COUNCIL OF EUROPE CONSEIL DE L'EUROPE

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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

GROUP OF SPECIALISTS –EUROPEAN DIPLOMA OF PROTECTED AREAS
26 MARCH 2013, STRASBOURG
ROOM G04, AGORA

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APPLICATION
KARADAG NATURE RESERVE
UKRAINE

Document prepared by
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Ministry of Ecology and Natural Resources of Ukraine

Logo European Diploma	**Council of Europe** **European Diploma** **Information form for Candidate Sites**

This form is also available on CD

Site Code (to be given by the Council of Europe)								

1. SITE IDENTIFICATION

1.1. SITE NAME

Karadag Nature Reserve - Karadagskyi pryrodnyi zapovidnyk

1.2. COUNTRY	**Ukraine**							
1.3. DATE CANDIDATURE								
1.4. SITE INFORMATION COMPILATION DATE								
	2	**0**	**1**	**2**	**1**	**0**	**1**	**0**

1.5. ADDRESSES: Administrative Authorities

National Authority	Regional Authority	Local Authority
Name: **Eduard Stavytskyi, Minister of Ecology and Natural Resources of Ukraine** Address: **35 Uritskogo Str., c. Kyiv, 03035, Ukraine** Tel.: **+380 44 2063301** Fax: **+380 44 2063301** e-mail: secr@menr.gov.ua	Name: **Dmitrii Tatarov, Chair of the Republic Committee of Environmental Protection of Autonomous Republic of Crimea** Address: **198 Kechkemetskaya Str., c. Simferopol, 95038, AR of Crimea, Ukraine** Tel.: **+380 652 254463**	Name: **Oleksandr Bartenev, Chair of the Feodosia Town Council** Address: **4 Zemska Str., c. Feodosia, AR of Crimea, Ukraine** Tel.: +380 06562 21152 Fax: +3806562 35214 e-mail: feo_gor@ukr.net

	Fax: **+380 652 254463** e-mail: krimpriroda@home.cris.net	

1.6. ADDRESSES: Site Authorities

Site Manager	Site Information Centre	Council of Europe Contact
Name: **Alla Morozova, Director, Karadag Nature Reserve of the National Academy of Sciences (NAS) of Ukraine** Address: **Kurortne Stlm., c. Feodosia, 98188, AR of Crimea, Ukraine** Tel.: **+380 6562 26 212** Fax: **+380 6562 26 212** e-mail: karadag@ukrpost.ua www.zapovednik-karadag.com	Name: **Larisa Znamenskaya, Chief Engineer, Karadag Nature Reserve of the NAS of Ukraine** Address: **Kurortne Stlm., c. Feodosia, 98188, AR of Crimea, Ukraine** Tel.: +380 06562 26512 Fax: +3806562 26212 e-mail: karadag@ukrpost.ua	Name: Address: Tel. Fax. E-mail

1.7 SUMMARY DESCRIPTION

Karadag Nature Reserve is a nature protective and scientific institution that was created in 1979 on the base of the Karadag Biological Research Station (founded in 1914) with the aim of maintenance of unique natural mineralogical complex and conservation of rare flora and fauna of terrestrial and marine off-shore ecosystems located at the area of the Karadag paleo-volcano of Jurassic period. About 200 species and over 10 natural habitats of European importance, geological evidences of volcanic activity, historical and archeological monuments are under protection within the steppe, drought-forest, rocky-mountain, off-shore and marine natural complexes of the Karadag Nature Reserve. The high-level system of the ecological monitoring, scientific and ecological educational activities take place.

1.8. EUROPEAN INTEREST JUSTIFYING THE CANDIDATURE

European interest is based on the species of flora and fauna, that are protected within the Site according to the international obligations of Ukraine, and included into the Appendixes I and II of Bern and Bonn Conventions, and CITES as well as included into the European Red List of Globally Threatened Animals and Plants. Natural habitats that need to be protected according to the Resolution № 4 (1996) of the Permanent Committee of Bern Convention are also here.

1.9. SELECTION METHODOLOGY

In the basis of selection methodology there are lists of rare and endangered species of plants and animals that need prtection according to the Bern Convention (Appendixes I and II) and Bonn Convention (Appendixes I and II), as well as endangered natural environments that need special measures for their concervation according to the Resolution № 4 (1996) of the Permanent Committee of Bern Convention. Also there are landscapes that present special aesthetic value within the Site which are the example of very attractive (for visiting and observation) nature.

1.10. MAIN AIM OR MOTIVATION

The Ministry of Ecology and Natural Resources of Ukraine comes to CE with request to award the European Diploma to the Karadag Nature Reserve, one of the most beautiful natural sites in Europe for prominent merits in field of maintenance of biological and landscape diversity of its territory that supports a lot of rare and endangered species of flora and fauna as well as rare natural environments in Europe.

1.11. DATES *(to be filled in by the Council of Europe)*

DATE OF FIRST EXAMINATION DATE OF EXPERT VISIT

Y	Y	Y	Y	M	M	D	D		Y	Y	Y	Y	M	M	D	D

DATE OF SECOND EXAMINATION DATE OF AWARD

Y	Y	Y	Y	M	M	D	D		Y	Y	Y	Y	M	M	D	D

2. <u>SITE LOCATION</u>

2.1. SITE CENTRE LOCATION

LONGITUDE LATITUDE

	E	3	5	°	1	3	‘	2	6	“	N	4	4	°	5	5	‘	5	2	“

W/E (Greenwich)

2.2. AREA (ha) 2.3. SITE LENGTH (km)

Total Area		3	8	3	5	,	1	0					,				
sea aquatorium		1	7	4	9	,	1	0									
Core		2	7	8	4	,	4	0									
sea aquatorium			7	5	7	,	0	0									
Buffer			9	6	0	,	9	0									
sea aquatorium			9	4	0	,	0	0									
Transition				8	9	,	8	0									
sea aquatorium				5	2	,	1	0									

2.4. ALTITUDE (m)

MINIMUM MAXIMUM MEAN

			0			5	7	6			2	8	8

2.5. ADMINISTRATIVE REGION

REGION NAME % COVER

Territory of Shchebetovka Settlement Council of Feodosia Town Council of Autonomous Republic of Crimea	5	4	,	6
Sea aquatorium – territorial waters of Ukraine	4	5	,	6

3. <u>NATURAL HERITAGE</u>

3.1 GENERAL ABIOTIC DESCRIPTION (Geomorphology, geology and hydrogeology)

The Karadag mountain-rocky complex was formed at the place of eruptions of volcanoes in Jurassic period over 150 million years ago and characterized by the wide spectrum of volcanic rocks such as basalts and rhyolites including alkaline basalts, trachytes of dike series and wide diversity of secondary minerals, in particular zeolites, especially in the zones of display of gold containing sulfide mineralization. These formations belong to tholeiitic and lime-alkaline series of differentiation. Today relief of terrestrial part of the Site is characterized by considerable separation. Newest tectonic motions, lithologic heterogeneity of rocky formations, geological structures, naked sub-volcanic and other geological formations, and various exogenous forms are located here. Separate mountain ridges, depressions, gullies and gorges, steep slopes, valleys and terraces take place. There are such forms of relief of marine origin at coast: bays, cliffs, breakers niches, abrasive grottoes, outliers (rocks at-sea such as Golden Gate and Stryzheva) and beaches. The sea-bottom is covered by rocks, boulders, pebble (at the shore), sand and silt (farther from a shore).
A climate is droughty, with hot summer and mild soft winter. An average annual

temperature is 12,1°C, maximal – +40 °C, minimal – -24°C. Amount of precipitations is 388 mm per year.

