

Biological Variety of the Species Included into the Second Edition of the “Red Book” of Especially Protected Natural Territories of Western Region of Azerbaijan

A. A. BAYRAMOVA
Assistant Professor
Ganja State University
Azerbaijan

Abstract:

Azerbaijan takes one of the special places in the world thanks to the biological variety. There one can meet the rich species of flora and fauna. Protection of the rare and endangered animal and plant species is possible thanks to the especially protected natural zones. Some species that spread in the especially protected natural zones (Gey-Gel National Park, Eldar Pines Reservation, Garayazi and Korchay State Natural Reservations) have been included into the second edition of the Azerbaijan” Red Book”. At the result 30 families, 50 genus and 55 species of the especially protected western region have been included into the “Red Book”. There have been organized the constant observation over the population of the species that included into the “Red Book”.

Key words: flora, family, genus, species, Red Book

Azerbaijan takes one of the special places in the world thanks to the biological variety. There one can meet the rich species of flora and fauna. Protection of the rare and endangered animal and plant species is possible thanks to the especially protected natural zones. Some species that spread in the especially protected natural zones (Gey-Gel National Park, Eldar Pines Reservation, Garayazi and Korchay State Natural

Reservations) have been included into the second edition of the Azerbaijan” Red Book”. At the result 30 families, 50 genus and 55 species of the especially protected western region have been included into the “Red Book”. There have been organized the constant observation over the population of the species that included into the “Red Book”.

By the purpose of enlargement of the especially protected natural areas net and efficient use of the natural resources, there have been given the State Natural Reservation Status to the especially protected western regions: the Gey-Gel National Park, the Eldar Pines Reservation, the Korchay Reservation and the Garayazi Reservation. The status was given by the Azerbaijan Republic President’s orders. There have been carried out inventory of the flora when the status of the area changed in the state level. There have been determined 106 families, 467 genus and 1200 species in the Gey-Gel National Park, in the Eldar Pines Reservation, in the Korchay Reservation and in the Garayazi Reservation (3, 4).

300 families, 50 genus and 55 species out of them have been included into the second edition of the Azerbaijan “Red Book” (1).

There have been organized the constant observation over the species included into the second edition of the “Red Book” by the purpose to provide their protection and spreading in the concrete reservation condition.

The constant observation over the spreading has been organized according to the following categories: 1) Species that close to the danger level; 2) Endangered Sensitive species; 3) Those which are under the serious danger level. These categories have been used while compiling the “Red Book”.

There have been given information in the following table. The table is about the species that we meet in the especially protected western region of Azerbaijan and have been included into the second edition of the “Red Book” (2, 3, 4, 5, 6, 8, 10).

A. A. Bayramova- **Biological Variety of the Species Included into the Second Edition of the “Red Book” of Especially Protected Natural Territories of Western Region of Azerbaijan**

