

„Nekem egy nagy megnyugvásom van, az, hogy a központból gyakorolt nyomással távol tudtuk tartani az idegen szellem benyomulását; hogy madártani irodalmunkat céltudatosan kiépítettük és így a magyar nemzeti jelleget, tudományos és gazdasági téren, reményem, minden időkre biztosítottuk.” \* – Amen! –

Sacramento, Kalifornia, 1993. október 5.

*Irodalmi hivatkozás:*

\**Kukuljevič J., (1906) Magyarország madárvédelmének története, Budapest 1906.*

## Hungarian ornithology 1893–1993\*

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We are reflecting upon the achievements of the Hungarian Institute of Ornithology during its 100 years of existence. Growing up in Hungary, I had visited this renowned institution regularly from 1928 when I was of nine. I served as its employee between the spring of 1942 and late 1945; though during most of the last 50 years of its existence I resided abroad, overseas, and my contacts with the institute were sparse. When I was asked to write this short essay I dug up the two pages I had written in 1943 in a Hungarian sports magazine about the then 50 years jubilee of the institute.

What did I say about it 50 years ago? I quote: „This world-wide known research establishment is quasi unique in our country since, despite of its rigorous scientific programme, it keeps the closest contacts with that part of the general public which finds true pleasure in delving in nature and contemplating its marvels...”

Just nine years before that jubilee, in 1934, at the eighth International Congress of Ornithology, Dr. Erwin Stresemann evaluated the institution in his presidential address as follows:

„Als Politiker wie als Forscher gleich hervorragende *Otto ... Herman* verstand es, die einmal zu vereintem Aufbau gesammelten Kräfte zusammenzuhalten und 1893 die Errichtung der Ungarischen Ornithologischen Zentrale durchzusetzen, jenes in seiner Art noch heute einzig darstehenden staatlichen ornithologischen Instituts, dessen Zeitschrift *Aquila* rasch zu größtem Ansehen gelangt ist.”

„*Otto Herman*, as eminent a researcher as politician, understood how to win volunteer workers for a community project and how to launch the Hungarian Ornithological Centre, this still unique state-sponsored ornithological institution whos periodical, the *Aquila* soon reached the highest esteem.”

We Hungarians, having grown up in the knowledge of our history, of our „Hungarian fate”, are all well aware that if, and whenever, and wherever, we achieved something pioneering and outstanding (be it a bloody revolution, the first underground metro as the one in Budapest, the *Rubik*-dice, the demolishing of the iron curtain, or even the founding of a state ornithological institute) – the world admires it as if it were a miracle, but any miracle lasts only three days, thereafter to sink into oblivion. Thus it does not surprise us, that when the same *Dr. Stresemann*

\**Remark: The paper was presented at the centenary festival of the Hungarian Institute of Ornithology held in Budapest on 1th of October, 1993.*

wrote an excellent history of ornithology in 1951 he mentions *Otto Herman* and *Jacob Schenk* once each, but none of our other ornithologists and their achievements.

Thus the evaluation of the activities of our centenary institution becomes my task: to tell not what the world valued of it, but the contributions it gave to the world.

Though the creation of the Ornithological Centre (or Institute) is entirely to the credit of *Otto Herman*, it is the result of an international phenomenon, or rather a trend, which *Herman* utilized for his goals. This phenomenon, the introduction of periodically repeated scientific gatherings, was only made possible during the last few decades of the 19th century owing to the building a traffic system of railroads and steamship lines all across the bulk of Europe. The first international congress of ornithology, of 1884, was organized by the German and Austrian scientists who surrounded *Rudolf von Habsburg*, the ornithologically interested and educated crown prince of Austria and Hungary. Thereafter the turn of Budapest to become the site of the next congress was nearly shattered by the untimely and tragic death of crown prince *Rudolf*. The „courting ornithologists”, who had looked more for political influence than scientific achievements, lost interest. Scandals hampered the working of the newly created Permanent International Ornithological Committee. The survival (and revamping) of this Committee, and the holding of a truly international congress in Budapest in 1891 was entirely the result of *Herman's* incessant work. He personally invited the most renowned and influential English and North American ornithologists to Budapest – these came and the congress became a glorious success. In Vienna the three themes of the first congress were bird protection (an important though not scientific item), poultry husbandry and poultry „science”, and last, the planning of a world-wide net of bird observatories (of which nothing materialized then or later). *Herman's* congress had summarizing lectures by the best in their fields of systematics, nomenclature, anatomy, palaeontology etc. Central to the programme was, though, the coordination of migration research. *Herman's* Hungarian field working group provided the best example. It (and *Herman* himself) convinced the Hungarian authorities that knowledge about the role of birds is vital for modern forestry and agriculture. Thus the bureau preparing for the congress was re-named in 1893 the *Hungarian Central Office of Ornithology*, today called *Hungarian Institute of Ornithology*. It immediately started to issue its annals, the *Aquila*, now also in its 100th year.