3.2. HABITATS

Basic groups of natural environments: territory covered with forests, bushes and sparse growth of trees (76%) including deciduous forests – 32.9% of the total area of site, dry steppes (8.9%), rock associated communities and stony mineral deposits (11.1%), marine aquatoriums (45.6%; one fifth part of bottom is covered by a marine vegetation); other lands covered with settlements, homestead lands, administrative and working apartments, roads, beach etc. There are rare types of natural environments, that is under protection in accordance with Resolution N 4 (1996) of the Standing Committee of the Bern Convention: 11.25 Sublittoral organogenic concretions; 11.26 Sublittoral cave communities; 11.27 Soft sediment littoral communities; 11.3 Sea-grass meadows; 12.7 Sea-caves; 17.3 Sea kale communities; 31.7 Hedgehog-heaths; 33 Phrygana; 34.5. Mediterranean xeric grasslands; 34.9 Continental steppes; 41.2. Oak-hornbeam forests; 41.7 Thermophilous and supra-Mediterranean oak woods; 42.A Western Palaearctic cypress, juniper and yew forests

3.3. FLORA

Motley-grass and feather-grass cereal steppes undersized forests with domination of Carpinus orientalis, Quércus pubéscens and Q. pétraea, Pistacia atlantica subsp. mutica, Fráxinus excélsior and Pinus nigra subsp. pallasiana, obducing lichens on stones and rocks, and cover of Cystosira species at the zone of marine shelf prevail in composition of vegetation cover. Over 3000 species of flora are registered here, including 984 species of alga, 512 – fungies, 345 – lichens, 82 – bryophytess and 1176 – higher vascular plants; 131 species included into the Red Data Book of Ukraine are among them as well as 34 – into European Red List, 22 – into the IUCN Red List, 23 – into the CITES, 7 – under protection of Bern Convention (Appendix I), 12 – into the Red Data Book of the Black Sea (the lists of species are presented into the appendix to the nomination). 25 species are endemics. There are populations (from 40 to 5000 specimens) of 22 orchid species. Following species are included into the Appendix 1 of the Bern Convention: *Onosma polyphylla* – it is dissipated on stony slopes, total number up to 3 thousand specimens; *Crambe koktebelica* – there are 3 localities at a coast, total number over 100 specimens, *Ophris oestrifera* – 4 localities at forest glades and edges, total number 120 specimens; *Paeonia tenuifolia*— 5 localities at steppe sites, total number over 5 thousand specimens; *Himantoglossum caprinum* - 14 localities at steppe, forest sites and edges, total number over 8 thousand specimens; *Nitraria schoberi* – singles at seashore; *Zostera marina* – separate sites at the western part of the Koktebel Bay, total area up to 5 ha.
Annex 1. Endangered plant species

3.4. FAUNA

Over 5500 animal species including about 400 vertebrates (32 – mammals, 236 – birds, 4 – amphibians, and 8 – reptiles) dwell at the Karadag Nature Reserve. 206 species are included into the Red Data Book of Ukraine, 34 – into European Red List, 44 – into the IUCN Red List, 54 – into the CITES, 63 – into the Red Data Book of the Black Sea; 88 species are under protection of Bonn Convention (Appendixes I and II), and 206 – under protection of Bern Convention (Appendix II) (the lists of species are presented into the appendix to the nomination). It`s important that at such species as *Mediodactylus kostchyi, Zamenis situla, Hierophis caspius* get good conditions for survive. Population of *Phalacocrocas aristotelis* is revived here (from 4 couples in past to 205 today). Following birds of prey permanently build their nests here: *Falco peregrinus, Falco cherrug, Circaetus gallicus, Buteo rufinus, Asio otus, Asio flammeus, Strix aluco, Athene noctua, Otus scops*.

Annex 2. Endangered animal species

3.5. LANDSCAPE

Mountain rocky, flat steppe, off-shore and marine landscape facies are combined here. Steep rocky slopes with rare ashen-juniper-oak and feather-motley-grass communities and erosive low-mountain with slope cavins with ashen-hornbeam-oak undersized jungles and narrow valleys with alluvial-diluvial sedimentations and hornbeam-oak communities prevail on land. Narrow stony seashore headily changes into steep submarine stony slopes with the jungles of *Cystosira spp*. There is a silty bottom without rooty vegetation at the depths of 10-30 m.

4. CULTURAL HERITAGE AND SOCIO-ECONOMIC CONTEXT

4.1 CULTURAL HERITAGE

Numerous and various archaeological finds, that are exposed at the Feodosia (Crimea, Ukraine) Museum of Antiquity, Institute of Archaeology of the National Academy of Sciences of Ukraine (Kiev, Ukraine) and its branch in Simferopol (Autonomous Republic of Crimea, Ukraine), specify location within the Site of nomad stands-camps, grave-diggers, patrol points, pastures etc. from Paleolith to late Middle ages, in particular: Lithoidal age (early paleolith), Mousterian epoch (150/100-40/35 thousand years ago), late Paleolith (35/30-10 thousand years ago), epoch of bronze (middle and second half of II Millennium B.C.), 3 cultures of early iron: Cimmerian (IX-VII centuries B.C.), kyzyl-kobinian (VII - IV centuries B.C.) and Tauric (VII - III centuries B.C.), antic epoch, epoch of middle ages (VII - XVII centuries). During archaeological investigations within the Tepsen` settlement (VIII- the first half of X century) 11 necropolises, 44 remainders of inhabited and economic constructions, and 6 Orthodox temples are dug out.

4.2 SOCIO-ECONOMIC CONTEXT

Karadag Nature Reserve cooperates with local authorities (plans and programs of regional development), scientific, educational and public environmental organizations, tour operators, A.S. Green Museum, Feodosia Museum of Antiquity; it conducts environmental educational activity at local schools of Shchebetovka, Koktebel`, and Krasnokamenka settlements, and jointly with Feodosia Municipal Center of Environmental Naturalistic Activity of Young Studying People "Intellect". Dolphynarium, Museum of History and Nature of Karadag, scientific library, 2 ecological trails (terrestrial and marine) operate at the territory of reserve. Number of visitors (mainly in May-September) is up to 20 thousand persons per year.

5. EDUCATIONAL AND SCIENTIFIC INTEREST

Karadag Nature Reserve was created in 1979 on a base of the Karadag Biological Research Station that was founded in 1914 and later became the Branch of the Institute of Biology of Southern Seas of the Academy of Sciences of the Ukrainian Soviet Social Republic. The reserve is state research institution under umbrella of the National Academy of Sciences of Ukraine. According to the Statute of the Karadag Nature Reserve, that it is ratified by the order of the NAS of Ukraine from 11.06.2008 № 362, it conducts complex fundamental and applied researches for study of flora, fauna and off-shore ecosystems; it develops scientific based nature protection measures concerning environmental protection and sustainable development at regional level and creation of new protected territories in Ukraine, carries out ecological expertise. Annually the reserve carries out monitoring researches and develops Chronicle of Nature according the set form. Students of biological, geographical, geological and paleontological departments of many universities of Ukraine and abroad have scientific practice at the reserve.

6. SITE DESCRIPTION

6.1. VULNERABILITY

The biggest threat for natural complexes of the Karadag is made by vacationers in May-September, especially staying at the territories that aew close to Reserve (the incidents of illegal penetration to the territory were detected as well as poaching and fires). The special threat for the marine plant and animal communities, together with "traditional" contamination of the sea, makes alien species of animals, in particular Gastropod *Rapana thomasiana*, and comb jelly *Mnemiopsis leidyi*. Erosive processes during heavy shower (quite rare), and under activity of the sea take place as natural phenomena.