Table 1

Fəsilə	Cins	Növ	Mühafizə kateqoriyası
Woodsiaceae (Diels)Herter	<i>Woodsia R.Br.</i>	<i>W.alpina (Bolt.) S.F.Gray</i>	NT
Taxaceae S.F.Gray	<i>Taxus L</i>	<i>T.baccata L.</i>	VUA2c+3c
Pinaceae Adans	<i>Pinus L.</i>	<i>P.kochiana Klotzch</i> <i>P.eldarica Medw.</i>	NT NT
LiliaceaeJuss.	<i>Fritillaria L.</i>	<i>F. caucasica</i> Adams	EN A1c;B1ab(iii)
	<i>Lilium L.</i>	<i>L.ledebourii</i> (Baker) Boiss	EN A2c.
	<i>Tulipa L.</i>	<i>T.eichleri</i> Regel <i>T. schmidtii</i> Fomin.	VUA2c+3c NT
Orchidaceae Juss.	<i>CorallorhizaChatel.</i>	<i>C. trifida</i> Chatel	NT
	<i>Dactylorhiza Neck.ex Nevski</i>	<i>D. flavescens</i> (C.Koch) Holub	NT
	<i>Epipactis Zinn</i>	<i>E. palustris</i> (L.) Crantz	VUB1ab(iii)+2ab (iii).
	<i>Orehis L.</i>	<i>O. purpurea</i> Huds	EN B1ab(i,iii,iv)+2ab(iv)
	<i>Ophrys L.</i>	<i>O.apifera</i> Huds.	VU D2
İridaceae Juss	<i>İris L.</i>	<i>İ.caucasica</i> Stev.in Bieb <i>İ.grossheimii</i> Woronow ex . Grossh. <i>İ.papadoxa</i> Stev. <i>İ.demetri</i> Achv.et Mirzoeva	NT VU 2c +3cd VU D2 VUA2c+3cd
Asphodelaceae Juss.	<i>AsphodelineReichenb</i>	<i>A. prolifera</i> (Bieb.)Kunth	NT
	<i>Eremurus Bieb.</i>	<i>E.spectabilis</i> Bieb.	ENB1ab(i,ii,iii,iv,v)+2ab(İ,İİ,İİİ,İV,V)
Hyacinthaceae Batsch.	<i>Ornithogalum L.</i>	<i>O. ponticum</i> Zahar.	VUB1ab (iii) +2ab(iii)
	<i>Scilla L.</i>	<i>S. caucasica</i> Mischz.	EN B2ab(i,ii,iii).
Amaryllidaceae J.St.-Hil.	<i>Galanthus L.</i>	<i>G. lagodechianus</i> Kem.-Nath.	ENB1ab(i,ii,v)c(i,ii,iii)+2b(i)c(ii,v).
Ranunculaceae Juss.	<i>Aquilegia L.</i>	<i>A.olympica</i> Boiss.	NT
	<i>Aconitum L.</i>	<i>A.nasutum</i> Fisch.ex Reichenb.	EN A2c+3c
	<i>Pulsatilla Hill</i>	<i>P.violaceae</i> Rupr.	VUA2c+3c
PapaveraceaeJuss.	<i>Corydalis Medic.</i>	<i>C.alpestris</i> C.A.Mey.	VU D2
Caryophyllaceae Juss.	<i>Dianthus L.</i>	<i>D.subulosus</i> FreyneConrath	NT
	<i>Paronychia Hill</i>	<i>P. kurdica</i> Boiss	NT
Plumbaginaceae Juss.	<i>AcantholimonBoiss.</i>	<i>A.tenuiflorum</i> Boiss.	EN B1ab(iii, v)+2ab(iii,v)
EbenaceaeGuerke.	<i>Diospyros L.</i>	<i>D.lotus</i> L.	VU D2
Primulaceae Vent.	<i>Cyclamen L.</i>	<i>C.elegans</i> Boiss. et Buhse	CRB2ab (i,ii,iii.)
	<i>Primula L.</i>	<i>P.algida</i> Adams <i>P.ruprechtii</i> Kusn.	VU A2c+3cVU A2c+3c.

A. A. Bayramova- **Biological Variety of the Species Included into the Second Edition of the “Red Book” of Especially Protected Natural Territories of Western Region of Azerbaijan**

<i>Violaceae Batsch</i>	<i>Viola L.</i>	<i>V. caucasica</i> Kolenati	EN B2ab (i,ii,iv)
<i>Salicaceae Mirb.</i>	<i>Salix L.- Söyüd</i>	<i>S.pentyandroides</i> A.Skvorts.	VU D2
<i>Ulmaceae Mirb.</i>	<i>Celtis L.</i>	<i>C. caucasica</i> Willd.	NT
<i>Saxifragaceae Juss.</i>	<i>Saxifraga L.</i>	<i>S.adenophora</i> C.Koch	ENB2ab(i,ii,iv)
<i>Rosaceae Juss.</i>	<i>Alchemilla L.</i>	<i>A.grossheimii</i> Juz.	NT
	<i>Cotoneaster Medik.</i>	<i>C.saxatilis</i> Pojark.	ENB2ab (i,ii,iv,v)
	<i>Pyrus L.</i>	<i>P.eldarica</i> Grossh.	CR A2abc;C1
	<i>Rosa L.</i>	<i>R.pulverulenta</i> Bieb.(= <i>R.azerbaidzhanica</i> <i>Novopokr.et Rzazade</i>) <i>R.nizami</i> Sosn.	EN B2ab (i,ii,iv,v) NT
	<i>Sorbus L.</i>	<i>S.aucuparia</i> L.(= <i>S.caucasigena</i> Kom.ex <i>Gatsch</i>)	VUA2c+3cd.
<i>Punicaceae Horan.</i>	<i>Punica L.</i>	<i>P. granatum</i> L.	VUA1ab(i,ii,iii,v)+2ab (i,ii,iii,v)
<i>Aceraceae Juss.</i>	<i>Acer L.</i>	<i>A.trautvetteri</i> Medw.-	VU D2
<i>Anacardiaceae Lindl.</i>	<i>Pistacia L.</i>	<i>P. mutica</i> Fisch. et C.A.Mey.	NT
	<i>Rhus L.</i>	<i>R.coriaria</i> L.	VU A2c+3c
<i>Parnassiaceae Martinov</i>	<i>Parnassia L.</i>	<i>P.palustris</i> L.	NT
<i>Apiaceae Lindl (=Umbelliferae Juss.)</i>	<i>Astrantia L.</i>	<i>A. maxima</i> Pall.	NT
	<i>Carum L.</i>	<i>C. caucasicum</i> (Bieb.) Boiss	NT
	<i>Ferula L.</i>	<i>F.szowitsiana</i> DC.	EN B1abc (i,ii,iv)
<i>Campanulaceae Juss.</i>	<i>Asyneuma Griseb. et Schenk.</i>	<i>A.campanuloides</i> (Bieb.ex Sims.) Bornm.	NT
<i>Asteraceae Dumort (=Compositae (Vaill.) Adans.)</i>	<i>Telekia Baumg.</i>	<i>T.speciosa</i>	VUA2c+3cd;B2b(i,ii)c(i,ii)
<i>Solanaceae Juss.</i>	<i>Atropa L.</i>	<i>A.caucasica</i> Kreyer.	VU B1b(i,ii)
<i>Scrophulariaceae Juss.</i>	<i>Verbascum L.</i>	<i>V.phlomoides</i> L.	NT
	<i>Veronica L.</i>	<i>V.minuta</i> C. A. Mey.	NT
<i>Globulariaceae DC.</i>	<i>Globularia L.</i>	<i>G.vulgaris</i> L.	VU D2