*Herman* was a broadly educated, universal scientist, also pioneering with his monographs of the arachnid and fish fauna of Hungary. He followed the rational, inductive scientific method: data collection, comparative grouping of the data, then causal evaluation. He steered his crew with an iron fist to work around the central theme: the phenology of migration, studied by a statistical method.

Phenology (short for phenomenology) describes the temporal circumstances of natural phenomena. Such observations had been initiated earlier in the USA (*J. A. Allen*) and in Northern Europe (*J. A. Palmén*, in Finland), but it was our *Herman* who introduced them to Central Europe. His crew of volunteers observed migratory dates of the commonest dozen or so species, but he extended the net of observers to include the whole field personnel of the Department of Agriculture and Forestry of the Hungary of the 1890-s (i. e., the whole Carpathian Basin). They had to report on the White Stork and the Barn Swallow, birds that everybody in Hungary knows and cherishes around (and above) the household.

There had been many efforts in Western Europe to start so-called bird observing stations (observatories) before the Hungarian undertaking but, as *Stresemann* noted in his historical treatise, their amassed data remained without evaluation; often the

stations faded into oblivion even without publishing their data. The databank of *Herman's* institute has been geographically and temporally organized, and compared with the meteorological conditions at the time of observed migration, as well as with the geographical, especially altitudinal, relations of the locality. As viewed today, here is an early attempt to find the ecological relations of the timing of migration.

Fourteen years after the Budapest Congress, and 12 years after the foundation of the Hungarian Central Office of Ornithology, *Otto Herman* had introduced to the 4th International Congress, convening in London, in 1905, an imposing report about their achievements, written in English. This book not only included the results of his working group, but it critically assessed the world literature on bird migration. Both parts of the report enjoyed international recognition, and vindicated the existence of an ornithological research station as a state founded agricultural and conservational research institute.

The „*Recensio Critica Automatica of the Doctrine of Bird-Migration*” published, among others, a world map showing, and evaluating all migratory highways found in the world literature between 1828 and 1902. Discussing the causation of bird migration he also amassed all literature data beginning with the ornithological „handbook” of emperor *Friedrich* the 1st written in the 1240-s, through *Linnaeus* works up to *Middendorff*, then further 1 to *Pallmén* and *Homeyer*, *Herman's* contemporaries.

According to the Hungarian ornithologists bird migration is not a mystical phenomenon, nor is it a riddle. First, one has to treat it with the methods of inductive science. No need to speculate, or to accept doubtful theories by great authorities. *Herman's* second thesis is that in the spirit of the above suggested tripartite treatment, bird migration should be studied, (I) as a process, (II) in its connection with meteorology, and (III) seeking the 'causal impulse'. Third, he states that „parallel to the oscillating movement of Migration goes the sexual impulse and its periodical development and retrogression, which, consequently, has an essential influence on Migration.” This thesis predates with some 20 years the hormonal-physiological discoveries in migration of *William Rowan* of Canada!

Theses (5) to (13) seem for us today self-evident, but they were pronounced here for the first time, based on series of observations as well as on the literature. Summarized, they state that the lower the altitude, and the more southerly the locality, the earlier the arrival and the later the departure; the opposite is the case regarding higher altitude and more northerly localities.

Further theses: (14) „The progress of migration is generally isothermal, and is in consequence independent of the power of flight of the migrating species.” (15) „The question 'migration route or movement in a broad front' is incorrectly formulated. Passing birds follow constant directions, therefore certain routes; in settling the breeding areas or breeding zone the result is expansion in the form of repletion.” (17) „The settling of the breeding regions goes on by tribes.” [*Herman's* tribes are what we call today local, or breeding populations.]

Several of these theses elaborated upon in the detailed papers of the first 10 volumes of *Aquila* by *Herman's* scientific crew. To give here some examples, *Gaston Gaal* scrutinized the arrival dates of *Hirundo rustica*. Ten years data show that the Swallow occupies its breeding area in the Carpathian Basin gradually, neither by migratory highways, nor in a general, broad front. It first settles the low-lying areas, what we call the Hungarian Plains; then it penetrates the valleys toward the arc of the Carpathian mountain chain. Meteorologist *Jacob Hegyfoky* found a relation between spring arrival and the local weather conditions; according to his statistical data 100 m difference in elevation delays the swallows on the average by 3 days, reflecting the

temperature differences caused by altitude. These and similar results (all of which were published in the early volumes of *Aquila*) laid the foundation of the high esteem this annal, and the institution behind it, enjoyed in the scientific world of the first few decades of our century.

In another field, the Institute delved in the practical details of bird protection and conservation so important in a predominantly agricultural country. While this work did not yield new scientific results, it put Hungary in line with the civilized West, where the birds are protected rather than shot, snared and eaten. Thus Hungary could start the 20th century with bird protection legislation, with adopting from the USA Arbor Day (we call it Day of Birds and Trees), and with detailed studies about the economic importance of its bird fauna. Several popular pamphlets appeared dealing with this subject. *Otto Herman* himself wrote a pearl to a small book, in popular language, aimed for the farming and forest-dwelling population, about the 100 most important and common birds of the country. This book found several editions in the Hungarian language, but also has been published in German and English translations.