6.2. PROTECTION STATUS

The Karadag Nature Reserve is a nature protection and research institution of national value, and its territory and aquatorium are subject to the severe protection under the Law of Ukraine "On the Protected Areas of Ukraine"(1992).

The reserve is also important territory for maintenance of birds (Important Bird Area, IBA No 099), it includes Ramsar Site # 1394 "Aquatic-cliff Complex of Karadag" (224 hectares), and it is perspective site for the Emerald Network of Europe (Bern Convention).

6.3. OWNERSHIP

Ownership of land of the Karadag Nature Reserve is state; land is given to the administration of reserve in the permanent use in accordance with the State Act on Right for Land Possessing (terrestrial part). Only 20.9 ha within the archaeological object – remainders of Middle-Age settlement of Tepsen` (part of protective (buffer) zone of the reserve) is in community property of the Koktebel` Settlement Council of Feodosia Town Council of Autonomous Republic of Crimea.

6.4. DOCUMENTATION

Resolution of Council of Ministers of Ukrainian SSR from 09.08.1979 #386 "About organization of the Karadag Nature Reserve" - copy of the Resolution in Ukrainian and its translation into English are enclosed.

Regulations on the Karadag Nature Reserve (1998) *approved by the Ministry for Environmental Protection and Nuclear Safety of Ukraine of 10.02.1998 – in Ukrainian and English.*

Act of Concordance of Total Area of the Karadag Nature Reserve of the National Academy of Sciences of Ukraine of 10.09.2004 (Land Management Organization is set the general area of the reserve as 2874.17 ha and its Protective Zone as 960.9 ha) - copy of the Act in Ukrainian is enclosed.

Design of Organization of Territory and Protection of Natural Complexes *(management plan)* of the Karadag Nature Reserve (210 pages) ratified by the Order of the Ministry of Environmental Protection of Ukraine from 14.02.2006 № 59 - copy of Contents of the Design translated into English and Ukrainian version on CD are enclosed.

Statute of the Karadag Nature Reserve of the National Academy of Sciences of Ukraine ratified by the Order of the NAofS of Ukraine of 11.06.2008 № 362 - in Ukrainian.

Articles (in English) about the values of the Karadag Nature Reserve are enclosed.

7. SITE MANAGEMENT

7.1. MANAGEMENT PLANS

The Karadag Nature Reserve carries out its activity according to Bylaw of the Karadag Nature Reserve (1998) and Design of Organization of Territory and Protection of Natural Complexes (Management Plan) of the Karadag Nature Reserve (2005) as well as plans of activity according to Statute of the Reserve (2008) ratified by the NAS of Ukraine – see

documents.

7.2. BUDGET AND PERSONEL

In 2011 the budget of the Karadag Nature Reserve reachs about 500 thousand Euro (5,014.7 thousand UAH), including 60 thousand Euro(601,4 thousand UAH) which reserve earned because of the activity of dolphinarium and Museum of History and Nature of Karadag as well as visits of 2 ecological trails (by dry land and marine). 110 persons are employed at the administration of the reserve; among them are: 19 candidates of sciences (equiv. Ph.D.). Following units are in the structure of the reserve: state security service, department of the environmental education and scientific information, research laboratories of botany, zoology, marine mammals, biochemistry and physiology, algae and microbiota as well as station of the background environmental monitoring. Also there is the Museum of History and Nature of Karadag, scientific library, dolphinarium. Scientific and technical council acts at the reserve.

8. MAPS OF THE SITE

• Physical maps:

A. Location of the Karadag Nature Reserve at the territory of Ukraine.

B. Map (scheme) of the Karadag Nature Reserve with functional zones

• Map of designated sites described in 6.2.

C. Map of Ramsar site "Aquatic-cliff Complex of Karadag"

D. Map of potential Emerald site "Karadag Nature Reserve"

• Aerial photograph(s) included:

E. Google image of the Karadag Nature Reserve

since 2010.04.08			
	yes		no

NUMBER AREA SUBJECT COPYRIGHT DATE

9. SLIDES

NUMBER PLACE SUBJECT COPYRIGHT DATE

Landscapes

NUMBER		PLACE		SUBJECT		COPYRIGHT		DATE
1		Karadag Mountain		Beregovoy mountain ridge, Svyataya mountain		L.V.Znamenskaya		05.02. 2008
2		Karadag Mountain		Khoba-Tepe mountain ridge		L.V.Znamenskaya		06.04. 2008
3		Karadag Mountain		Cliff 'Ivan-Razboynik' (Ivan the Robber)		L.V.Znamenskaya		12.20. 2007
4		Karadag Mountain		Khoba-Tepe mountain ridge		L.V.Znamenskaya		05.24. 2009
5		Karadag Mountain		Karagach mountain ridge		L.V.Znamenskaya		05.30. 2010
6		Karadag Mountain		Karagach mountain ridge		L.V.Znamenskaya		02.03. 2012
7		Karadag Mountain		Erosion remainders at the Khoba-Tepe mountain ridge		L.V.Znamenskaya		05.24. 2009
8		Karadag Mountain		Karagach mountain ridge		L.V.Znamenskaya		05.27. 2009
9		Karadag Mountain		Svyataya mountain		L.V.Znamenskaya		07.15. 2011
10		Karadag Mountain		Cliffs at the Khoba-Tepe mountain ridge		L.V.Znamenskaya		09.20. 2007
11		Karadag Mountain		Cliff 'Devil's Finger'		L.V.Znamenskaya		05.24. 2009
12		Karadag Mountain		Syuryu-Kaya mountain ridge		L.V.Znamenskaya		01.24. 2009
13		Karadag Mountain		Syuryu-Kaya mountain ridge		L.V.Znamenskaya		01.24. 2010
14		Karadag Mountain		Cliff 'Devil's Fire-place'		L.V.Znamenskaya		09.20. 2007
15		Karadag Mountain		Cliff 'Ivan-Razboynik'		L.V.Znamenskaya		05.22. 2011
16		Karadag Mountain		Karadag valley		L.V.Znamenskaya		10.06. 2007
17		Karadag Mountain		Cliff 'Zolotye Vorota' (Golden Gate)		L.V.Znamenskaya		06.12. 2009

Geological phenomena

NUMBER		PLACE		SUBJECT		COPYRIGHT		DATE
1		Karadag area. Cliff 'Ivan-Razboynik' (Ivan		Sub-volcanic formation of andesite basalt		L.V.Znamenskaya		06.19. 2009

		the Robber)						
2		Karadag area. Pogranichnaya Bay		Sub-volcanic formation of andesite basalt		L.V.Znamenskaya		05.22. 2011
3		Karadag area. Karagach mountain ridge		Tuff remainders		L.V.Znamenskaya		04.20. 2007
4		Karadag area. Cliff 'Ivan-Razboynik' and Putsolanova Bay		Composite sub-volcanic intrusion		L.V.Znamenskaya		09.20. 2007
5		Karadag area. Cliff 'Devil's Fire-place'		Dome-shaped intrusion		L.V.Znamenskaya		06.28. 2007
6		Karadag area. Magnitny Mountain Ridge		Cliff remainder 'Sphinx'		L.V.Znamenskaya		
7		Karadag area. Khoba-Tepe Mountain Ridge		Remainders and dykes of paleo-volcanic crater		L.V.Znamenskaya		05.22. 2010

