

This issue of the *Geography Environment Sustainability* journal contains selected papers presented at two international scientific conferences held in 2010.

The first conference “Ecological Consequences of Biospheric Processes in the Ecotone Zone of Southern Siberia and Central Asia” took place on September 6–8, 2010, in Ulaanbaatar, Mongolia. This conference was devoted to the 40-year anniversary of the Joint Russian-Mongolian Complex Biological Expedition of the Russian Academy of Sciences and the Mongolian Academy of Sciences. The conference discussed ecological and social problems associated with environmental pollution and desertification, causes and consequences of centennial dynamics of climatic conditions, ecological risks in anthropogenic systems, the current state of protected areas network, biodiversity, and problems of aquatic and wetland ecosystems of Lake Baikal.

The second conference “The Caspian region: Environmental Consequences of the Climate Change” took place on October 14–16, 2010, at M.V. Lomonosov Moscow State University, Moscow, Russia. The main goal of this conference was to discuss ecosystem feedbacks to climate change obtained by the international scientific community during its 20-year cooperative research efforts in the Caspian region. The conference addressed a wide range of multidisciplinary problems. Experts from various scientific fields – climatology, hydrology, oceanography, marine geology, geomorphology, cartography, palaeogeography, and geochemistry, participated in the conference and addressed fundamental and practical questions related to sustainable development of the Caspian region.

The Editors believe that providing information to the public on these two key Eurasian regions would strengthen international cooperation in environmental research.

A 100-YEAR ANNIVERSARY OF THE RUSSIAN GEOGRAPHICAL SOCIETY EXPEDITION TO KAMCHATKA (1908–1910)

For three centuries, the main task of geography in Russia was gathering information about the geographical features of the country. This was the driving force for the policy and activities of Peter the Great. It is not surprising that the first Russian geographers, Y.V. Bruce, I.K. Kirilov, and V.N. Tatishchev, were public figures, and the first Russian geographical expedition was organized by Peter himself.

The first national geographical entities appeared early in the XIX century: the Paris

Geographical Society in 1821, Berlin in 1828, the Royal Geographical Society in London in 1830, and Mexico in 1833. In 1843, a circle of statisticians and explorers, under the leadership of an outstanding statistician and ethnographer P.I. Keppen, began to gather regularly in St. Petersburg to discuss issues relating to statistical and geographical surveying of the territory of Russia. Soon, the famous naturalist and explorer K.M. Baer (his name is reflected in the names of the Caspian lowland landscape features, i.e., Baer mounds) and Admiral F.P. Litke (a researcher



Fig. 1. Members – founders of the Russian Geographical Society. From left to right and from top to bottom: astronomer Vasily Yakovlevich Struve (1793–1864), Admiral Ivan Fedorovich Krusenstern (1770–1846), Admiral Ferdinand Petrovich Wrangel (1795–1870), Academician Karl Maksimovich Baer (1792–1876), geologist Gregory Petrovich Gel'mersen (1803–1885), Academician Petr Ivanovich Koppén (1793–1864), Admiral Petr Ivanovich Rikord (1797–1855).



Fig. 2. Members – founders of the Russian Geographical Society. From left to right and from top to bottom: writer and musicologist Vladimir Fedorovich Odoevsky (1803–1869), statesman Alex Iraklievich Levshin (1799–1879), Academician Konstantin Ivanovich Arseniev (1789–1865), writer and ethnographer Vladimir Ivanovich Dahl (1801–1872), explorer Platon Alexandrovich Chikhachev (1812–1892), surveyor Mikhail Pavlovich Vronchenko (1801–1852), General Field Marshal Fyodor Fedorovich Berg (1793–1874).

and Head of the 1826–1829 Novaya Zemlya and around-the-world expeditions) joined the circle. These meetings were the predecessors of the Russian Geographical Society (RGS). In the spring of 1845, Litke developed a draft charter of the RGS which proved to be so successful that it lasted more than a century – until 1948.

Among the founders of the RGS there were tireless explorers, courageous sailors, famous writers, and public figures (Figs. 1 and 2). A memorandum to his Majesty was drawn up. A portfolio of documents was assembled and the case was reported to the Emperor Nicholas I by the Minister on June second, 1845. This was accomplished with active participation of the famous V.I. Dahl, who served as the Officer for Special Assignments for the Interior Minister. The Emperor looked through all the submitted papers, dropped the word “statistics” from the title and

forwarded the “case” to the Cabinet, where it was approved. Thereafter, on August 6, 1845, the Emperor announced the order “So be it”.

