Wader studies in the Soviet Union

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Tomkovich, P.S. 1998. Wader studies in the Soviet Union. *International Wader Studies* 10: 9-12.

A brief description is given of the development of wader studies in the Russian Empire, in the USSR, and currently in the CIS. Special wader publications have appeared from the early 20th century, but these birds only became a subject of special studies since the late 1950s. Growth of interest in waders in the 1960s culminated in All-Union wader conferences organised on an irregular basis since 1973. In October 1987 the Working Group on Waders was established, which keeps researchers informed about wader studies and relevant conservation activities not only in CIS but also throughout the world. However, almost no joint projects are currently running successfully due to low activity of the Group members and their only partial interest in waders.

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Томкович, П. С. 1998. Исследования по куликам в Советском Союзе. *International Wader Studies* 10: 9-12.

Приведено краткое описание развития исследований по куликам в Российской Империи, в СССР, и в настоящее время в СНГ. Специальные работы по куликам издаются с начала текущего столетия, но эти птицы стали предметом специальных исследований только с конца 1950-х годов. Рост интереса к куликам в 1960-х годах достиг своей высшей точки во Всесоюзных совещаниях по изучению куликов, которые организируются нерегулярно с 1973 года. В октябре 1987 года была учреждена Рабочая группа по куликам (РГК), которая информирует исследователей о новостях в изучении куликов и деятельности по их охране не только в странах СНГ, но и во всем мире. Однако, в настоящее время почти не проводятся удачные совместные работы из-за низкого уровня активности членов РГК и их только частично заинтересованности в изучении куликов.

Observations on waders in Russia, as on birds in general, date from the second half of the 18th century. In the course of numerous expeditions an understanding of their numbers and distribution across the boundless expanses of the land began to be obtained. This information was collated for the first time at the start of the present century in the incomplete manuscript *Waders of the Russian Empire* by S.A. Buturlin (1902, 1905). He was the first Russian ornithologist who included waders amongst his many interests. This period marked the start of scientific study on waders in Russia. Besides Buturlin's wide-ranging work, other papers appeared on the Asiatic Dowitcher *Limnodromus semipalmatus* and on the nesting of the Slender-billed Curlew *Numenius tenurirostris* and other rare waders of western Siberia. However, after the Socialist Revolution of 1917, the difficult economic situation again resulted in the study of waders taking place only incidentally during various expeditions to remote areas. Nevertheless, during the 1920s and 1930s the first facts were obtained about the nesting sites and lifestyle of the Great Knot *Calidris tenuirostris* and the Little Curlew *Numenius minutus*, and the first nests were found of the Far Eastern Curlew *Numenius madagascariensis*. In addition, Buturlin and L.A. Portenko made great progress in studies of the geographical variation of waders in the USSR, almost completing the description of new species and sub-species of Palearctic forms.

A new wave of ornithological research began soon after the Second World War, which was associated with the appearance of the six-volume *Birds of the Soviet Union* (Dementiev *et al.* 1951-54) and with plans by the Academy of Sciences of the USSR for the preparation and publication of monographs on the fauna of little-studied regions. Especially worthy of note was the volume on waders by O.B. Kistyakivski (1957) in the series *Faunas of the Ukraine* and the section on waders by I.A. Dolgushin (1962) in the five-volume *Birds of Kazakhstan*. In the post-war years up to the middle of the 1960s, the first nests were found in the USSR of the Grey-tailed Tattler *Heteroscelus brevipes*, Long-billed Dowitcher *Limnodromus scolopaceus*, and Pintail Snipe *Gallinago stenura*, as well as of Broad-billed *Limicola falcinellus*, Sharp-tailed *Calidris acuminata* and Bairds *Calidris bairdii* Sandpipers. Articles describing the distribution and way of life of Baird's, Curlew *C. ferruginea*, Pectoral *C. melanotus* and Spoon-billed *Eurynorhynchus pygmeus* Sandpipers and of Red-necked Stint *C. ruficollis* appeared but, as before, these tended to contain only generalizations of material gathered incidentally in the course of broader faunal research. However, it should be noted that from early times Russian faunal studies were more than mere compilations of lists and an elucidation of the status of species, containing instead a treasure-house of all sorts of facts about the life of birds.

In the 1950s, works on waders began to appear that were based on more intensive study. Especially worthy of note was an article by A.M. Cheltsov Bebutov (1950), who discovered that arctic waders encountered during summer in Kazakhstan are chiefly early migrants from the tundra and not wandering immature birds, or ones breeding on the steppes, as was formerly thought. However, it was research into morphology that predominated at this time. Important monographs by E.V. Kozlova (1961, 1962) and K.A. Yudin (1965) in the series *Fauna of the USSR* comprised not only the fullest review yet of information about waders in the USSR, but also a comprehensive morphological analysis of genealogical history (phylogeny) within the group.

