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# To the study of species composition of wild relatives of cultivated plants of floristic area Mugodzhary mountains

At the article the analysis of species composition and perspective degree of wild relatives of cultivated plants of floristic region Mugodzhary (Aktobe region, Kazakhstan) is conducted. As results of treatment of literature data and own field investigation is determined that the list of wild relatives of cultivated plants of present floristic region includes 123 species from 73 genera and 19 families. The most spreading families are *Poaceae* (40 species)*, Fabaceae* (18 species)*, Rosaceae* (14 species) и *Asteraceae* (10 species). Among wild relatives of cultivated plants the maximum number belonged to fodder plants — 106 species; second position belonged to food plants — 61 species, on third position — medical plants (herbs) with 37 species. Meadow plants presented 24 species, technical plants — 20 species, vitamin plants — 13 species and decorative plants — 21 species. Among life forms are dominated perennial herbal plants. The analysis of priority of wild relatives of cultivated plants let us to separate all plants the following: to 1st group — 25 species; to 2nd group — 3 species; to 3rd group — 19 species; to 4th group — 4 species; to 5th group — 72 species.

*Keywords:* wild relatives of cultivated plants, Mugodzhary, floristic region, practical-useful properties, perspective properties, flora.

*Actuality.* The creation of new high productive sorts of plants, used for production of high qualitative foods and fodders, adapted for adverse environmental conditions, against diseases and vermin, needs a wide choice of initial materials which important part are wild relatives of cultivated plants (WRCP) [1–3]. Present times, WRCP includes not only those species which spontaneous or with participation of human took part in forming of cultural sorts, but those plants are potential sources for selective breeding.

The last years there is the imperative necessity for preparation of WRCP list for Kazakhstan with separation on floristic regions and geographic points, because without special investigation aimed at a thorough inventory of economically valuable species in the Republic, it is impossible to plan activities for their protection and practical use.

So, the purpose of present study was to identify a complete list of WRCP on the territory of floristic region mountains Mugodzhary (Aktobe region), range them by life forms, extent, prospects, and economic-term value.

## *Methodology*

The materials for compiling of Mugodzhary Mountains WRCP list were republican lists of flora [4–12], literatural sources of emloyers of All-Russian Institute of Plants (Saint-Petersburg) and others authors [13–15], also own field investigations.

In order to solve the problem of the selection of species needed in priority storage in situ, in All-Russian Institute of Plant perspective scale is devised [16, 17]. By degree of priority all WRCP were ranged by several parameters: participation in the selection process (direct participation, participation in hybridization, the use as donors of useful traits, as rootstocks, etc.), systematic proximity to the cultural species, and the degree of use in the human economic activity. As result five groups were separated: 1st group are species directly presented in culture, having sorts; 2nd group — species directly participated in hybridization as sources of genes or as rootstock; 3rd group — species with close relationship with the introduced in culture (consisting of one section or subgenus), perspective for economic use; 4th group — other useful species of the genus used in gathering and national selection; 5th group — all other species of this genus.

Determination of life forms conducted with methodological recommendations of I.G. Serebryakov [18], practical-valued groups of plants — on the base of bibliography data [19].

*Results and their discussion*

Mugodzhary Mountains are mountain ranges on West of Kazakhstan, which are southern Ural Mountains ending [20, 21]. Mugodzhary (or Mugodzhary ridge) stretched from north to south aproximetely 200 km, and with width of 30 km.

They are a narrow ridge, which are nearby Mount Airyuk divided into two parallel ranges — the Western and the Eastern Mugodzhary. West ridge is above the east. Heir is the most significant Apex of Mugodzhary — Big Boktybay (657 m). The average height of Mugodzhary is 250–350 m.

Mugodzhary have the landscape of steppe zone. At the western part of Mugodzhary Mountains on brawn, dark-brawn soils are grown up plants from genus *Stipa* and *Festuca*. On the west of province there are massive of desert steppe, in mountains — stone steppe with c *Artemisia lessingiana*, also thickets with *Spiraea hypericifolia*. In a strongly dismembered hollows there are plants belonging to the group of Ar*temisia pauciflora*. On the upper slopes of ravines are grown bushes of acacia, meadowsweet, wild cherry, and on the shores of rivers — poplar, birch, oak, willow. In lowland arid steppe of Mugodzhary soils are light-brown, vegetation cover is inherent for steppe and desert zones. On salty-brawn soils are grown *Stipa pennata, Stipa tenuissima, Atriplex*.