The first meeting of the RGS founders was held on October 1, 1845, where 51 people were elected. Those were the first active members of the RGS. Within eighteen days, of the RGS members held their first general meeting in the conference hall of the Imperial Academy of Sciences and Arts, where the RGS Council was elected. Article 12 of the 1849 RGS Charter recorded that “if a member of the imperial family honors the Society by taking on the title of “Chairman” (in fact, this turned out to be the case), the Society shall elect the Vice-Chairman from its active members. Grand Duke Konstantin Nikolaevich, the second son of Nicholas I, whose tutor was F.P. Litke (Fig. 3), agreed to be Chairman of the Society. The prince was among the most educated people of the mid-century and took an active part in



Fig. 3. Grand Duke Constantine – the first Chairman of the Russian Geographical Society.



Петр Петрович Семенов Тянь-Шанский
1827—1914

Fig. 4. Chairman of the Russian Geographical Society, Petr Petrovich Semenov-Tian-Shansky.

peasant reform. After his death, Grand Duke Nikolai Mikhailovich became Chairman of the Society until 1917".

The *de facto* leaders of the RGS were its Vice-Presidents: F.P. Litke (1845–1850 and 1857–1873) and P.P. Semenov (who subsequently added "Tian-Shansky" to his name) (1850–1857 and 1873–1914) (Fig. 4). The Society's branches expanded quickly throughout Russia. In 1851, the first two regional divisions – Caucasian (in Tiflis) and Siberian (in Irkutsk) were opened. Then, the Orenburg, Northwest (in Vilna), Southwest (in Kiev), West Siberia (in Omsk), Amur (in Khabarovsk), and Turkestan (in Tashkent) divisions were established. Eventually, a division of the RGS was created in Kamchatka.

The construction of the Society's own headquarters building at No. 10 Grivtsov (Demidov) Lane, in 1908 was the crowning event of the years when P.P. Semenov-Tian-Shansky served as Vice-Chairman of the Society. From then until the present time, the building has housed the management and secretariat of the Society, a wonderful library and archives (Fig. 5). When P.P. Semenov-Tian-Shansky died in 1914, the position was passed on to Y.M. Shokal'sky, who remained in the position after the overturn of the government in 1917 to 1931 (when he died). Then, N.I. Vavilov, who organized an incredibly fruitful expedition to the mountains of Central Asia and other continents to study the ancient cradles of agriculture, assumed the position until 1940.

The subsequent Presidents of the Geographical Society were Academicians ichthyologist and physical geographer L.S. Berg (1940–1952); creator of the theory of natural focal disease biology and biogeography E.N. Pavlovsky (1952–1964); glaciologist and physical geographer S.V. Kalesnik (1964–1978); and oceanographer and polar explorer A.F. Treshnikov (1978–1991). Later, the Society was headed by the professors of St. Petersburg University S.B. Lavrov and Y.P. Seliverstov; in 2002–2009 the Society was headed by Admiral A.M. Komaritsin. In December 2009 the Minister for Civil Defense,



Fig. 5. The building of the Russian Geographical Society at Demidov Lane.

Emergencies, and Disaster Management, Mr. Sergei Shoigu, became President of the Russian Geographical Society. Since 1945, the Chairman of the Society became known as the President. In rare cases, the Society had Honorary Presidents: Academicians Yu.M. Shokal'sky, V.L. Komarov, and V.A. Hoops.

From the beginning, the Russian Geographical Society was closely connected with the Academy of Sciences. F.P. Litke said, "The Academy was unable to do all for geography – more should be done – and this more is the task of the Russian Geographical Society". He further emphasized, "The Geographic Society, absolutely independent, is like the Academy extension with a special purpose". In 1938,

these bonds were officially recognized. Now, there are nearly thirty scientific societies in the Russian Federation with RGS assuming first place based on the number of members.