By the end of the 1960s, a growth of interest in waders among Soviet ornithologists resulted in more frequent and detailed publications, particularly ones based on ringing. An important work of that time is the monograph by V.V. Biancki, *Waders, gulls and auks of the Kandalaksha Gulf* (1967). Thanks to both Soviet and foreign wader research, the old idea of a dull uniformity in the way of life and behaviour of waders gradually changed to almost the opposite opinion. It became clear that waders possess a great variety of breeding systems, a diversity of behaviour involving considerable use of display plumages, and subtle ecological differences between species. All this, along with the great variety of species and the abundance of many waders, combined to make them a model group for studying a series of general biological questions. Thus, the beginning of the 1970s saw an increasing focus on waders throughout the whole world. In the USSR, a new stage in research on these birds was achieved in 1973, when the first All-Union Conference on wader biology was organised by V.E. Flint. This conference was successful both in showing that the Soviet study on waders was then "keeping pace" with elsewhere and also in establishing the basis of a tradition for such conferences of countrywide importance.

Despite no longer having a predominant role, distributional research on Soviet waders continued to be important in the 1970s in view of the vast size of the country. Discoveries in this period included the first nests of the Japanese Snipe *Gallinago hardwickii*, Solitary Snipe *Gallinago solitaria*, Buff-breasted Sandpiper *Tryngites subruficollis* and Spotted Greenshank *Tringa guttifer*. Unfixed-transect census studies of birds, often in remote areas, also became popular, but unfortunately information gathered on breeding waders was usually incidental and rarely reflected their true density and distribution. Breeding biology studies, notably of rare species and individually marked populations, attracted great attention, and A.A. Kistchinski (1976, 1978) produced important papers on the role of waders in tundra ecosystems. Studies on wader migration also achieved prominence at this time. The first general review of results from wader ringing in the USSR had been made by M.I. Lebedeva (1957, 1965, 1974), as well as more detailed analyses of the migration in Eastern Europe of species such as the Lapwing *Vanellus vanellus*, Oystercatcher *Haematopus ostralegus*, Turnstone *Arenaria interpres* and Great Snipe *Gallinago media*. In 1973-74, headquarters and resources were specially allocated and a Co-ordinating Committee set up for dealing with problems of bird migration and orientation in the country.

The 1970s culminated in the second All-Union Conference on Waders in 1979, and a third such conference was held in October 1987. During the intervening period, first discoveries of nesting in the USSR of Oriental Pratincole *Glareola maldivarum* and Semipalmated Sandpiper *Calidris pusilla* were made and better information obtained on the distribution and biology of several under-studied species, including Ibisbill *Ibidorhyncha struthersii*, Long-billed Plover *Charadrius placidus* and Buff-breasted, Bairds and Curlew Sandpipers. Of particular note was publication of the detailed monograph by A.Ya. Kondratyev on *The biology of waders in the tundra of north-east Asia* (1982).

Migration research also underwent further development during this time. Concentrated ringing by ornithologists at the University of Krasnoyarsk produced the first interesting results concerning links between the waders of south-central Siberia and Australia. Similarly, ornithologists at the Zoological Institute of Kazakhstan began to draw conclusions from the detailed migration studies in that republic; so far, information has been published for the Red-necked Phalarope *Phalaropus lobatus*, Broad-billed Sandpiper, Temminck's Stint *Calidris temminckii* and prepared for Little Stint *C. minuta*. In addition, the Ringing Centre of the USSR has published a summary of COMECON wader ringing data (Viksne & Mikhelson 1985).

Interesting results of general biological importance were obtained in several areas. For instance, there were interesting comparative behavioural studies published, such as those of the mating and territorial displays in Little Ringed Plover *Charadrius dubius* and Long-billed Ringed Plover *C. placidus* (Panov 1973), and classification of distraction behaviour in arctic waders (Flint 1973, 1977). Research by E.I. Khlebosolov (1985, 1986) in the lower reaches of the Kolyma River has demonstrated the importance of competitive interactions not only amongst adult arctic waders but also amongst downy chicks in their first days of life. Downy chicks, even of closely related species, differ in various ecological niches: they tend to use different micro-habitats, different food and, on occasion, different methods of hunting. From this it can be established that the early post-hatching period is one of the weak links in the life of tundra birds, being an important determinant of divergence among related wader species. Khlebosolov further suggests that the territorial behaviour of tundra waders and species composition in an area are determined through the

availability of food for downy chicks and the diversity of micro-habitats.

Despite such achievements, participants at the third All-Union Wader Conference agreed that the preceding ten years had seen a decline in the scientific quality of Soviet research on waders relative to prevailing world standards. In addition, in the USSR little examination had been made of such topical contemporary problems as the identification and assessment of sites with large concentrations of waders, which are necessary for their conservation, the protection of rare species, and the quantitative appraisal of human transformation of wader habitats. In an attempt to rectify this situation, the third Wader Conference saw the creation of a Wader Study Group (RGK) under the auspices of the All-Union Ornithologists Society of the USSR.