On the south Mugodzhary covered vegetative societies with *Stipa, Artemisia* and *Salsola*. Along the axis of the ridge feather-fescue rocky steppes on dark-brawn gravelly soils with lots of feather grass, fescue and wormwood dominated; on the slopes of steppe shrubs developed; and in moist logs — small birch grove. In the foothills were wormwood-fescue rocky steppes on light-brown carbonate and salty gravelly soils with an abundance of other species of wormwood; in the south they are replaced by fescue-black wormwood stony semi-desert; on saline soils — with *Atriplex cana* and other halophytes.

Altitude zonation is expressed very poorly. Heir is dominated a mountain-steppe zone, occupied almost central area of Mugodzhary. In depressions with moisten-set are grown groves of *Betula, Populus tremula, Salix, Prunus padus, Cerasus fruticosa, Amygdalus nana* and *Caragana*.

As a result of research in the area of floral region Mugodzhary Mountains (Aktobe oblast) are revealed 123 species of WRCP from 73 genera and 19 families (Table 1).

Table 1

**The list of WRCP of floristic region — Mugodzhary Mountains**

| Family | Genus | Species | Life form | Economic importance | Group of perspectives |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| *Alliaceae* | *Allium* L. | *A.angulosum* L. | Perennial | F,v | 5 |
| | | *A.delicatulum* Siev.ex Roem.et Schult. | Perennial | F,v | 5 |
| | | *A.flavescens* Bess. | Perennial | F,v | 5 |
| | | *A.globosum* M.Bieb.ex Redoute | Perennial | F,v | 5 |
| | | *A.inderiense* Fisch.et Bunge | Perennial | F,v | 5 |
| | | *A.lineare* L. | Perennial | F,v | 5 |
| | | *A.praescissum* Reichenb. | Perennial | F,v | 5 |
| *Amaranthaceae* | *Amaranthus* L. | *A.albus* L. | Annual | F,fd,d,t | 4 |
| | | *A.blitoides* S.Wats. | Annual | F,fd,d,t | 5 |
| | | *A.retroflexus* L. | Annual | Fd,d,t,m | 1 |
| *Asparagaceae* | *Asparagus* L. | *A.officinalis* L. | Perennial | Fd,f,m,d | 1 |
| *Asteraceae* | *Artemisia* L. | *A.dracunculus* L. | Perennial | Fd,m,f | 1 |
| | | *A.terrae-albae* Krasch. | Perennial | Fd,m | 4 |
| | *Cichorium* L. | *C.intybus* L. | Perennial | Fd,f,m,d | 1 |
| | *Inula* L. | *I.caspica* Blume | Perennial | Fd,m | 5 |
| | | *I.britanica* L. | Perennial | Fd,m | 5 |
| | | *I.germanica* L. | Perennial | Fd,m | 5 |
| | | *I.helenium* L. | Perennial | F,fd,m | 3 |
| | *Lactuca* L. | *L.serriola* Torner.ex L. Centur | Annual | F, fd | 3 |
| | | *L.tatarica* (L.) C.A. Mey. | Perennial | F, fd | 3 |
| | *Taraxacum* Wigg. | *T.officinale* Wigg. | Perennial | Fd,f,m | 3 |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| *Brassicaceae* | *Alyssum* L. | *A.desertorum* Stapf. | Annual | Fd | 5 |
| | *Brassica* L. | *B.elongata* Ehrh. | Biennial | Fd,t,f | 5 |
| | | *B. juncea* (L.) Czern. | Biennial | M,fd,f,md | 5 |
| | *Camelina* Crantz. | *C.micricarpa* Andrz. | Annual | F, fd | 5 |
| | *Iruca* Adans. | *I.sativa* Lam. | Annual | F | 5 |
| | *Isatis* L. | *I.tinctoria* L. | Biennial | Fd, t | 2 |
| | | *I.sabulosa* Stev.ex Ledeb. | Biennial | Fd | 3 |
| *Cannabaceae* | *Cannabis* L. | *C.ruderalis* Janisch. | Annual | Fd,f,t,m | 1 |
| | *Humulus* L. | *H.lupulus* L. | Perennial | Fd,f,m | 1 |