The unique image of the Geographical Society is largely due to its expeditionary activities. The names of the RGS members, N.A. Severtsov, I.V. Mushketov, P.A. Kropotkin, I.D. Cherskiy, N.M. Przewalski, G.N. Potanin, M.V. Pevtsov, G.E. Grum-Grzhimailo, V.A. Obruchev, P.K. Kozlov, N.N. Mikluho-Maclay, A.I. Voeikov, Y.M. Shokal'skii and many others, have entered into the world treasury of names of explorers and researchers. The RGS field expeditions were financially supported by the state, including funds

from the Academy of Sciences. There may, perhaps, be only one expedition – in 1908 to Kamchatka – that was organized using private funds, specifically, F.P. Ryabushinsky's.

In 1908, the famous philanthropist, a member of a distinguished family of entrepreneurs, Fyodor Pavlovich Riabushinsky, with the assistance of the Geographical Society organized the Kamchatka expedition, which was to explore and examine the flora and fauna of the Kamchatka peninsula, mainly in the area of volcanoes. The RGS Kamchatka Complex Expedition of 1908–1910 received the name "Ryabushinsky's Expedition" (Fig. 6). For a long time, the RGS had intended to explore Kamchatka. At the very beginning of the RGS's existence, in 1850–1854, F.P. Litke proposed such a project; in 1877, the Polish naturalist B.I. Dybovsky attempted it as well; and in 1903, V.L. Komarov suggested a similar expedition. These projects, however, were hampered by the lack of sufficient funds.

In 1906, having taken a course in geography, the very young F.P. Riabushinsky, became inspired to visit Kamchatka. He was struck by how little Kamchatka had been

explored. Fedor Pavlovich was smitten by the idea of organizing the Kamchatka expedition and actively began to prepare for its implementation. Once he had almost decided to go on a reconnaissance trip there, but was stopped by his rapidly developing tuberculosis. Then, he turned to the Head of the RGS, P.P. Semenov, and with their mutual consent this expedition took place.

F.P. Ryabushinsky donated 200,000 rubles. However, his weak health did not allow him to participate personally in the expedition. In 1910, F.P. Ryabushinsky died from foudroyant phthisis. He instructed his heirs to see the matter through. As a result, a very well prepared and truly integrated scientific expedition was organized. This expedition was one of the most effective in terms of collected scientific material after a long-term period of inaction in Kamchatka research.

The Head of the expedition was a botanist Vladimir Leontievich Komarov (1869–1945), the future President of the USSR Academy of Sciences (Fig. 7). The expedition consisted of six separate divisions: geological, meteorological,



Fig. 6. Fedor Pavlovich Riabushinsky.



Fig. 7. Vladimir Leontievich Komarov.



Fig. 8. Members of the Geological division of the Kamchatka expedition.

botanical (led by V.L. Komarov), zoological, hydrological, and ethnographic.

The Geological division of the Ryabushinsky's expedition (see Figure 8) undertook a

detailed integrated exploration of the southern part of Kamchatka, of the volcanic areas Shiveluch and Klyuchevskoy in the central part of the peninsula, and of the gulfs Karaginskij and Korf (Fig. 9) during three field

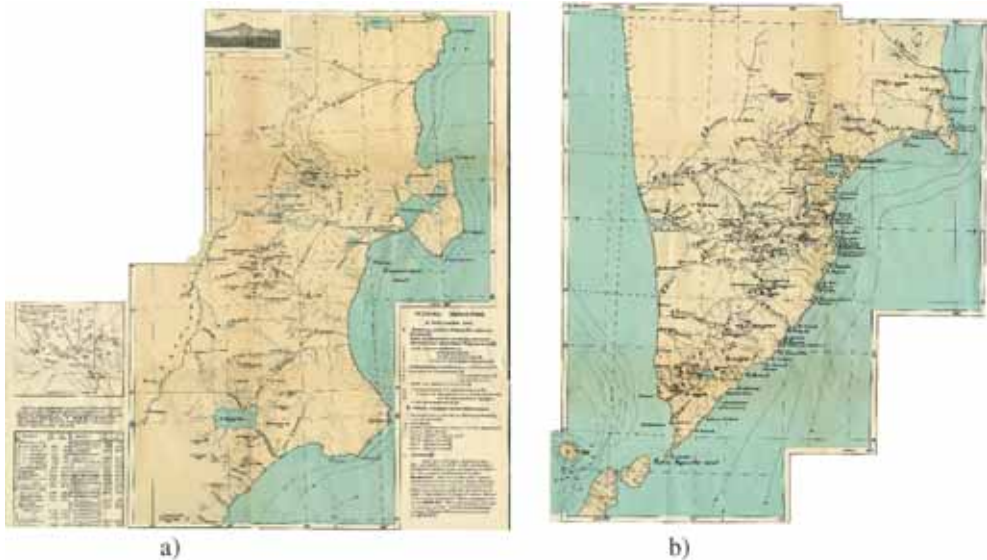


Fig. 9. Map of volcanoes of Kamchatka: the northern and southern sheets.



