obtained their diplomas). There is also a staff of laboratory assistants who provide the services required for field work, experimental breeding and technical work in the laboratories.

The scientific work of the Mammals Research Institute is conducted in the following sections:

1. Biomorphological Laboratory — the scope of work here embraces variations found among mammals in the widest sense („individual”, seasonal, age, seasonal variations in the activity of the endocrine glands and factors governing these phenomena); the population dynamics of mammals (quantitative variations, activity, settlement in a given area). The section is equipped with apparatus required for histological, anatomical and ecological work.

2. Reproductive Biology Laboratory — carries out work including descriptive and experimental embryology (cross-breeding between species, transplantation of ova, examination of the prospective potentialities of blastomeres). Investigation of bilateral cross-breeding between bison and domestic cattle is being carried out. These experiments are conducted in special enclosures about 40 hectares in area within our Animal Reserve.

3. Bioclimatological Laboratory. — The basic work carried out by this section is investigation of the quantitative and qualitative influence of light, temperature and similar factors on the course of biophysiological processes in mammals. In addition to subjects common to the general problems examined by the Institute in its normal work, the section analyses the meteorological-climatic phenomena of the Białowieża National Park, and has its own meteorological field stations equipped with apparatus for automatic and remote-controlled registration. The section also possesses a comprehensive set of electric measuring apparatus and self-recording instruments.

4. Microbiological Laboratory — examines the seasonal variations in the intestinal flora of mammals, differences between bacterial flora in animals living under laboratory conditions or in their natural state, the assimilation of vitamins and digestion of cellulose.

5. Parasitological Laboratory — works under the aegis of the Institute of Parasitology, Polish Academy of Sciences, and has so far served as the workshop for specialists from this Institute. Research work is carried out here on the dynamics of the parasito-fauna of mammals and the influence of internal parasites on the host. The publications of this laboratory are printed in „Acta Parasitologica Polonica” and in „Bull. Acad. Polon. Sci. Cl. II”.

The Institute includes a series of special premises in which the animals for laboratory experimentation are bred, and also wild *Micromammalia*, representatives of 11 species.

The Institute gives priority to the breeding of *Insectivora* (*Soricidae*) and Birchmouse (*Sicista betulina* Pall.). The latter would seem to be animals specially intended to make investigation of hibernation possible.

The photographic laboratory of the Institute possesses various types of photographic apparatus for taking field, micro- and macroscopic photographs and films.

The Institute has a Field Station at Lublin, in which work is concentrated on faunistic and zoogeographic problems.

The collection of scientific material in the possession of the Mammals Research Institute is quite considerable, and includes approximately 37,000 *Micromammalia* belonging to 23 species. A certain part of the collection (about 15,000 specimens) was transferred to the Institute by the Forestry Research Institute.

The following species predominate in the collection: *Sorex araneus* L., *Sorex minutus* L., *Clethrionomys glareolus* Schreb. and *Apodemus flavicollis* Melch. Collection of material has been carried on without a break since 1946 throughout the twelve months of the year.

The collection of bone remains prepared from the food spewed up by predatory bird includes about 50,000 specimens.

Among the larger mammals, we have quite a large collection of the skulls of wild-pig (113 species).

Only a certain percentage of our material is preserved in the form of skins, the majority consisting of specimens in alcohol or formalin, which makes it possible to use them for morphological investigations.

The scientific achievements of our group of research workers is presented by the bibliography of publications enclosed herewith, which includes only those works published since 1949, i.e. since the author of this note prepared material from Białowieża for the first time.

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