| *Caprifoliaceae* | *Lonicera* L. | *L.microphylla* Willd.et Schult. | Bush | F, d | 4 |
| | | *L.tatarica* L. | Bush | F, d | 1 |
| *Chenopodiaceae* | *Anabasis* L. | *A.salsa* (C.A. Mey.) Benth | Shrub | Fd | 5 |
| | *Atriplex* L. | *A.cana* C.A. Mey | Semi-shrub | F, t | 5 |
| | | *A.tatarica* L. – л.седая | Annual | Fd, t | 5 |
| | *Ceratocarpus* L. | *C.arenarius* L. | Annual | Fd | 5 |
| | *Kochia* Roth. | *K.laniflora* (S.G. Gmel.) Bobr. | Annual | Fd, t, d | 5 |
| | | *K.prostrata* (L.) Schrad. | Perennial | Fd | 3 |
| | | *K.scoparia* (L.) Schrad. | Annual | Fd,t,d | 1 |
| | *Krascheninnikovia* Gueldenst. | *K.ceratoides* (L.) Gueldenst. | Semi-bush | Fd,t,md | 5 |
| | *Salsola* L. | *S.australis* R.Br. | Annual | Fd, t | 5 |
| *Elaeagnaceae* | *Elaeagnus* L. | *E.angustifolia* L. | Tree | T,md,fd,f,d | 1 |
| | | *E.oxycarpa* Schlecht. | Tree | T,md,fd,d | 1 |
| *Fabaceae* | *Glycyrrhiza* L. | *G.aspera* Pall. | Perennial | Fd, m | 5 |
| | | *G.korshinskyi* G.Grig. | Perennial | Fd, m | 4 |
| | | *G.uralensis* Fisch. | Perennial | Fd,m,t | 3 |
| | *Lathyrus* L. | *L.palustris* L. | Perennial | Fd | 5 |
| | | *L.pisiformis* L. | Perennial | Fd | 5 |
| | | *L.pratensis* L. | Perennial | Fd | 5 |
| | | *L.tuberosus* L. | Perennial | Fd | 5 |
| | *Medicago* L. | *M.falcata* L. | Perennial | Fd, md | 2 |
| | | *M.komarovii* Vass. | Perennial | Fd | 5 |
| | | *M.lupuluna* L. | Annual | Fd | 3 |
| | | *M.trautvetteri* Sumn. | Perennial | Fd, md | 3 |
| | *Melilotus* Adans. | *M.albus* Desr. | Biennial | Fd, md, m | 1 |
| | | *M.officinalis* (L.) Desr. | Biennial | Fd, md, m | 1 |
| | *Trigonella* L. | *T.arcuata* C.A. Mey | Annual | Fd | 5 |
| | *Vicia* L. | *V.cracca* L. | Perennial | Fd, d | 5 |
| | | *V.tenuifolia* Roth. | Perennial | Fd, md | 5 |
| | | *V.sepium* L. | Annual | Fd, md | 5 |
| | | *V.tetrasperma* (L.) Schreb. | Annual | Fd, md | 5 |
| *Grossulariaceae* | *Ribes* L. | *R.aureum* Pursh | Bush | Fd, f, d | 1 |
| | | *R.saxatile* Pall. | Bush | F | 3 |
| *Lamiaceae* | *Mentha* L. | *M.arvensis* L. | Perennial | F | 1 |
| *Malvaceae* | *Althaea* L. | *A.officinalis* L. | Perennial | T,fd,m | 2 |
| | *Malva* L. | *M.pusilla* Smith | Perennial | Fd,m | 5 |
| *Poaceae* | *Aeleropus* Trin. | *A.littoralis* (Gouan) Parl. | Perennial | Fd,m | 5 |
| | *Agropyron* Gaertn. | *A.cristatum* (L.) Gaertn. | Perennial | Fd, f | 1 |
| | | *A.desertorum* (Fisch.ex Link.) Schult. | Perennial | Fd, f | 3 |
| | | *A.fragile* (Roth) Candargy | Perennial | Fd | 5 |
| | | *A.pectinatum* (Bieb.) Beauv. | Perennial | Fd | 5 |
| | | *A.ramosum* (Trin.) Richt. | Perennial | Fd | 5 |
| | *Agrostis* L. | *A.alba* L. | Perennial | Fd | 5 |
| | *Alopecurus* L. | *A.pratensis* L. | Perennial | Fd | 5 |
| | *Anisantha* C. Koch. | *A.tectorum* (L.) Nevski | Annual | Fd | 5 |
| | *Beckmannia* Host | *B.eruciformis* (L.) Host | Perennial | Fd | 5 |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| | *Bromopsis* Fourr. | *B.inermis* (Leyss.) Holub. | Perennial | Fd | 5 |
| | *Bromus* L. | *B.japonicus* Thunb. | Annual | Fd | 5 |
| | | *B.squarrosus* L. | Annual | Fd | 5 |
| | *Crypsis* Ait. | *C.aculeata* (L.) Ait. | Annual | Fd | 5 |
| | *Cynodon* Rich. | *C.dactylon* (L.) Pers. | Perennial | Fd, md | 5 |