Flora

NUMBER		PLACE		SUBJECT		COPYRIGHT		DATE
01		Karadag area. Northern slope. Ikalmy-Kaya mountain		*Paeonia tenuifolia L.*		L.P.Mironova		05.07. 2003
02		Karadag area. Eastern slope of the Svyataya Mountain		*Paeonia daurica Andr. /P.triternata Pall.ex DC./*		L.P.Mironova		05.07. 2004
03		Karadag area. Khoba-Tepe mountain ridge		*Alyssum obtusifolium Stev.ex DC*		L.P.Mironova		05.07. 2004
04		Karadag area. Beregovoy mountain ridge		*Anthemis tranzscheliana Fed.* and *Alyssum obtusifolium Stev.ex DC.*		L.P.Mironova		05.09. 2004
05		Karadag area. Karagach mountain ridge		*Stipa pulcherrima C.Koch*		L.P.Mironova		05.16. 2008
06		Karadag area. Karagach mountain ridge		*Anthemis austriaca Jacq.*		L.P.Mironova		05.24. 2006
07		Karadag area.		*Ceractium*		L.P.Mironova		05.26. 2000

		Magnitny mountain ridge		*biebersteinii DC)*				
08		Karadag area. Shore		*Glaucium flavum Crantz*		A.V.Mironov		05.26. 2004
09		Nothern part of the Karadag mountain		*Dictamnus gymnostylis Stev.*		L.P.Mironova		05.23. 2005
10		Karadag area. Balaly-kaya mountain ridge		*Vicia cracca L.*		L.P.Mironova		06.09. 2006
11		Karadag area. Besh-Tash valley		*Himanthoglossum caprinum (Bieb.) C.Koch*		L.P.Mironova		06.18. 2004
12		Karadag area. Magnitny ridge		*Achillea nobilis L., Dianthus capitatus Balb.ex DC., Galium verum L.*		L.P.Mironova		07.06. 2004
13		Karadag area. Beregovoy mountain ridge		*Sedum acre L., S. hispanicum L., Paronychia cephalotes (Bieb.) Bess.*		L.P.Mironova		06.18. 2004
14		Karadag area. Khoba-Tepe mountain ridge		*Alcea taurica Iljin /A.rugosa Alef.p.p./)* – endemic species of Crimea		L.P.Mironova		07.09. 2004
15		Karadag area. Svyataya mountain		*Cotinus coggygria Scop.*		L.P.Mironova		11.01. 2008
16		Karadag area. Site ‘Monastyrchik’		*Orchis simia Lam.*		L.P.Mironova		04.26. 2005
17		Karadag area. Svyataya mountain		*Epipactis atrorubens (Hoffm.ex Bernh.) Schult.*		L.P.Mironova		06.19. 2006
18		Karadag area. Legener mountain		*Cephalanthera damasonium (Mill.) Druce*		L.P.Mironova		05.21. 2007
19		Nothern part of the Karadag mountain		*Orchis punctulata Stev.ex Lindl.*		L.P.Mironova		05.14. 2010
20		Karadag area. Besh-Tash valley		*Ophrys oestrifera Bieb.*		L.P.Mironova		05.18. 2007

Birds

NUMBER		PLACE		SUBJECT		COPYRIGHT		DATE

1		Karadag Mountain		*Phalacrocorax aristotelis*		M.M.Beskaravayny		02.09. 2009
2		Karadag Mountain		*Netta rufina*		M.M.Beskaravayny		01.01. 2009
3		Karadag Mountain		*Buteo rufinus*		M.M.Beskaravayny		01.30. 2010
4		Karadag Mountain		*Falco peregrinus*		M.M.Beskaravayny		05.03. 2008
5		Karadag Mountain		*Himantopus himantopus*		M.M.Beskaravayny		06.16. 2011
6		Karadag Mountain		*Caprimulgus europaeus*		M.M.Beskaravayny		05.31. 2009
7		Karadag Mountain		*Emberiza melanocephala*		M.M.Beskaravayny		05.09. 2008

Mammals

NUMBER		PLACE		SUBJECT		COPYRIGHT		DATE
1		Karadag Mountain		*Capreolus capreolus*		M.M.Beskara vayny		05.15. 2009
2		Karadag Mountain		*Delphinus delphis*		O.V.Gladilina		09.08. 2010
3		Karadag Mountain		*Pipistrellus pipistrellus*		M.M.Beskara vayny		04.02. 2003
4		Karadag Mountain		*Pipistrellus kühlii*		M.M.Beskara vayny		09.17. 2003
5		Karadag Mountain		*Rhinolophus hipposideros*		M.M.Beskara vayny		10.19. 2007
6		Karadag Mountain		*Sciurus vulgaris exalbidus*		M.M.Beskara vayny		10.14. 2009

Reptiles

NUMBER		PLACE		SUBJECT		COPYRIGHT		DATE
1		Karadag Mountain		*Mediodactylus kotschyi*		M.M.Beskara vayny		10.22. 2003
2		Karadag Mountain		*Hyla orientalis*		M.M.Beskara vayny		07.01. 2003
3		Karadag Mountain		*Pelobates vespertinus*		M.M.Beskara vayny		03.25. 2004
4		Karadag Mountain		*Darevskia lindholmi*		M.M.Beskara vayny		02.08. 2007
5		Karadag Mountain		*Dolichophis caspius*		M.M.Beskara vayny		04.13. 2006
6		Karadag Mountain		*Zamenis situla*		M.M.Beskara vayny		06.03.2005

Annex 1. Endangered plant species

Groups, Species	Bern	CITES	IUCN	ERL	RDBU	BCRDB
Pteridophyta						
Notholaena marantae (L.) Desv.					+	
Angiospermophyta						
Acer stevenii Pojark.				+		
Adonis vernalis L.			+		+	
Anacamptis morio (L.) R.M.Bateman Pridgeon et M.B.Chassei		+			+	
Anacamptis picta (Loisel.) R.M.Bateman		+			+	
Anacamptis pyramidalis (L.) Rich.		+			+	
Anthemis sterilis Stev.			+	+		
Anthemis tranzscheliana Fed.				+		
Arum albispathum Stev. ex Ledeb.					+	
Asparagus litoralis Stev.				+		
Astracantha arnacantha (M.Bieb.)Podlech.			+	+	+	
Astragalus glaucus M.Bieb.					+	
Astragalus ponticus Pall.					+	
Astragalus reduncus Pall.			+	+	+	
Astragalus similis Boriss.				+	+	
Astragalus suprapilosus Gontsch.				+		
Astragalus testiculatus Pall.					+	
Astrodaucus littoralis (Bieb.) Drude					+	+
Atraphaxis replicata Lam.					+	
Bupleurum tenuissimum L.					+	
Carex liparocarpos Gaud.					+	
Centaurea caprina Steven					+	
Centaurea sarandinakiae N.B. Illar.					+	
Centaurea steveniana Klok.					+	
Cephalanthera damasonium (Mill.) Druce		+			+	
Cephalanthera longifolia (L.) Fritsch		+			+	
Cephalanthera rubra (L.) Rich.		+			+	
Cephalaria demetrii Bobr.				+	+	
Cerastium biebersteinii DC.				+	+	
Cerastium crassiusculum Klok.				+		
Cerastium schmalhausenii Pacz.				+		
Cleome ornithopodioides L.s.l.					+	
Colchicum ancyrense B.L.Burtt.					+	
Colchicum umbrosum (Ker Gawl.) Stev.					+	
Cotoneaster tauricus Pojark.			+	+		
Crambe maritima L. sensu Czerniak.					+	+
Crambe aspera M.Bieb.					+	
Crambe koktebelica (Junge) N.Busch	I				+	
Crambe pinnatifida R.Br.					+	

