

Malyshev L. L., Buravtzeva T. V., Chapurin V. F. GENETIC RECOURSES OF FORAGE CROPS AND GRAIN LEGUMES OF NORTH-WEST OF EUROPEAN PART OF RUSSIAN FEDERATION. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 3–10.

The results of field observations on the territory of European part of Russian Federation North-West Region in 2002, 2007 and 2011 are summarized in the article. The differential maps of collections by agricultural groups and separated genera are presented.

Key words: plant genetic recourses, forage crops, grain legumes, North-West region of Russia.

Vishnyakova M. A., Burlyaeva M. O., Seferova I. V., Neumin S. I., Kulikov P. V., Martyushov P. A. EXPEDITION COLLECTION OF TRIBE VICIEAE REPRESENTATIVES IN RUSSIAN FEDERATION AND ON THE ADJACENT AREA. MIDDLE AND SOUTHERN URAL.

Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 11–16.

The paper is devoted to the expedition observation of the vast area of the Southern Ural. This area is known as a refuge of tertiary Flora for some endemic species of tribe *Vicieae* (Adans.) Bronn family Fabaceae Lindl. The seeds of 77 accessions of the representatives of the tribe have been collected: 7 *Lathyrus* L. species and 8 *Vicia* L. ones, including Ural endemics – *V. nervata* Sipl. и *L. litvinovii* Iljin, listed in Red Book of Chelyabinsk region. The theoretic and applied background and aims of expeditions are discussed. The collected material is included in the collection of Vavilov Institute and will be used for genotyping with the aim of resolution of systematic and phylogenetic problems of the tribe, as well as for passportization of the collection and replenishment of DNA bank. New knowledge on the biology of collected species have been received.

Key words: expedition mission, collection, tribe *Vicieae*, *Vicia*, *Lathyrus*, endemics, classification, phylogeny.

Vishnyakova M. A., Burlyaeva M. O., Seferova I. V., Bagmet L. V., Semenov V. A. EXPEDITION COLLECTION OF TRIBE VICIEAE REPRESENTATIVES IN RUSSIAN FEDERATION AND ON THE ADJACENT AREA. THE NORTHERN CAUCASUS. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 17–21.

The paper is devoted to the expedition observation of the Northern Caucasus. This area is known as a habitat of some endemic species of tribe *Vicieae* (Adans.) Bronn. family Fabaceae Lindl. The route of the expedition mission was about 1500 km and had been passed through Karachai-Cherkess, Kabardino-Balkaria, Adygei Republics and Krasnodar region. The seeds of 67 accessions of 9 *Lathyrus* L. species and 13 *Vicia* L. ones have been collected. The collected material is included in the collection of Vavilov Institute and will be used for genotyping with molecular markers for the investigation of systematic and phylogenetic problems of the tribe, as well as for passportization of the collection and replenishment of DNA bank. New knowledge on the biology of collected species have been received.

Key words: expedition mission, collection, tribe *Vicieae*, *Vicia*, *Lathyrus*, endemics, classification, phylogeny.

Vishnyakova M. A., Burlyaeva M. O., Aleksandrova T. G., Sabitov A. Sh., Chebukin P. A. EXPEDITION COLLECTION OF TRIBE VICIEAE REPRESENTATIVES IN RUSSIAN FEDERATION. PRIMORSKY REGION. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 22–25.

The paper is devoted to the expedition observation of the Primorsky region. This area is known as a habitat of some endemic species of tribe *Vicieae* (Adans.) Bronn. family Fabaceae Lindl. The route of the expedition mission was about 2500 km. The seeds of 192 accessions of 6 *Lathyrus* L. species and 10 *Vicia* L. ones have been collected. The collected material has been included in the collection of Vavilov Institute and will be used for genotyping with molecular markers for the investigation of systematic and phylogenetic problems of the tribe, as well as for passportization of the collection and replenishment of DNA bank.

Key words: expedition mission, collection, tribe *Vicieae*, *Vicia*, *Lathyrus*, *Orobis*, endemics, classification, phylogeny.

Buravtzeva T. V., Malyshev L. L., Chapurin V. F. GENETIC RECOURSES OF FORAGE CROPS AND GRAIN LEGUMES OF SOUTHERN AND CENTRAL URAL. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 26–39.

The results of field observations on the territory of Southern and Central Ural are summarized in this article. The differential maps of collections by agricultural groups and separated genera are presented.