The main scientific task, though, remained migration research. *Jacob Schenk* soon emerged as the most important and steadfast co-worker of the institute in this field. When visiting the German Bird Observatory of Rosssitten and learning there the newly (1903) introduced method of bird banding the Hungarians followed suit. Many ornithologists, and even more bird lovers received the new method with scepticism, even with hostility, thinking that the rings harm the birds. The first Hungarian results became world sensational news: a White Stork (*Ciconia ciconia*) ringed in Hungary in July 1908 has been reported back in January 1909 from Natal, South Africa! Another of the July 1908 has bandings was found in December 1909 in Basutoland – proving that it journeyed, with the band on its leg – the second time to South Africa. Within a couple of years more recoveries of Hungarian and German storks outlined the migration route of this bird from the eastern half of Europe through the Middle East to the savannas of southern Africa and back. From the 1910's on until the 2s and 3s Hungary (with *Dr. Schenk*) remained in the front of banding research. The results can be found in, beside the pages of *Aquila*, the volumes of the International Ornithological and Zoological Congress Proceedings, thus I do not need to repeat them here, except for one detail from my own memories.

In the 1930s, during the months of March, every Hungarian nature lover, naturalist, and hunter eagerly watched the evening news from Radio Budapest. Then, one night, the newscaster read the long awaited message: „Attention! The woodcocks are on the way! Next weekend they will arrive to our country!” And so they did. *Dr. Schenk's* research showed that when the first spring cyclone developed, and centered on Iceland in the North Atlantic, the movement of the air masses caused a warming trend in northern Africa and in the Mediterranean area in general, and this stimulated the wintering Woodcocks (*Scolopax rusticola*) then to start their spring trek, to and through the Hungarian countryside. In a couple of days their 'pietz' ans 'quorr' flight-song could be heard all over the budding willows and poplars at the clearings and edges of woods, mixed with the melodious fluting of the blackbirds.

The Great War of 1914–18 caused a great set-back in the development of research and international relations of the Institute. Hungary lost over 2/3rd of its territory. The war, coupled with heavy reparations, caused economic misery, a situation which the Institute barely survived. Its well-established international reputation helped it to grants from better situated countries such as the Netherlands and the USA. Thus

continuing of banding, printing of the annals, and even field protection of some important marsh areas was possible, though on a smaller scale than before. We can read the details in *Dr. Schenk's* (the last director before the end of World War II.) account in the 50th volume of *Aquila*, in 1943.

During the period 1920–1940 the ornithological work in Hungary was extended to such field as palaeontology (*K. Lambrecht*), histology (*E. Greschik*), and systematics (*A. Keve-Kleiner*). But we find the main results of Hungarian ornithologists in extension of the economic ornithological work: improving protection by winter feeding and by providing nesting opportunities (breeding boxes, suitable hedgerows, and the like) to garden and orchard birds, shelterbelts for the farmland breeders, protected wetlands for marsh and pond dwellers, food studies based on stomach analyses etc. In these fields the efforts were not on international publications but in the education of the public. Yet, those few peaceful decades allowed the world to learn about them by personal contacts via the very numerous foreign visitors that knocked on our doors.

1945 was a catastrophic year in the history of Hungarian ornithology. Beside loss of personnel, the Institute, with all its valuable collections that had been amassed over half a century, burnt down to the ground during the siege of Budapest. The Library had been evacuated on orders, never to be seen again. Allow me here some reminiscing because it indeed reflects on our international relations! The new library of the Institute started with one volume of the old one: in early 1946, when postal service had been reestablished between the countries of Europe, the mail brought a small parcel from Germany, a weatherworn book in a simple brown-bag with a string around it. Inside a note: „I found this book during the retreat late 1944 in a bomb-crater in Austria where we were hiding. I picked it up and threw it into my backpack because it was a book, though in an undecipherable language. Now our town librarian found out, from its seal, that it belongs to the Hungarian Ornithological Center, thus I am mailing it back to where it belongs.” – *Habent sua fata libelli ...* –

Several decades since World War II were spent by re-building from the ashes and accomodating the new directions dictated by the regime. International contacts were established eastward rather than westward as before. At the first postwar International Ornithological Congress, in 1950 in Uppsala, Sweden, I was (in Swedish service) the only Hungarian ornithologist present. Yet, there was a success story in Uppsala, that of the color slide show of *S. Homoki Nagy*, about bird life in Central Hungary. *Julian Huxley* who conducted that session commented that *Homoki Nagy's* slides were the best and most advanced bird pictures of the world.

This situation has gradually changed and, especially from the 1980s, young Hungarian ornithologists again took the places of their grandfathers in international research. They report about research results in community ecology, breeding behaviour, general ethology and other topical subjects not only in *Aquila* and the new *Ornis Hungarica* but in numerous other, international, research journals. Their evaluation has to wait for the 150 years jubilee.

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