Crambe steveniana Rupr.			+		+	
Crambe tatarica Sebeok					+	
Crataegus karadaghensis Pojark.			+	+		
Crataegus pojarkoviae Kossych			+	+	+	
Crataegus sphaenophylla Pojark.				+		
Crataegus taurica Pojark.			+	+		
Crataegus tournefortii Griseb.					+	
Crocus angustifolius Weston (Crocus suzianus (Kosbuc))			+		+	
Crocus pallasii Goldb.					+	
Crocus speciosus Bieb.					+	
Cyclamen coum Mill.s.l.			+	+	+	
Dactylorhyza romana (Seb. et Mauri) Soó		+			+	
Delphinium pallasii Nevski.			+		+	
Ephedra distachya L.						+
Epipactis atrorubens (Hoffm. ex Bernh.) Basser.		+			+	
Epipactis helleborine (L.) Crantz		+			+	
Epipactis microphylla (Ehrh.) Sw.		+			+	
Epipactis palustris (L.) Crantz		+			+	
Eremurus spectabilis M.Bieb. s.l. (E.jungei Juz.)				+	+	
Eryngium maritimum L.						+
Euphorbia paralias L.					+	+
Gagea callieri Pasch.				+		
Galanthus plicatus M.Bieb.		+		+	+	
Genista scythica Pacz.					+	
Glaucium flavum Crantz					+	+
Himantoglossum caprinum (Bieb.) C.Koch	I	+		+	+	
Isatis littoralis Stev. ex DC.				+	+	
Limodorum abortivum (L.) Sw.		+			+	
Linum pallasianum Schult.					+	
Nectaroscordum bulgaricum Janka			+	+	+	
Neotinea tridentata (Scop.) R.M.Bateman Pridgeon et M.W. Chase		+			+	
Neottia nidus-avis (L.) Rich.		+			+	
Nitraria schoberi L.					+	
Onobrychis pallasii (Willd.) M. Bieb.			+		+	
Onosma polyphylla Ledeb.	I		+	+	+	
Ophrys oestrifera M.Bieb.	I	+	+		+	
Orchis mascula (L.) L.		+			+	
Orchis militaris L.		+			+	
Orchis punctulata Stev. ex Lindl.	I	+			+	
Orchis purpurea Huds.		+			+	
Orchis simia Lam.		+			+	

Paeonia daurica Ahdr.					+	
Paeonia tenuifolia L.	I				+	
Palimbia salsa (L. f.) Besser.					+	
Pistacia mutica Fish. et C.A. Mey					+	
Pisum elatius Bieb.					+	
Platanthera chlorantha (Cust.) Rchb.		+			+	
Pulsatilla taurica Juz.				+	+	
Raphanus maritimus Sm.s.l.					+	
Rumia crithmifolia (Willd.) Koso-Pol.			+	+	+	
Salvia scabiosifolia Lam.			+	+	+	
Silene syreistschikowii P.Smirn.			+			
Solanum zelenetzkii Pojark.				+		
Sorbus torminalis (L.) Grantz.(Crataegus torminalis L., Pyrus torminalis (L.)Ehrh.)					+	
Stachys angustifolia M.Bieb.					+	
Stipa brauneri (Pacz.) Klok.					+	
Stipa capillata L.					+	
Stipa heterophylla Klokov (S.pulcherrima s.l.)					+	
Stipa lessingiana Trin. et Rupr.					+	
Stipa lithophila P.Smirn.			+	+	+	
Stipa oreades Klok.					+	
Stipa poëtica Klok.					+	
Stipa pulcherrima K.Koch					+	
Stipa syreistschikowii P.Smirn.	I		+	+	+	
Stipa tirsa Stev.					+	
Stipa ucrainica P.Smirn.					+	
Tetragonolobus maritimus (L.) Roth						+
Thymus dzevanovskyi Klok et Shost.				+		
Tilia dasystyla Steven.				+	+	
Tulipa schrenkii Regel					+	
Vincetoxicum tauricum Pobed.				+		
Zostera marina L.	I					+
Zostera noltii Hornem						+
Gymnospermophyta						
Juniperus excelsa Bieb.					+	
Pinus stankewiczii (Sukacz.) Fomin. / (Pinus pityusa Stev.)			+		+	
Bryophyta						
Anoectangium handelii Schiffn.					+	
Pterogonium gracile (Hedw.) Sw.					+	
Algae						
Phaeophyta						
Cladostephus spongiosus (Huds.) C. Agardt					+	
Cladostephus verticillatus (Lightf.)C.Agardt					+	
Cystoseira barbata (Stackhouse) C.Agardh						+

Cystoseira crinita Duby						+
Dictyota dichotoma (Huds.) J.V. Lamour.					+	
Punctaria latifolia Grev.					+	
Spermatochnus paradoxus (Roth) Kutz.					+	
Sphacelaria nana Nageli ex Kutz.=S.saxatilis (Kuck.)Sauv.					+	
Stilophora tenella (Esper)P.S.Silva=S.rhizodes (Turn.)J.Agardt					+	
Rhodophyta						
Callithamnion granulatum (Ducluz.) C.Agardh					+	
Chroodactylon ramosum(Thwait.)Hansg.=Asterocytis ramosa (Thwait)Gobi					+	
Laurencia coronopus J.Agardh					+	
Lophosiphonia reptabunda (Suhr.)Kylin					+	
Nemalion helminthoides (Velley) Batters					+	
Osmundea hybrida (DC.)K.W.Nam in K.W. Nam, Maggs &Garbary=Laurencia hybrida (DC.) Lenorm.					+	
Osmundea truncata (Kutz.)K.W.Nam et Maggs=(Laurencia pinnatifida (Huds.)Lamour)					+	
Phyllophora crispa (Hudson) P.S.Dixon						+
Polysiphonia spinulosa Grev.					+	
Rhodochorton purpureum (Lightf.)Rosenv.					+	
Stylonema alsidii (Zanardini)K.M.Drew=Goniotrichum elegans (Chauv.)Zanard.					+	
Chlorophyta						
Cladophora dalmatica Kutz.					+	
Cladophora vadorum (Aresch.) Kutz.					+	
Cladophoropsis membranacea (hofm.Bang. ex C.Agardh) Borg.					+	
Codium vermilara (0livi)Delle Chiage					+	
Siphonocladus pusillus (Kutz.) Hauck					+	
Ascomycota						
Cetraria steppae (Savicz.) Karnef.(Coelocaulon steppae (Savich.)Barreno&Vazques, Cornicularia steppae Savicz.)					+	
Lassalia pustulata (L.) Merat.(=Umbilicaria pustulata (L.)Hoffm.					+	
Lethariella intricata (Moris) Krog					+	
Lobaria pulmonaria (L.) Hoffm.					+	
Ramalina canariensis Steiner					+	
Ramalina pontica Vezda					+	
Roccella phycopsis (Ach.) (Rocella fucoides (Dicks.)Vain.					+	
Squamarina cartilaginea (With.) P.James in D.Hawksw. et al.					+	

Squamarina gypsacea (Sm.) Poelt					+	
Tornabea scutellifera (With.) J.R. Laundon					+	
Xanthoparmelia ryssolea (Ach.) O.Blanco et al.(= Neofuscelia ryssolea (Ach.) Essl. Parmelia rissolea (Ach.) Nyl.)					+	
Ascomycota						
Hericium coralloides Fr.Gray					+	
Lactarius sanguifluus (Paulet)Fr.					+	
Pisolithus arrhizus (Scop.: Pers.)S.Rauschert					+	
Tuber aestivum Vitt					+	