| | *Echinochloa* P.B. | *E.crus galli* (L.) Roem.et Schult. | Annual | Fd | 5 |
| | *Elytrigia* Desv. | *E.repens* (L.) Neski | Perennial | Fd,m | 3 |
| | *Eremopyrum* (Ledeb.) Jaub.et Spach | *E.bonaepartis* (Spreng.) Nevski | Annual | Fd | 5 |
| | | *E.orientale* (L.) Jaub.et Spach | Annual | Fd | 5 |
| | | *E.triticeum* (Gaertn.) Nevki | Annual | Fd, f | 5 |
| | *Festuca* L. | *F.orientalis* Kerner ex Hack. | Perennial | Fd | 5 |
| | *Hierochloe* R.Br. | *H.odorata* (L.) Wahlb. | Perennial | F | 5 |
| | *Helictotrichon* Bess. | *H.desertorum* (Less.) Nevski | Perennial | Fd | 5 |
| | *Hordeum* L. | *H.bogdanii* Wilensky | Perennial | Fd | 5 |
| | | *H.brevisibulatum* (Trin.) Link | Perennial | Fd | 5 |
| | *Koeleria* Pers. | *K.glauca* (Spreng.) DC. | Perennial | Fd | 5 |
| | | *K.gracilis* Pers. | Perennial | Fd | 5 |
| | *Melica* L. | *M.taurica* K.Koch. | Perennial | Fd | 5 |
| | | *M.transsilvanica* Schur. | Perennial | Fd | 5 |
| | *Poa* L. | *P.angustifolia* L. | Perennial | Fd | 5 |
| | | *P.annua* L. | Annual | Fd | 5 |
| | | *P.bulbosa* L. | Perennial | Fd | 5 |
| | | *P.compressa* L. | Perennial | Fd | 5 |
| | | *P.pratensis* L. | Perennial | Fd | 5 |
| | | *P.serotina* Ehrh. | Perennial | Fd | 5 |
| | *Phleum* L. | *Ph.phleoides* (L.) Karst. | Perennial | Fd,d | 5 |
| | | *Ph.pratense* L. | Perennial | Fd | 5 |
| | *Pucinellia* Parl. | *P.gigantea* Grossh. | Perennial | Fd | 5 |
| | *Secale* L. | *S.sylvestre* Host | Annual | Fd, f | 3 |
| | *Setaria* P.B. | *S.viridis* (L.) P.B. | Annual | Fd | 5 |
| *Polygonaceae* | *Fagopyrum* Gaertn. | *F.tataricum* (L.) Gaertn. | Annual | Fd, f | 1 |
| | *Polygonum* L. | *P.aviculare* L. | Annual | Fd,f,m,t | 3 |
| | *Rheum* L. | *Rh.tataricum* L. | Perennial | Fd,f,m | 3 |
| | *Rumex* L. | *R.acetosa* L. | Biennial | Fd, f | 1 |
| | | *R.confertus* Willd. | Perennial | Fd,t,f,m | 5 |
| | | *R.crispus* L. | Perennial | Fd, f | 5 |
| | | *R.maritimus* L. | Perennial | Fd | 5 |
| | | *R.marschallianus* Reichenb. | Annual | Fd,f,m | 5 |
| | | *R.thyrsiflorus* Fingern. | Perennial | Fd, f | 5 |
| *Rosaceae* | *Amygdalus* L. | *A.nana* L. | Bush | D,f,m | 3 |
| | *Cerasus* Juss. | *C.fruticosa* (Pall.) G.Woron. | Bush | Fd,d,m | 1 |
| | *Cotoneaster* Medik. | *C.melanocarpa* Lodd. | Bush | D,f,t | 5 |
| | *Crataegus* L. | *C.altaica* Lge. | Tree | F,fd,md,d,m,v | 5 |
| | *Fragaria* L. | *F.vesca* L. | Perennial | F,fd,m,v,md | 3 |
| | *Padus* Mill. | *P.racemosa* (Lam.) Gilib. | Bush | F,d,md,t | 1 |
| | *Prunus* Mill | *P.spinosa* L. | Bush | F,v,d | 1 |
| | *Rosa* L. | *R.acicularis* Lindl. | Bush | F,m,v,md | 1 |
| | | *R.beggeriana* Schrenk | Bush | F,m,v,md | 1 |
| | | *R.canina* L. | Bush | F,v,m,d,md | |
| | | *R.pisiformis* Regel. | Bush | F,v,m,d,md | 3 |
| | | *R.laxa* Retz. | Bush | F,m,d,md | 3 |
| | *Rubus* L. | *R.caesius* L. | Bush | F,fd,m,v,md | 1 |
| | | *R.matsumuranus* Levl.et Vaniot | Bush | F,fd,md | 5 |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| *Solanaceae* | *Solanum* L. | *S.dulcamara* L. | Semi-bush | F | 1 |
| | | *S.nigrum* L. | Annual | F | 1 |
| *Urticaceae* | *Urtica* L. | *U.dioica* L. | Perennial | F,fd,t,m | 3 |
| *Vacciniaceae* | *Oxycoccus* Adans. | *O.quadripetalus* Gilib. | Semi-bush | F | 1 |