Since then, the work of organizing the RGK has been energetically pursued: organizers have been selected to head research in different regions of the country and to study specific problems and species; a co-ordinated programme of colour-ringing waders has been planned; a decision made to hold wader conferences more regularly; and the first edition of an RGK *Information Bulletin* prepared.

There was a belief that from the moment of the creation of the RGK, a new historic stage in the study of waders in the USSR (currently Russia and the associated newly independent states) had been reached. The RGK was necessary to bring together professional and amateur ornithologists interested in the study and protection of waders. RGK helps increase contact between wader workers, facilitates the exchange of information and encourages international contacts. The RGK helps other interested organisations obtain data on the distribution, numbers and other data and information on waders and in disseminating ideas on wader conservation. An important role for RGK is to initiate and co-ordinate those wader studies, which can only be undertaken co-operatively using the efforts of many scattered observers.

Membership was free before 1993 and as a result 180 members of the RGK were recorded at that time. This is a large number if one notes the few amateurs in the country and the small total number of professional ornithologists. But it is still too small considering the vast extent of the former USSR: there were *c.* 22,000 km^2 of the USSR per professional ornithologist. Russian ornithologists usually are generalists and do not specialise in particular scientific fields: there are less than 25 RGK members who really pay special attention to waders in their studies. It was thus not a surprise that after a membership fee was introduced the number of members of the RGK dropped by half. RGK members are not distributed uniformly through the CIS: most are concentrated in the Ukraine and central part of the European Russia. There are only occasional members from Baltic Republics and no members at the moment in Moldova, nor in the Transcaucasian and Middle Asian states.

The RGK produces an annual Bulletin *Information Materials of the Working Group on Waders* in order to exchange information within the CIS. This gives worldwide news and information about activities related to waders in different regions in the CIS, as well as annual ringing totals, reviews of some important publications, outstanding wader records and other data. An annual gathering and publication of brief information about breeding success of waders in Russian tundras together with data on the status of lemming and predator populations and arctic weather conditions has already became a tradition, and these data have received worldwide interest after their publication in the *International Wader Study Group Bulletin* (and are reprinted in Section 4 of this volume).

In the absence of a Rarities Committee or something similar in the USSR and subsequently in the majority of states of the CIS, the Executive Committee of the RGK decided to function in this way. It considers unusual wader records and makes decisions, which are published in the *Bulletin.* The Committee also reconsiders doubtful former records that are scattered in the faunistic literature. An overview of these are compiled for the attention of a broader ornithological audience (Tomkovich in press).

It has become clear that RGK members do not participate actively in different projects introduced within the country or at an international level. A small response was received for the WSG's Ruffnet and especially Kentish Plover projects and the only successful small internal project to date is a *Haematopus* project organised by V.S. Sarychev. Due to this project, data on the distribution and numbers of Oystercatchers in central European Russia were received, which demonstrated that the population is endangered, and as a result it is now confirmed for the next edition of the Red Data Book of Russia.

Special attention was paid to the co-ordination of wader colour-marking in the USSR and then in CIS, but the absence of good plastics and a low responsibility of researchers were causes of frequently occurring overlaps between different colour-marking schemes. However, the situation has changed recently (Tomkovich 1996): Darvic is available now thanks to sponsorship from the Schleswig-Holstein Wattenmeer National Park, and involvement with the international WSG's colour-mark co-ordination scheme has now become possible for RGK members.

The establishment of the RGK has facilitated the organisation of conferences in the period of the USSR, including the fourth wader conference in Donetsk, Ukraine in 1990 and the international Odessa WSG Conference reported in this volume. However, the political and economic situation changed sharply in the early 1990s, and now it is

difficult to predict when the next meeting of wader people will be possible in CIS. Moreover the proceedings of the Donetsk conference are not published yet. Nevertheless, possibilities for ornithologists from the CIS to collaborate with foreign colleagues have increased recently and members joining expeditions to study waders in CIS and throughout the world are now becoming common events.

Since 1994 the RGK has organized a special expedition to south-eastern Taimyr, north-central Siberia, with financial support of the Schleswig-Holstein Wattenmeer National Park, Taimyr Nature Reserve and International Arctic Expedition of the Russian Academy of Sciences. The aim of this trip was to compare different census methods for breeding tundra waders and for monitoring purposes (Soloviev *et al.* 1996). Recently the RGK have received a grant in order to assist in the collection of data from CIS ornithologists and to publish two volumes as a special part of the international WSG project *Breeding Waders in Europe - 2000.* This will aid estimation of wader breeding populations in the largest part of Eastern Europe. Through working for a common aim, we hope this project will help to co-ordinate the work of different ornithologists and thus increase the RGK membership.

So the era of the separate development of science in a closed society is finished, and there are hopes that wader enthusiasts from the former USSR and the West will enrich each other with their skills and knowledge. The RGK is planning its important role in this process. It is left to express hopes that in contrast to the nationalistic tendencies of the states of the former USSR, ornithologists will continue to collaborate on studies and the conservation of waders and other birds, which know no boundaries. The first development of RGK activities has shown what is possible by such joint working.

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