Bern – Bern Convention on the Conservation of European Wildlife and Natural Habitats
CITES – Convention on International Trade in Endangered Species
IUCN – The IUCN Red List of Threatened Species
ERL – European Red List
RDBU – Red Data Book of Ukraine
BCRDB – Black Sea Red Data Book

Annex 2. Endangered animal species

Group, Species	Bern	Bonn	CITES	ERL	IUCN	RDBU	BCRDB
Mammals							
Allactaga jaculus (Pallas, 1788)					+	+	
Barbastella barbastellus (Schreber, 1774)	II	II			VUA2c	+	
Cricetulus migratorius (Pallas, 1773)					+	+	
Crocidura leucodon (Hermann, 1780)	II				+	+	
Crocidura suaveolens Pallas	II						
Delphinus delphis Linnaeus, 1758	II	II	+		+	+	+
Ellobius talpinus (Pallas, 1770)					+	+	
Eptesicus serotinus (Schreber, 1774)	II	II			+	+	
Hypsugo saavii (Bonaparte, 1837)	II	II			+	+	
Miniopterus schreibersii (Kühl, 1817)	II	II			+	+	
Mustela eversmanni Lesson, 1827	II				+	+	
Myotis blythi (Tomes, 1857)	II	II			+	+	
Myotis emarginatus (Geoffroy, 1806)	II	II			VUA2c	+	
Myotis mystacinus (Kuchl,1817)	II	II			+	+	
Nyctalus noctula (Schreber, 1877)	II	II			+	+	
Phocoena phocoena (Linnaeus, 1758)	II	II	I	K	VUA2c d	+	+
Pipistrellus kühlii (Kühl, 1819)	II	II			+	+	
Pipistrellus natusii (Keyserling et Blasius, 1839)	II	II			+	+	
Pipistrellus pipistrellus (Schreber, 1774)		II			+	+	
Pipistrellus pygmoeus (Leach, 1825)	II	II			+	+	
Plecotus auritus (Linnaeus, 1758)	II	II		I	+	+	
Rhinolophus ferrumequinum (Scrheber, 1774)	II	II			LR/nt	+	
Rhinolophus hipposideros (Bechstein,1800)	II	II			+	+	
Sorex minutus L.	II						
Tursiops truncatus (Montagu, 1821)	II	II	+		DD	+	+
Vespertilio murinus Linnaeus, 1758	II	II			+	+	
Aves							
Acanthis cannabina (L.)	II						
Accipiter gentilis (L.)	II	I,II	II				
Accipiter nisus (L.)	II	I,II	II				

Acrocephalus arundinaceus (L.)	II						
Acrocephalus palustris (Bechst.)	II						
Acrocephalus schoenobaenus (L.)	II						
Actitis hypoleucos (L.)	II						
Aegithalos caudatus (L.)							
Aegypius monachus (Linaeus, 1766)	II	I,II	II	V	NT	+	
Alcedo atthis L.	II						
Anas acuta L.		I,II					
Anas clypeata L.		I,II					
Anas crecca L.		I,II					
Anas penelope L.		I,II					
Anas querquedula L.		I,II					
Anas strepera Linnaeus, 1758		I,II				+	
Anas platyrhynchos L.		I,II					
Anser albifrons (Scop.)		I,II					
Anser anser (L.)		I,II					
Apus melba (L.)	I						
Aquila chrysaetos Linnaeus, 1758	II	I,II	II			+	
Aquila heliaca Savigni, 1809	II	I,II	I,II	R	+	+	
Ardea purpurea L.	II	II					
Ardeola ralloides (Scopoli, 1769).)	II					+	+
Arenaria interpres L.	II	II					
Asio flammeus (Pontoppidan, 1763)	II		II			+	
Asio otus (L.)	II		II				
Athene noctua (Scop.)	II		II				
Aythya fuligula (L.)		I,II					
Aythya marina (L.)		I,II					
Aythya nyroca (Güldenstadt, 1770)		I,II			NT	+	+
Aythya ferina (L.)		I,II					
Bombycilla garrulus (L.)	II						
Botaurus stellaris (L.)	II	II					
Bubo bubo (Linnaeus, 1758)	II		II			+	
Bucephala clangula (Linnaeus, 1758)		I,II				+	
Burhinus oedicnemus (Linnaeus, 1758)	II	II		+		+	+
Buteo buteo (L.)	II		II				
Buteo lagopus (Pontopp.)	II		II				
Buteo rufinus (Cretzschmar, 1827)	II		II			+	
Calidris alpina (L.)	II	I,II					
Caprimulgus europaeus L.	II						

Carduelis carduelis (L.)	II						
Certhia familiaris L.	II						
Chloris chloris (L.)	II						
Ciconia ciconia (L.)	II	II					
Ciconia nigra (Linnaeus, 1758)	II	II	II			+	+
Circaetus gallicus (Gmelin, 1788)	II	I,II	II			+	
Circus aeruginosus (L.)	II		II				
Circus cyaneus (Linnaeus, 1766)	II	I,II	II			+	
Circus pygargus (Linnaeus, 1758)	II	I,II	II			+	
Coccothraustes coccothraustes (L.)	II						
Columba			+				
Columba oenas Linnaeus, 1758						+	
Coracias garrulus Linnaeus, 1758	II	II				+	
Crex crex (L.)	II	II		R	NT		
Cygnus cygnus (L.)	II	I,II					
Cygnus olor (Gm.)		I,II					
Delichon urbica (L.)	II						
Dendrocopos major (L.)	II						
Dendrocopos syriacus Hemp.et Ehrenb.	II						
Egretta alba (L.)	II		+				
Egretta garzetta (L.)	II		+				
Emberiza cia L.	II						
Emberiza citrinella L.	II						
Emberiza melanocephala Scopoli, 1769	II					+	
Emberiza pusilla Pall.	II						
Falco cherrug Gray, 1834	II	I,II	II		ENA2bcd+3bcd	+	+
Falco columbarius L.	II	I,II	II				
Falco peregrinus Tunstall, 1771	II	I,II	I,II			+	+
Falco subbuteo (L.)	II	I,II	II				
Falco tinnunculus L.	II	I,II	II				
Falco vespertinus L.	II	I,II	II				
Ficedula albicollis albicollis (Temm.)	II						
Ficedula hypoleuca (Pall.)	II						
Ficedula parva (Bechst.)	II						
Gavia arctica (L.)	II	II					
Gelochelidon nilotica Gm.	II						
Grus grus (Linnaeus, 1758)	II	II	II			+	+
Gyps fulvus (Hablizl, 1873)	II	I,II	II			+	
Haematopus ostralegus (Linnaeus, 1758)						+	+