Fig. 10. Participants of the exhibition devoted to the Kamchatka expedition in December 1912.

seasons from 1908 to 1910. Additionally to the field studies, the Meteorological division organized five permanent weather stations in the city of Petropavlovsk and the villages Kluchi, Mil'kovo, Tigil and Bolsheretsk. The efforts of the Botanical division were summarized in the monumental three-volume work of V.A. Komarov "Flora of Kamchatka". The activities of the Zoological and Hydrological divisions were presented at the meetings of the Geographical Society and were published in its reports. The data gathered by the Ethnographic division were published later in books about Itelmens and Koryak people.

The material accumulated by the expedition was preserved in the collections of V.L. Komarov and P.Y. Schmidt, in the RGS archives, in St. Petersburg. An enormous number of photographic negatives and slides that reflect the geography, geology, anthropology and life of the aborigines and zoology and botany of Kamchatka were also stored in the RGS's archives, in

the collection "Slides and Negatives of the Geographical Society Expeditions in 1873–1957". Another interesting fact is that the RGS's archives have documents of a "lawsuit over the embezzlement by the Captain, 2nd Rank, Kuzmin-Karavaev, a former commander of the cruiser "Kolyma", of the money allocated for Iokhel'son". Out of 15,140 rubles intended for the needs of the Ethnographic division of the expedition, Kuzmin-Karavaev transferred to Iokhel'son only 7,500 rubles. The case was heard in the Naval Court of Vladivostok, which sentenced Karavaev to two and a half years in prison in a fortress.

The 1908–1910 multidisciplinary expedition of the RGS to Kamchatka was widely reported in the world press. The participants' letters about the events were published along with their reports, photographs, and summaries of the catalogs of the expedition's divisions. In 1910–1913, numerous articles about this expedition appeared in many Russian newspapers and magazines. The interest

in the expedition was resumed when in December of 1912, the RGS arranged an exhibition devoted to the Kamchatka expedition (Fig. 10) in the Society's building. Within three weeks following the exhibition, P.P. Semenov-Tian-Shansky received a gift from the Winter Palace – a “brooch-pendant with the national coat of arms, decorated with sapphires and diamonds, and the accompanying certificate for the gift mercifully granted to the widow of hereditary and honorary citizen Tatiana Konstantinovna Riabushinsky”.

In this context, it is appropriate to recall another detail. Shortly after the expedition, the RGS planned to publish six volumes of scientific works (for each expedition's division). Since the funding for the expedition came from a private party, it was necessary to settle differences with the heir of the patron, who was Riabushinsky's widow. T.K. Riabushinsky categorically stated on October 18, 1910, that she would publish the materials of the expeditions herself. That started the litigation process, which was reflected in the correspondence with P.Y. Schmidt. Judging by the fact that the expedition's results were published as scientific papers only in the Soviet era (in 1928–1930), and even then, not in their entirety, it may be concluded that the heiress was successful in having her way.

Over the past 100 years, the natural environment of Kamchatka has been studied extensively, but the attention was focused primarily on volcanic activity. In 1935, at the initiative of Academician F.Y. Levinson-Lessing, the Academy of Sciences established a volcanological station at the foot of the Kluchevskaya Sopka; this station is active to this day. Currently, scientists are studying the links between volcanism and seismicity, tectonics and modern ore formation, etc. These studies should lead to the creation of a geodynamic model of the transition zone from the Asian continent to the Pacific Ocean, where modern geological processes are most pronounced.

The expedition to Kamchatka played a significant role in promoting science in the Russian Far East. Important scientific and public institutions were founded in this region as a result of this endeavor. The two institutions directly associated with the expedition are the Kamchatka branch of the RGS and the Institute of Volcanology and Seismology (Far Eastern Branch of the Russian Academy of Sciences). These institutions are important members of the Russian scientific community and are well known around the world. ■

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