Observation over the spreading of some rare species has been carried out in the seno-spreading level. The seno-spreading have been investigated in the ontogenetic level. The investigation process has been carried out in the following areas and over the following species:

In the Gey-Gel National Park (characteristic to mezophit fitosenoses)- *Orchispurpurea* Huds - of the *Orchidaceae* Juss species.

In the Korchay State Natural Reservation (cserofit frigana type)- *Pistaciamutica* Fisch.et C.A.Mey-of *Anacardiaceae* Lindl species.

In the Eldar Pines State Natural Reservation-*Tulipa eichleri* Regel-of the *Liliaceae* Luss species (2, 4, 8, 9).

It has been found out that mostly spreading of the investigated species is in the normal type and has gained large adaptation chances thanks to the area and climate they grow. At the result of the anthropogenic and climate influence the spreading gains the regressive and invasion character.

The ontogenesis of the species are divided into 4 age periods (latent period, pre-generative period, generative period, post-generative period) and 9 age stages (sprouts, yuvenil, immature, virginal, young generative, mid-age generative stage, old age generative stage, sub-senil and senil). There has not been met immature age period in the severe natural condition of the Eldar Pines Reservation and Korchay State Natural Reservation.

In the Korchay Reservation and the Garayazi State Natural Reservations the most important differentiating feature of the investigated species is having the long life period and the plants' keeping their generative state. These adaptations have been gained to protect the plants in the favorable climate. But it cannot be sufficient to protect the plants in the severe draught condition, when there is severe water deficiency. According to the degree of the water deficiency, in order to prevent water waste there occur additional morphological and physiological changes within these species.

At the result of the carried out investigations we came to the conclusion that the constant observation over these plants

is the real form of protection of the species that are included into the “Red Book”.

REFERENCES

1. “Red book” of the Azerbaijan Republic-Rare and Endangered Plant and Mushroom Species, “Sharg-Garb” Publishing House, Baku, 2013, 676 pages.
2. Bayramova .A.A. Floral Bio-variety of the Especially Protected Areas (Gey-Gel, Garayazy, Eldar, Korchay Reservations) and Protection of the Geno-fund. ANSA Institute of Botany works. XXX volume. Baku, Elm, 2010, pages 146-148.
3. Bayramova A.A. Flora of the Especially Protected Western Natural Regions of Azerbaijan. ANSA News. Department of Biological Sciences. Baku, 2012, №-2. Pages 165-172.
4. Bayramova A.A. Floral Bio-variety of the Especially Protected Western Natural Regions of Azerbaijan. Baku, Elm, 2013. 327 pages.
5. Askerov A.M. Flowering Plants of Azerbaijan. Summary of the Azerbaijan Flora. I volume. Baku. Elm. 2005; II volume Baku. Elm. 2006; III volume. Baku. Elm. 2008.
6. Askerov A. M. Summary of the Azerbaijan Flora. Baku. Elm. 2011. Page 202.
7. Eli-zade V. Alekberov I. ANSA News. (Biology and Medical Sciences). Volume 68. № 3. Pages 117-125.(2013).
8. V. S. Novruzov, Z. M. Ismayilova. Bayramova A.A. Floral Bio-variety and Protection of the Gene-fund of the Especially Protected Natural Areas in the Western Region of Azerbaijan (Gey-Gel, Eldar Pines, Garayazi

- Reservations). Scientific Works of the Azerbaijan Botanical Society. Baku. 2010. №1. Pages 189-194.
9. Novruzov V.S. Bayramova A.A. Monitoring of the Plant Cover in the Especially Protected Natural Areas. (Problems, Main Conceptions, Theories). Actual Problems of the Biochemical Problems. Materials of II International Conference. Ganja. 2011. Pages 5-10.
 10. Summary of the Caucasian Flora. SPB University. I volume. 2003; II volume 2006; III volume 2008.