Haliaeetus albicilla (Linnaeus, 1758)	II	I,II	I,II	R	LR/nt	+	+
Hieraaetus pennatus (Gmelin, 1788)	II	I,II	II			+	
Himantopus himantopus (Linnaeus, 1758)	II	II				+	+
Hippolais icterina (Vieill.)	II						
Hirundo daurica L.	II						
Hirundo rustica L.	II						
Hydroprogne caspia (Pallas, 1770)	II	II				+	+
Ixobrychus minutus (L.)	II	II					
Jynx torquilla L.	II						
Lanius collurio L.	II						
Lanius excubitor Linnaeus, 1758.	II					+	
Lanius minor Gm.	II						
Lanius senator Linnaeus, 1758	II					+	
Larus melanocephalus Temm.	II	II					
Larus genei Breme	II	II					
Larus ichthyaetus Pallas, 1773		II				+	
Larus minutus Pall.	II						
Locustella luscinioides (Sav.)	II						
Loxia curvirostra L.	II						
Luscinia luscinia (L.)	II						
Luscinia megarhynchos C.L.Brehm	II						
Luscinia svecica (L.)	II						
Melanocorypha calandra (L.)	II						
Mergus albellus L.	II	I,II					
Mergus merganser		I,II					
Mergus serrator L.		I,II				+	+
Merops apiaster L.	II	II					
Milvus migrans (Bodd.)	II	I,II	II			+	
Monticola saxatilis (Linnaeus, 1766)	II					+	
Motacilla alba L.	II						
Motacilla cinerea Tunst.	II						
Motacilla citreola Pall.	II						
Motacilla feldegg Mich.	II						
Motacilla flava L.	II						
Muscicapa striata (Pall.)	II						
Neophron percnopterus Linnaeus, 1758	II	I,II	II		+	+	
Netta rufina (Pallas, 1773)		I,II				+	
Nucifraga caryocatactes (L.)	II						
Numenius arquata (Linnaeus, 1758)		I,II				+	+

Nycticorax nycticorax (L.)	II						
Oenanthe hispanica (L.)	II						
Oenanthe isabellina (Temm.)	II						
Oenanthe oenanthe (L.)	II						
Oenanthe pleschanka (Lepechin)	II						
Oriolus oriolus (L.)	II						
Otis tarda Linnaeus, 1758.	II	I,II	II	R	VUA3cd	+	
Otus scops (Linnaeus, 1758)	II		II			+	
Pandion haliaetus (Linnaeus, 1758)	II	II	II			+	
Panurus biarmicus (L.)	II						
Parus ater L.	II						
Parus caeruleus L.	II						
Parus major L.	II						
Pernis apivorus L.	II		II				
Phalacrocorax aristotelis (Linnaeus, 1761)						+	+
Phalacrocorax pygmaeus (Pallas, 1773)	II	II		K	NT	+	
Phoenicurus oshruros (S.G.Gmelin)	II						
Phoenicurus phoenicurus samamisicus Hablizl	II						
Phylloscopus collybita (Vieill.)	II						
Phylloscopus sibilatrix (Bechst.)	II						
Phylloscopus trochilus (L.)	II						
Plegadis falcinellus (Linnaeus, 1766)	II	II				+	+
Podiceps auritus L.	II	II					
Podiceps grisegena (Bodd.)	II	II					
Podiceps nigricollis C.L.Brehm	II						
Podiceps ruficollis (Pall.)	II						
Porzana parva (Scop.)	II	II					
Prunella modularis (L.)	II						
Puffinus puffinus (Brunn.)	II						
Recurvirostra avosetta (Linnaeus, 1758).	II	II				+	
Regulus ignicapillus (Temminck, 1820)	II					+	
Regulus regulus (L.)	II						
Riparia riparia (L.)	II						
Rufibrenta ruficollis (Pallas, 1769)	II	I,II	II	R	VUB2ab(iiI)	+	+
Saxicola rubetra (L.)	II						
Saxicola torquata (L.)	II						
Somateria mollissima (Linnaeus,	I,II					+	

1758)							
Spinus spinus (L.)	II						
Sterna albifrons Pallas, 1764	II	II				+	
Sterna hirundo L.	II	II					
Sterna sandvicensis Lath.	II	II					
Strix aluco L.	II		II				
Sturnus roseus (Linnaeus, 1758)	II					+	
Sylvia atricapilla dammholzi Stresem.	II						
Sylvia borin (Bodd.)	II						
Sylvia communis Lath.	II						
Sylvia curruca (L.)	II						
Sylvia nisoria (Bechst.)	II						
Tadorna ferruginea (Pallas, 1764)	II	I,II				+	+
Tadorna tadorna (L.)	II	I,II					
Tringa glareola L.	II	I,II					
Tringa nebularia (Gunn.)		I,II					
Tringa ochropus L.	II	I,II					
Tringa totanus (L.)		I,II					
Troglodytes troglodytes (L.)	II						
Upupa epops L.	II						
Reptilia							
Emys orbicularis (L.)	II		II				
Hierophis caspius (Gmelin, 1789)	II					+	
Mediodactylus kotschyi (Steindachner, 1870.)	II		+	+		+	
Natrix tessellata (Laur.)	II						
Podarcis taurica (Pall.)	II						
Pseudopus apodus (Pallas, 1775)*	II					+	
Zamenis situla (Linnaeus, 1758)	II				DD	+	
Amphibia							
Hyla arborea (L.)	II				LR/nt		
Pelobates fuscus (Laur.)	II						
Pisces							
Acipenser guldenstaedti Brandt et Radzeburg, 1833		II	II	+	ENA2d	+	+
Acipenser nudiventris Lovetzky, 1828		II	II	E	ENAlac de+2d	+	
Acipenser stellatus Pallas, 1771		II	II	+	ENA2d	+	+
Arnoglossus kessleri Schmidt, 1915						+	
Belone belone euxini Gunter							+
Benthophilus stellatus (Sauvage, 1874)						+	
Blennius sphynx Valensinnes							+
Boops boops (Linnaeus, 1758)						+	

Callionymus risso Lesueur, 1814						+	
Callionymus pusillus Delaroche, 1809						+	
Chelidonichchthys lucerna (Linnaeus, 1758)						+	+
Chromis chromis (Linnaeus, 1758)						+	
Clupeonella cultriventris (Normann)							+
Ctenolabrus rupestris (linnaeus, 1758)						+	
Dicentrachus labrax (linnaeus, 1758)						+	
Diplecogaster bimaculatus (Bonnaterre, 1788)						+	
Diplodus annularis Linnaeus							+
Diplodus puntazzo (Cetti, 1784)						+	
Gobius bucchichi Steindachner, 1870						+	+
Gobius cobitis Pallas							+
Gobius paganellus Linnaeus, 1758						+	
Hipppocampus guttulatus Guvier, 1829	II		+		+	+	+
Huso huso (Linnaeus, 1758)	II	II	II	+	ENA2d	+	
Labrus viridis Linnaeus*						+	
Lepadogaster candollii Risso, 1810						+	
Lepadogaster lepadogaster (Bonnaterre, 1788)						+	+
Lipophrys pavo Risso							+
Lophins piscatorins Linnaeus, 1758						+	
Mesogobius batrachocephalus (Pallas)							+
Mugil cephalus							+
Mullus barbatus ponticus Essipov							+
Neogobius ratan (Nordmann)							+
Nerophis ophidion							+
Salmo labrax Pallas, 1814				+	+	+	
Sarda sarda (Bloch)							+
Sciaena umbra Linnaeus, 1758						+	
Scomber scombrus Linnaeus							+
Scorpaena porcus Linnaeus							+
Serranus scriba (linnaeus, 1758)						+	
Solea nasuta (Pallas)							+
Spicara smaris (Linne)							+
Symphodus rostratus (Bloch, 1791)						+	

