

On the study of bird migration in the Soviet Union

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In the Soviet Union much attention is paid to the study of bird migration. The oldest organization acting on a voluntary basis in this field is the Baltic Commission for the Study of Bird Migration, founded in 1955. At the present time there are altogether nine such regional commissions in the U.S.S.R. Their activities are coordinated by the Coordinating Council for the Study of Migration and Orientation of Birds, attached to the U.S.S.R. Academy of Sciences. In 1956, the Rybachi Biological Station of the U.S.S.R. Academy of Sciences was set up to replace the previous Rossitten Ornithological Station. The station carries out large-scale ringing of birds, and particularly conducts physiological research. Long-term research on bird migration is also carried out at the Puhtu Ornithological Station.

In 1973, a Coordinating Council for the Study of the Migration and Orientation of Birds was set up at the U.S.S.R. Academy of Sciences. This council is an administrative centre for coordinating research on bird migration. The Council consists of three permanent sections: a section for medical and epidemical problems, a section for problems relating to aviation technology and a section for problems of game management. Nine regional commissions have been attached to the Council for the Study of Bird Migration; they are the Baltic, Central Asian and West Siberian, Volga-Urals, Ukrainian, Belorussian, Moldavian, Georgian, East Siberian and Far Eastern Commissions. In addition, five special teams are attached to the Council — those for ringing, international relations, colonial birds, birds of prey and problems of the Caspian Sea.

Intensive research on bird migration is carried out in the Soviet Baltic republics. Here the organizing and coordinating centre is the Baltic Commission for the Study of Bird Migration, set up in 1955. The functions of the Commission are to study the visible migration, invasions and wintering of birds, to organize and record ornithophenological and other observations, to organize the ringing of birds, to study theoretical problems connected with bird protection, to convene ornithological conferences and meetings, to publish the "Communications" of the Commission, to promote cooperation with other institutions, and to propagate the results of studies on bird migration and preservation. At present the Baltic Commission for the Study of Bird Migration consists of twenty members.

Over the twenty years of its existence the commission has organized studies of the following problems: visible bird

migration, radar observations, the passage of waterfowl, moult migration and wintering, ringing of birds, migration physiology (including orientation) and bird protection.

The most influential institution in the Soviet Union for the study of bird migration is the Rybachi Biological Station on the Courish Spit, working under the auspices of the Institute of Zoology of the U.S.S.R. Academy of Sciences. The station was founded in 1956 to replace the previous Rossitten Ornithological Station. The first activity of the Rybachi Biological Station was large-scale trapping and ringing of birds. For this purpose large traps of a new type were designed and constructed. In peak periods the giant trap designed here catches from 3 000 to 5 000 birds (chiefly passerines) per day. Now that the trappers can provide ample material for experiments on living birds, the study of the migration physiology of birds has become the chief field of research at the station. In these experiments the chief object of study is the Chaffinch (*Fringilla coelebs*). Besides this the orientation and navigation of migratory birds has been studied extensively. The year 1975 saw the publication of a monograph entitled "The Migratory State of Birds" by V. R. DOLNIK, director of the Rybachi Biological Station. This book sums up the most important results of the research conducted by the ornithologists of Rybachi.

The ornithologists of Pskov and Leningrad have been continuously engaged in the study of visible migration. A strong team of investigators is working on bird migration at Leningrad State University. Those studying problems of bird migration in Karelia are cooperating with their Leningrad colleagues.

In Estonia systematic research on

bird migration started in 1953 with the foundation of the Puhtu Bird Station. A network of observation posts was set up in connection with the new ornithological station. Until 1962 the chief object of study was the migration of passerines; then the passage of waterfowl, and still later various other studies were undertaken. The Matsalu State Nature Reserve along with the Kabli trapping station attached to the Nigula State Nature Reserve on the south-west coast of Estonia organizes large-scale trapping and ringing of passerines. The activity has been coordinated with the undertakings of "Operation Baltic", a research project of Polish ornithologists.

In Latvia a strong team of ornithologists work on the staff of the Institute of Biology of the Academy of Sciences of the Latvian S.S.R. Their chief fields of study at present are the territorial behaviour of the Tufted Duck (*Aythya fuligula*) and the Shoveler (*Anas clypeata*) and the orientation of migratory birds. The research base at Raude has special laboratories at its disposal and a planetarium for conducting experiments on orientation and navigation. On the east coast of the Baltic at Pape, birds are trapped and ringed in large numbers. This work is organized in collaboration with Polish ornithologists. Large traps of the Rybachi type are used with good results in both Latvia and Estonia.

Similar traps are used at the Ventes Ragas Ornithological Station in Lithuania. In their recent studies on bird migration, the ornithologists in Lithuania have used radar observations.

In the last ten years ornithologists of the Institute of Zoology of the Academy of Sciences of the Kazakh S.S.R. have been engaged in an intensive study of bird migration and large-scale

trapping of birds for ringing. At the present time, Kazakhstan is second in importance after the Baltic area as a centre for studies of bird migration in the Soviet Union.

Of the other centres for the study of bird migration, one may mention the Oka State Nature Reserve in the vicinity of Moscow and the Astrakhan State Nature Reserve on the Volga delta. The former locality offers exceptional opportunities for observing the migration of passerines and geese; the latter is important as a moulting place of waterfowl coming from remote hinterlands.

Publications dealing with bird migration have become numerous in recent years. In addition to periodicals (such as "Communications" of the Baltic Commission, "Transactions" of the Rybachin Biological Station, editions of the Moscow Coordinating Council, etc.) and to the above-mentioned monograph by V. R. DOLNIK, one may mention the book by E. KUMARI entitled "Lindude ränne" (Bird Migration, 1975). The "Proceedings" of the International Conference on Bird

Migration held in Tallinn in October 1974 appeared at the end of 1976.

Selostus: Lintujen muuton tutkimuksesta Neuvostoliitossa

Neuvostoliiton Tiedeakatemian yhteydessä on vuodesta 1973 toiminut lintujen muuton tutkimuksen koordinoinnista huolehtiva neuvosto. Tämän kanssa yhteistyössä toimii yhdeksän aluekomiteaa. Baltian alueen komitea on perustettu v. 1955, ja sen tehtäviin kuuluu muuton, invaasiolintujen ja talvehtijoiden tutkimus, muuttofenologisten havaintojen keruun organisointi, rengastus, teoreettisten muuttoon liittyvien kysymysten tutkimus (esim. muuttofysiologia, lintujen suunnistus) sekä lintujen suojelu ja monenlainen kongressi-, kokous- ja julkaisutoiminta. Tärkein alan laitos Neuvostoliitossa on v. 1956 Rossittenin aseman tilalle perustettu Rybachin biologinen asema. Asemalla — rengastuksen lisäksi — tutkitaan mm. muuttofysiologiaa, pääkohteena peippo. Virossa muuton järjestelmällinen tutkimus alkoi v. 1953, kun Puhtun lintuasema perustettiin. Täällä on tutkittu varsinkin vesi- ja varpuslintujen muuttoa. Muuton tutkimus on vilkasta myös Latviassa, Liettuassa ja viimeisten kymmenen vuoden aikana myös Kazakhs-tanin SNT:ssä, joka on Baltian jälkeen Neuvostoliiton toiseksi tärkein alan tutkimuksen keskus. Uusimmasta julkaisutoiminnasta mainittakoon Rybachin aseman johtajan V. R. Dolnikin The Migratory State of Birds (1975) sekä E. Kumarin Lindude ränne (1975).