*Footnote*. Groups of practical value: f — food, v — vitamin, fd — fodder, m — medical, t — technical, md — meadow, d — decorative.

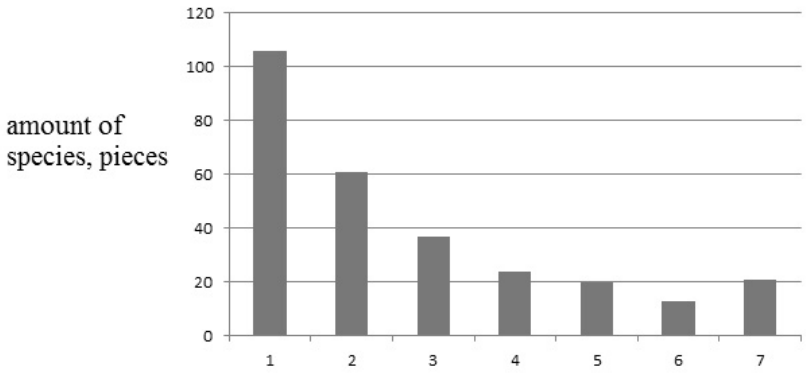
The greatest number of WRCP species noted in the family Poaceae (40 species), Fabaceae (18 species), *Rosaceae* (14 species) and *Asteraceae* (10 species) (Table 2).

Table 2

**Taxonomic composition of WRCP of floristic region Mugodzhary**

| Family | Numbers of genera, pieces | Numbers of species, pieces |
|---|---|---|
| *Alliaceae* | 1 | 7 |
| *Amaranthaceae* | 1 | 3 |
| *Asparagaceae* | 1 | 1 |
| *Asteraceae* | 5 | 10 |
| *Brassicaceae* | 5 | 7 |
| *Cannabaceae* | 2 | 2 |
| *Caprifoliaceae* | 1 | 2 |
| *Chenopodiaceae* | 6 | 9 |
| *Elaeagnaceae* | 1 | 2 |
| *Fabaceae* | 6 | 18 |
| *Grossulariaceae* | 1 | 2 |
| *Lamiaceae* | 1 | 1 |
| *Malvaceae* | 2 | 2 |
| *Poaceae* | 24 | 40 |
| *Polygonaceae* | 4 | 9 |
| *Rosaceae* | 9 | 14 |
| *Solanaceae* | 1 | 2 |
| *Urticaceae* | 1 | 1 |
| *Vacciniaceae* | 1 | 1 |

