

Foreword to the English Edition

Dr. Vladimir Georgievich Heptner, the senior editor and author of *Mammals of the Soviet Union* and Professor at Moscow State University, died in Moscow on 5 July 1975, in his 75th year. Professor Heptner was born in Moscow in 1901. From the day he entered Moscow University as a graduate student in 1919, Professor Heptner's scientific and academic career was indissolubly linked with Moscow University's Faculty of Biology, and with its Zoological Museum. In 1929, he became curator of mammals at the Museum and assistant professor; in 1934, he attained the rank of full professor.

Heptner combined his intensive scientific work with continuous academic activity. Many Soviet biologists, zoogeographers, morphologists, ecologists, and systematists, as well as mammalogists count themselves among his students, and his high esteem among his Soviet colleagues is manifested by their naming about 20 taxa of animals of different classes in his honor. Professor Heptner's scientific and pedagogic activities made him a leader of Soviet zoology and one of the world's most renowned mammalogists. He was one of the oldest members of the Moscow Society of Naturalists and of the Geographical Society of the USSR, and an honorary member of the All-Russian Society of Wildlife Conservation. In 1974, when the Theriological Society of the USSR was founded, he was made its vice-president. His scientific contributions were recognized in many foreign countries: he was an honorary member of the American Society of Mammalogists, the Gesellschaft Naturforscher der Freunde zu Berlin, the Deutschen Gesellschaft für Säugetierkunde, and the Zoological Society of Czechoslovakia. He was also a member of the European Society of Mammal Protection, and of the International Union for Conservation of Nature and Natural Resources.

It is regrettable that during this long and productive career only a small number of non-Soviet mammalogists were fortunate enough to become personally acquainted with his keen mind and breadth of interests. Heptner is best known to American mammalogists for his publications in systematics and zoogeography. He dedicated many years of his life to the problems of zoogeography of the USSR, and of the Holarctic as a whole. In particular, his numerous studies of Middle and Central Asia and Asia Minor, such as his detailed investigations of Old World deserts, and his insights into the role of environment in adaptation and differentiation of desert animals, are of great

significance. His contribution to systematics of various mammalian groups is also large. One may note especially his work on systematics of Gerbillinae, a group in which he was especially interested. In the course of his systematic activity, he described about 70 new forms (subspecies, species, and subgenera) of mammals. Evolutionary problems were of the greatest interest to Professor Heptner, especially those of microevolution and subspeciation. He was active not only as a scientist, but a popularizer in the USSR of the polytypic species concept. In this connection, he initiated the translation into Russian of such books as Ernst Mayr's *Systematics and the Origin of Species* (in 1947); *Animal Species and Evolution* (in 1968); *Principles of Systematic Zoology* (in 1971); and *Populations, Species and Evolution* (in 1974); Mayr, Linsely and Usinger's *Methods and Principles of Systematic Zoology* (in 1956); and A. Cain's *Animal Species and their Evolution* (in 1958), all published under his editorship. Professor Heptner also served on editorial boards of various periodicals, including *Zoologicheskii Zhurnal*, *Doklady Vysshei Shkoly*, *Okhota i okhotnichie khozyaistvo*, *Lynx*, *Das Pelzgewerbe*, and *Säugetierkundliche Mitteilungen*.

An excellent field naturalist, Heptner took part in many expeditions to all parts of the Soviet Union. Under his leadership field parties investigated such diverse areas as the Soviet Arctic, Middle Russia, the northern Caucasus Mountains, Transcaucasia, Turkmeniya, Uzbekistan, the Pamir, the Altai Mountains, and the Soviet Far East. His familiarity with the natural wealth of the USSR, and his appreciation of the problems attendant upon utilization of the country's resources, led him to assume a pioneering role in wildlife conservation. At the same time, his broad approach permitted him to work effectively in "applied" fields such as medical zoology, pest control, fur harvest, and commercial hunting.