Key words: genetic recourses, forage crops, grain legumes, Ural.

Dzyubenko N. I., Dzyubenko E. A., Douglas Johnson, Paul Johnson, Robert Soreng EXPEDITION EXPLORATION AND COLLECTION OF TURF AND FORAGE SPECIES DIVERSITY AT THE NORTHERN CAUCASUS IN 2010. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 40–49.

The paper is devoted to the expedition exploration of the Northern Caucasus and collecting seeds of turf grasses and forage species. This area is known for its richness of *Poa*, *Festuca*, *Agrostis* and others genera of turf grasses. Problem of breeding of so-called low-input turf grasses is very actual now all over the world. The route of the expedition mission was about 2500 km. The seeds of 340 wild-growing turf and forage species were collected. 162 herbarium sheets were collected as vouchers for species.

Key words: collection mission, low-input turf grasses, forage species.

Radchenko O. E., Bagmet L. V., Boyko A. P. WILD RELATIVES OF FRUIT CROPS IN THE WESTERN TRANSCAUCASIA. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 50–55.

The paper is devoted to the expedition observation of regions of the Western Transcaucasia in 2010, located in close proximity to the territory of building of the Olympic objects in Sochi. Unique natural complexes which destruction threatens were researched. Collection of seeds and a herbarium of wild relatives of cultivated plants, first of all fruit crops for their further preservation in the VIR collection was carried out.

Key words: flora, mission, wild relatives of cultivated plants, fruit crops, herbarium, collection.

Lenivtseva M. S. DISTRIBUTION OF CHERRY SPECIES IN THE RUSSIAN FAR EAST. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 56–62.

It is resulted in identification of new sites and more accurate mapping of the known areas of distribution of such cherry species (*Cerasus* Mill. sensu Yushev) as *Cerasus kurilensis* (Miyabe.) Kaban. et Vorobiev, *C. maximowiczii* (Rupr.) Kom., *C. sachalinensis* (F. Schmidt Fr.) Kom. et Aliss., and *C. maackii* (Rupr.) Erem. et Simag. in Primorsky Region and Sakhalin Province. *C. kurilensis* (Kurile cherry) occurs most frequently on the island of Iturup near the towns and settlements Pioner, Rybaki, Vetrovoye, Sentyabrskoye, Parusnoye, Burevestnik, Gorny, Kurilsk, Goryachiye Klyuchi and in the vicinity of Bogdan Khmelnsky Volcano. *C. maackii* (Manchurian cherry) grows in Primorsky Region. *C. sachalinensis* (Sakhalin cherry) is distributed both in Primorsky Region and Sakhalin Province, frequently occurring in the vicinity of Chirip and Bogdan Khmelnsky Volcanoes, near Kurilsk, Goryachiye Klyuchi and Lebedinoye, on Kunashir Island close to Golovnino, Popov and Reyneke Islands. *C. maximowiczii* (Miyama or Korean cherry) grows in Primorsky Region, on Popov, Reyneke and Russky Islands, Sakhalin and the Kuriles – Iturup, Kunashir and Shikotan. On Shikotan Island only a single sample was found on a hill not far from Krabozavodskoye.

Key words: *Cerasus kurilensis* (Kurile cherry), *Cerasus maackii* (Manchurian cherry), *Cerasus sachalinensis* (Sakhalin cherry), *Cerasus maximowiczii* (Miyama or Korean cherry), Primorsky region and Sakhalin province.

Vishnyakova M. A., Burlyaeva M. O., Aleksandrova T. G., Sabitov A. Sh., R. Zhang, J. Zhang, Chebukin P. A. EXPEDITION COLLECTION OF TRIBE VICIEAE REPRESENTATIVES IN RUSSIAN FEDERATION AND ON THE ADJACENT AREA. KHABAROVSK REGION AND NORTH-EASTERN CHINA. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 63–67.

The paper is devoted to the expedition observation of the Primorky and Khabarovsk regions and Hēilóngjiāng province on the north-east of China with the aim of collection of representatives of tribe *Vicieae* (Adans.) Bronn. of Fabaceae Lindl. This area is known as a habitat of some endemic species of tribe. The route of collection mission was about 5000 km. In 91 sites of 7 administrative districts of Khabarovsk region and 4 districts of Primorye, as well as in China 119 herbariums and seeds of 64 accessions of the representatives of *Vicieae* have been collected: 5 *Lathyrus* L. species and 10 *Vicia* L. species. This region was specific by the greatest number so called “oroboid” collected species, which are indispensable for the resolution of some disputable questions of taxonomy of the tribe. The collected material has been included in the collection of Vavilov Institute and will be used for genotyping with molecular markers for the investigation of systematic and phylogenetic problems of the tribe, as well as for passportization of the collection and replenishment of DNA bank.