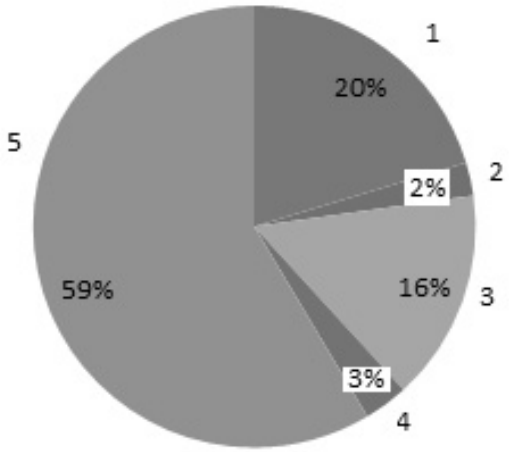
We conducted analysis of practical-valued groups of plants. So, it is determined that among WRCP the maximum number belonged to fodder plants — 106 species; second position belonged to food plants — 61 species, on third position — medical plants (herbs) with 37 species. Meadow plants presented 24 species, technical plants — 20 species, vitamin plants — 13 species and decorative plants — 21 species (Fig. 1).




Practical-valued groups: 1 — fodder, 2 — food, 3 — medical, 4 — meadow, 5 — technical, 6 — vitamin, 7 — decorative

Figure 1. Spreading of WRCP of Mugodzhary Mountains by practical-valued groups

By degree of priority and perspectives all species are separated irregularly. So, in 1st group are included 25 species (among them *Rubus caesius, Solanum dulcamara, Solanum nigrum, Padus racemosa* and other) (Fig. 2).

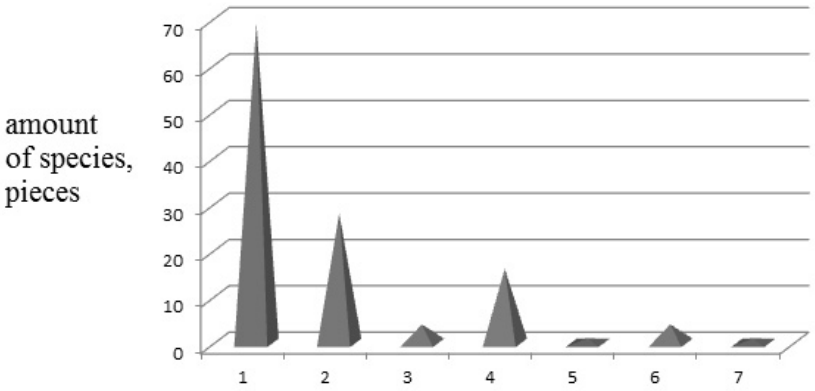



Group of perspectives: 1 — species directly presented in culture, having sorts; 2 — species directly participated in hybridization as sources of genes or as rootstock; 3 — species with close relationship with the introduced in culture; 4 — other useful species of the genus used in gathering and national selection; 5 — all other species of present genus

Figure 2. Spreading of WRCP of Mugodzhary Mountains by groups of perspectives

To the second group belongs 3 species. To the third group are assigned 19 WRCP species (*Rubus saxatile, Urtica dioica, Amygdalus nana, Elytrigia repens, Kochia scoparia* and others). To the forth group are included 4 species (*Lonicera microphyla, Amatanthus albus, Artemisia terrae-albae*). To the fifth group belongs the maximum number of plants — 72 species.

Analysis of life forms showed the following (Fig. 3): herbal perennial plants — 69 species, biennial and annual plants — 28 species, trees — 4 species, bushes — 16 species, shrubs — 1 species, semi-bushes — 4 species, semi-shrubs — 1 species.




Life forms: 1 — perennial, 2 — annual and biennial, 3 — trees, 4 — bushes, 5 — shrubs, 6 — semi-bushes, 7 — semi-shrubs

Figure 3. Spreading of WRCP of Mugodzhary Mountains by life forms

All results of investigation were included in Data Base «BD-PLANT-KZ», seed materials of the most perspective WRCP were included in seed bank and introduction experiment on the territory of Mangyshlak Botanical Garden.