Professor Heptner was the author or co-author of about 300 published works, among them such monographs as *Mammals of the Middle Kopet Dag and Adjacent Plains* (1929), *General Zoogeography* (1963), *Rodents of Middle Asia* (1936), *Vertebrate Animals of Badkhyz* (1956), and *Harmful and Useful Mammals of the Protective Forest Zones* (1950), the latter having been translated into German.

His colleagues, both Soviet and foreign, feel his loss deeply—he was a man of great culture, integrity, fortitude, and generosity, always ready to help anyone with his words and deeds. (Modified from obituary in *J. Mammal.*, 57 (2): 416–417, by Rossolimo and Hoffmann.)

I first met Professor Heptner in May, 1963, two years after the publication of the first volume of what he regarded as his major life

work, *Mammals of the Soviet Union*. He considered it to be the successor, and supplement, to S.I. Ognev's *Mammals of the USSR and Adjacent Countries*, a work published in seven volumes between 1928 and 1950. Heptner commenced his series with the ungulates, since Ognev had not lived to complete his task, and this was the major omission. The present volume is thus an invaluable extension of the coverage of Ognev's works. Heptner expressed great concern to me in 1963 that, while Ognev was now being translated into English (the first three volumes had just appeared in 1962, up to thirty-five years after their original publication), they were in many respects out of date. We discussed the desirability of fostering an English edition of his new series, and he expressed the hope that this might be done promptly. Unfortunately, Professor Heptner died in early summer of 1975, and so did not live to see either an English translation of his monograph, or even its completion in Russian; at the time of his death, two parts of volume two had appeared, and a third was posthumously published in 1976. Since then, responsibility for the series has been assumed by Acad. Vladimir E. Sokolov, Director of the Institute of Evolutionary Animal Morphology and Ecology of the Academy of Sciences of the USSR, who assures me that additional volumes will appear in due course.

The English translation project was initiated at my urging in late 1975 as a contribution to joint U.S.-U.S.S.R. studies on the evolution of Holarctic mammals sponsored by the Environmental Agreement between the two countries, and their Academies of Science. The Smithsonian Institution Libraries in cooperation with the National Science Foundation sponsored the translation of this as well as of hundreds of other scientific studies. The Smithsonian Libraries program, funded with Special Foreign Currency under the provisions of Public Law 480, represents an investment in the dissemination of knowledge to which the Smithsonian Institution is dedicated. The translation of volume one was ably completed by P.M. Rao of Amerind Publishing Co., New Delhi, India, under the general editorship of Dr. V.S. Kothekar. I subsequently read the translation in manuscript in order to check for scientific accuracy, and transliteration of proper names.

Geographic names are generally transliterated directly, but a few exceptions were permitted (*e.g.* Moscow instead of Moskva, translation rather than transliteration of certain modifiers of place names, such as Northern, rather than Severnaya, Dvina). Soviet administrative units are numerous, and the following equivalents were employed in translation: *Krai*, territory; *oblast'*, district; *raion*, region; *guberniya* (archaic), province. Also, in the original Russian

text, rivers, mountain ranges, and cities are often not explicitly identified, the Soviet reader being presumed sufficiently familiar with the geography of the country to be able to understand from the context of the sentence what sort of place is referred to. Complicating the matter is the lack of articles as parts of speech in Russian. To assist the English reader, I have adopted the following conventions: if a river is referred to, an article precedes it; if a mountain range is referred to, it is translated as a plural; if a city is referred to, it is singular, and lacks the article. Examples are: the Ural (river); the Urals (mountains); Ural'sk (city). Geographic place names are also inflected in Russian, and these have been simplified by omitting transliteration of the inflected ending. For example, the Russian phrase *v Yaroslavskoi i Kostromskoi oblastiakh* is translated "in the Yaroslavl and Kostroma districts." In cases where the nominative form of the place name has an -sk ending this is, however, transliterated (*e.g.*, Omsk); when a Russian "soft sign" is employed in a place name, this is transliterated as an apostrophe (*e.g.*, Khar'kov). Because of the large number of place names in this volume, it was not possible to verify all of them, and some inconsistencies are likely to occur. I would appreciate it if readers would bring any errors they may notice to my attention.

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