Key words: expedition mission, collection, tribe *Vicieae*, *Vicia*, *Lathyrus*, *Orobis*, endemics, classification, phylogeny.

Smekalova T. N., Zhuk M. A., Kovaleva O. N., Bagmet L. V., Kavahara T., Sasanuma T., Sato K. BARLEY, WHEAT AND AEGILOPS GENETIC RESOURCES ON THE TERRITORY OF RUSSIAN CAUCASUS (BY MATERIALS OF MISSION 2010). Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 68–71.

The results of mission inspection on Russian Caucasus territory are published in the article. The purpose of mission was investigation of morphological characters of *Hordeum*, *Triticum*, *Aegilops* species and seed and herbarium samples collecting.

Key words: morphological, geographic and ecological characters of barley and wheat, samples, seeds, herbarium.

Burlyayeva M. O., Kotseruba V. V., Aleksandrova T. G., Musaev A. M., Guseinova Z. A., Radjabov G. S. EXPEDITION COLLECTION OF TRIBE VICIEAE (ADANS.) BRONN. AND CICEREALE ALEFELD IN THE HIGHLANDS OF DAGESTAN. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 72–79.

The paper is devoted to the expedition observation of the high mountainous areas of Dagestan. This area is known as a habitat of some endemic species of tribe *Vicieae* (Adans.) Bronn. and *Cicereae* Alefeld family Fabaceae Lindl. The most interesting result of the survey expedition highland areas of the Eastern Caucasus was the discovery of the new habitats *Cicer minutum* Boiss. Et Hohen. and *Vavilovia formosa* (Stev.) Fed. Both species are very rare in nature and included in the Red Book of Russia. Within Russia this species is not found in the last century, since it was collected by V. M. Prima in 1970–1971. The collected material is included in the collection of Vavilov Institute and will be used for genotyping with molecular markers for the investigation of systematic and phylogenetic problems of the tribe, as well as for passportization of the collection and replenishment of DNA bank.

Key words: expedition mission, collection, tribe *Vicieae*, *Vicia*, *Lathyrus*, *Cicer*, *Vavilovia*, endemics.

Zhuk M. A., Chukhina I. G., Shipilina L. Yu. DIVERSITY OF CROP WILD RELATIVES IN FLORA OF ARKHANGELSK REGION BASED ON VIR EXPEDITION FINDINGS. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 80–87.

Diversity of crop wild relatives (CWR) was studied on the territory of Arkhangelsk region during expeditions in 2010 and 2011. As a result, the richest in CWR species diversity areas and plant communities have been allocated. The route of the expedition in 2010 partly repeated one of Y. D. Tsynzerling missions (in 1922). This fact gives us an opportunity to conduct a comparative taxonomic analysis and to evaluate change of CWR diversity in the valleys of Puya and Vaga rivers.

Key words: crop wild relatives (CWR), Arkhangelsk region, expeditions, Y. D. Tsynzerling.

Smekalova T. N., Kovaleva O. N., Sato K., Tsujimoto H., Pulodov M., Amonulloev M., Abdulloev S. EXPEDITION MISSION TO MOUNTAINOUS BADAKHSHAN FOR WHEAT, BARLEY AND THEIR WILD RELATIVES INVESTIGATION. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 88–96.

The results of mission inspection on the territory of Mountainous Badakhshan are published in the article. The mission purpose was collecting of wheat, barley and their crop wild relatives -seed and herbarium samples.

Key words: wheat, barley, samples, herbarium, collection, genebank.

Loskutov I. G. FOLLOWING VAVILOV'S EXPEDITIONS. SARDINIA. ITALY. Proceedings on applied botany, genetics and breeding. Vol. 175. I. 1. 2014. pp. 97–102.

Some historical and factual data about N. I. Vavilov's organization of exploration of Sardinia (Italy) in 1927 and joint results of exploration organizing of VIR and Università degli Studi di Sassari in 2012.

Key words: N. I. Vavilov, Sardinia, cereals genetic resources, collecting, exploration, seed collection.