*Conclusion*

Thus, on the territory of floristic region Mugodzhary grows 123 WRCP species from 73 genera and 19 families. The most spreading are the representatives from families *Poaceae*, *Fabaceae, Rosaceae* and *Asteraceae*. Among economically-valuable groups dominated WRCP possessing fodder, food and medicinal properties. Among the life forms are dominated herbal perrenial plants.

Analysis WRCP priority allowed to distribute the plants as follows: to the first group — 25 species; to the second group — 3 species; a third group — 19 species; a fourth group — 4 species; a fifth group — 72 species.

*Acknowledgements*. The present investigation was carried out the theme «The botanical diversity of wild relatives of cultivated plants of Western Kazakhstan as a source of enrichment and conservation of agro-biodiversity gene pool for the implementation of the food program».

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## Мұғаджар флористикалық ауданының мәдени өсімдіктерінің жабайы туыстарын зерттеу

Мақалада Мұғаджар флористикалық ауданының мәдени өсімдіктерінің жабайы туыстарының (МӨЖТ) түр құрамы мен болашағының дәрежесі талданды. Жарияланған деректер мен өздеріміздің далалық зерттеулер мәліметтерін өңдеу нәтижесінде осы флоралық ауданда мәдени өсімдіктерінің жабайы туыстары 19 тұқымдас пен 73 туыстан тұрайтын 123 түрді құрады. МӨЖТ-ның ең көп түр саны *Poaceae* (40 түр), *Fabaceae* (18), *Rosaceae* (14) және *Asteraceae* (10 түр) тұқымдастырында байқалды. Мәдени өсімдіктердің жабайы түрлерінің арасында көптеген азықтық өсімдіктердің санына — 106 түр, екінші орында азық-түлік өсімдіктер — 61, үшінші орында дәрілік өсімдіктерге 37 түр жатады. Балды өсімдіктерінің 24 түрі, техникалық өсімдіктердің — 20, дәрумен өсімдіктердің — 13 және сәндік өсімдіктердің 21 түрі берілген. Өмір сүру формаларының ішінен көпжылдық шөптесін өсімдіктер басым болып келеді. МӨЖТ-нің түрлерін басымдылығына сәйкес талдауда өсімдіктерді келесідей орналастырылды: 1-топқа — 25 түр; 2-топқа — 3; 3-топқа — 19; 4-топқа — 4; 5 топқа — 72 түр. Түрлердің басым саны өмір сүру формасы арасында бір, екі және көпжылдық өсімдіктер қатарына тиесілі.

*Кілт сөздер:* мәдени өсімдіктерінің жабайы туыстары, Мұғаджар флористикалық ауданы, шаруашылық қасиеті, болашағы, флора.

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## Изучение видового состава диких сородичей культурных растений флористического района Мугоджары

В статье проведен анализ видового состава и степени перспективности диких сородичей культурных растений флористического района Мугоджары (Актюбинская область, Казахстан). В результате обработки литературных данных и собственных полевых исследований перечень диких сородичей культурных растений данного флористического района составил 123 вида ДСКР из 73 родов и 19 семейств. Наиболее широко распространенными являются представители сем. *Poaceae* (40 видов), *Fabaceae* (18 видов), *Rosaceae* (14 видов) и *Asteraceae* (10 видов). Среди диких сородичей культурных растений наибольшее число относится к кормовым растениям — 106 видов, вторую позицию занимают пищевые растения — 61 вид, третью позицию — медицинские растения с 37 видами. Медоносные растения представлены 24 видами, технические — 20, витаминные — 13 видами и декоративные растения — 21 видом. Среди жизненных форм доминируют многолетние травянистые растения. Анализ приоритетности ДСКР позволил распределить растения следующим образом: к 1-й группе отнесены 25 видов; ко 2-й — 3 вида; к 3-й — 19 видов; к 4-й — 4 вида и к 5-й группе — 72 вида.

*Ключевые слова:* дикие сородичи культурных растений, Мугоджары, флористический район, хозяйственные свойства, перспективность, флора.

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