

ECOLOGICAL STUDIES ON BIRDS AT THE INSTITUTE OF ECOLOGY PAS

S u m m a r y

Various aspects of the ecology of birds were investigated at the Institute (former Department) of Ecology PAS almost since the beginning of its existence (1952). Already in the 1960s, behavioural and evolutionary ecology was developed, and then continued in the 1990s. Also habitat preferences in birds were examined, including density-dependent intrapopulation interactions. During the International Biological Programme (1964–1973), bioenergetics of birds and their chemical body composition were analysed to determine the role of birds in the processes of production, energy flow, and matter flux in various ecosystems. In the 1970s, game birds such as the partridge and ducks were examined, which were of both theoretical and practical importance to game shooting. Within the scope of biocoenotic studies, the effects of interspecific competition on numbers of birds, species composition of bird communities, and distribution of individual species in the habitat were analysed. Also trophic relations in bird communities were investigated, indicating their regulatory effect on the abundance of lower trophic levels. A separate group of sub-

jects, investigated since 1980, concerned the effects of heavy metals, pesticides, and pathogenic microorganisms on the condition and survival of birds. Ornithologists working at the Institute were also involved in the studies conducted in the Antarctica, where they estimated numbers, distribution, and breeding biology of many bird species. Also the evolution of ornithogenic soils was investigated at the rookeries of penguins and long-term monitoring of penguin numbers was carried out in the Admiralty Bay (Southern Shetlands). In 1990, when the Ornithological Station in Gdańsk was affiliated to the Institute, the research covered also bird migrations and cartographic atlas for breeding birds of Poland. In different periods, from 4 to 28 ornithologists were employed at the Institute. Over the 50-year period they published almost 400 scientific papers and articles, many books edited in Poland and abroad, and they prepared many expertises concerning nature protection and conservation. They organised more than 10 international symposia, and they also performed many important functions in national and international organisations.