Syngnathus tenuirostris Rathke, 1837						+	+
Syngnathus typhle argentatus Pallas							+
Syngnathus variegatus Pallas, 1814						+	
Thunnus thunnus							+
Trachinus draco Linnaeus							+
Tripterrygion tripteronotus (Risso, 1810)						+	
Umbrina cirrhosa (Linnaeus, 1758)*						+	
Xiphias gladius							+
Zeus faber Linnaeus, 1758						+	
Zosterisessor ophiocephalus							+
Cephalochordata							
Ampnioxus lanceolatum							+
Mollusca							
Helix lucorum Linnaeus, 1758				+		+	
Ostrea edulis Linnaeus, 1758						+	+
Pholas dactylus	+						
Pomatias rivulare (Eichwald, 1929)						+	
Datella torentina							+
Insecta							
Acanthaclisis occitanica (Villers, 1789)				+		+	
Acherontia atropos (Linnaeus, 1758)						+	
Ammophila sareptana Kohl, 1884						+	
Anadrymadusa retowskii Adelung, 1908						+	
Anax imperator Leach, 1815						+	+
Andrena (Melandrena) magna Warncke, 1965						+	
Andrena (Melandrena) stigmatica Morawitz, 1895						+	
Andrena (Polyandrena) ornata Morawitz, 1866						+	
Ascalaphus macaronius (Scopoli, 1763)				+		+	
Bolivaria brachyptera (Pallas, 1773)				+		+	
Bombus (Megabombus) argillaceus Smith, 1854						+	
Bombus (Megalobombus) ruderatus (Fabricius, 1775)						+	
Bombus (Thoracobombus) laesus Morawith, 1875						+	

Bombus (Thoracobombus) zonatus Smith, 1854						+	
Calopteryx splendens taurica Selys, 1853						+	
Calostoma sycophanta (Linnaeus, 1758)				+		+	
Carabus (Pachystus) hungaricus (Fabricius, 1792)						+	
Carabus (Procerus) scabrosus tauricus (Bonelli, 1811)				+		+	
Catocala dilecta (Hubner, 1808)						+	
Catocala disjuncta (Geyer,1828)						+	
Catocala diversa (Geyer, 1828)						+	
Catocala fraxini (Linnaeus, 1758)						+	
Catocala sponsa (Linnaeus, 1767)						+	
Celonites abbreviatus tauricus (Pallas, 1771) (Kostylev, 1935)						+	
Cerambyx cerdo (Linnaeus, 1758)	II			E	VUA1c +2c	+	
Cerceris tuberculata (Villers, 1787)						+	
Cryptocheilus alternatus (Lepeletier, 1845) = C.annulatus (Fabricius, 1798)						+	
Cryptocheilus rubellus (Eversmann, 1846)						+	
Cucullia argentina (Fabricius, 1787)						+	
Dasypoda (Megadasypoda) spinigera Kochl, 1905						+	
Divaena haywardi (Tams, 1926)						+	
Dorcadion equestre (Laxmann, 1770)						+	
Dytiscus latissimus	II			E	VUA2c ,B1+2a	+	
Empusa fasciata Brulle, 1836				+		+	
Emus hirtus (Linnaeus, 1758)						+	
Euchloe ausonia (Hubner [1804])						+	
Formica rufa				+	+		
Graphoderes bilineatus	II						
Haploembia solieri Rambur, 1842						+	
Hemaris croatica (Esper, 1779)						+	
Hemaris tityus (Linnaeus, 1758)						+	
Heodes dispar	II			V	DD		
Hipparchia statilinus (Hufnagel, 1766)						+	
Hyles hippophales	+			+			
Iphiclides podalirius (Linnaeus, 1758)						+	

Iris polystictica (Fischer-Waldheim, 1833)						+	
Larra anathema (Rossi, 1790)						+	
Lemonia ballioni (Christoph, 1888)						+	
Leucomigus candidatus (Pallas, 1771)						+	
Libythea celtis (Laicharting in Fuessly, 1782)						+	
Lixus canescens (Fischer-Waldeim, 1835)						+	
Lucanus cervus Linnaeus, 1758						+	
Lycaena dispar	II			E	LR		
Mantispa styriaca (Poda, 1761)				+		+	
Megachile (Chalicodoma) lefebrei Lepeletier, 1841						+	
Megascolia maculata (Drury, 1773)						+	
Melitturga (Melitturga) davicornis Latreille, 1806						+	
Merodon crassifemoris Paramonov, 1925						+	
Merodon femoratoides Paramonov, 1925						+	
Merodon nigritarsis Rondani, 1845						+	
Myrmeleon formicarius				+			
Ocypus curtipennis (Motschulsky, 1849)						+	
Papilio machaon (Linnaeus, 1758)						+	
Paravespa rex (Schulthes, 1923)						+	
Periphanes delphinii (Linnaeus, 1758)						+	
Periphanes treitschkei (Frivaldsky, 1835)						+	
Plebeius pylaon (Fischer von Waldcheim, 1832						+	
Poecilimon boldyrevi Miram, 1938						+	
Poecilimon pliginskii Miram, 1929						+	
Polochrum repandum spinosa, 1805						+	
Proserpinus proserpina (Pallas, 1772)	II			V	DD	+	
Protaetia (Cetonischema) speciosa speciosa (Adams, 1817)							
Proterebia afra (Fabricius, 1787) (= phegea Borkhausen, 1788)						+	
Pseudomogoplistes buzantius						+	

Gorochov, 1995							
Pseudophilotes bavius (Eversmann, 1832)						+	
Purpuricenus kaehleri (Linnaeus, 1758)						+	
Rosalina alpina (linnaeus, 1758)	II			+		+	
Saga pedo (Pallas, 1771)	II			+	VUB1+ 2bd	+	
Satanas gigas (Eversmann, 1855)					+	+	
Scarabaeus sacer (Linnaeus, 1758)						+	
Sphex flavipennis Fabricius, 1793						+	
Sphex funerarius Gussakovskyj, 1934						+	
Sphingonaepiopsis gorgoniades (Hubner, 1819)						+	
Stizoides tridentatus (Fabricius, 1775)						+	
Stizus bipunctatus (F.Smith, 1856)						+	
Tomares callimachus (Eversmann, 1848)						+	
Trachusa (Archianthidium) pubescens Morawitz, 1872						+	
Xylocopa (Coroxila) iris (Christ, 1791)						+	
Xylocopa (Xylocopa) valga Gerstaecker, 1872						+	
Xylocopa (Xylocopa)violaceae (Linnaeus, 1758)						+	
Zerynthia polyxena ([Denis et Schifermiiller], 1775)	II			+		+	
Zygaena laeta (Hubner, 1790)						+	
Zygaena sedi (Fabricius, 1787)						+	
Arachnida							
Euscorpius tauricus (Koch, 1838)						+	
Galeodes araneoides (Pallas, 1772)							
Myraipoda							
Scutigera coleoptera (Linnaeus, 1758)						+	
Crustacea							
Anomalocera patersoni							+
Apseudopsis ostroumovi							+
Biancolina cuniculus							+
Carcinus aestuarii Nardo, 1847 =Carcinus mediterraneus M, 1976						+	+
Centropages kroyeri pontica							+
Diogenes pugilator Roux, 1828							+
Eriphia verrucosa Forskall, 1755						+	+

Macropipus arcuatus							+
Oitona minuta							+
Pachygrapsus marmoratus Fabricius, 1787						+	+
Pilumnus hirtellus (Linnaeus, 1761)						+	+
Pontella mediterranea							+
Upogebia pusilla (Petagna, 1792)						+	+
Xantho poressa (Olivi, 1792)						+	

Bern – Bern Convention on the Conservation of European Wildlife and Natural Habitats
Bonn – Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
CITES – Convention on International Trade in Endangered Species
ERL – European Red List
IUCN – The IUCN Red List of Threatened Species
RDBU – Red Data Book of Ukraine
BCRDB – Black Sea Red Data Book

DOCUMENTATION

Decision on the Karadag Nature Reserve Creation (1979)

Copy in English

Council of Mministers of Ukrainian SSR

R e s o l u t i o n # 386

of 9 August, 1979

On creation of the Karadag
State *(since 1992 - Nature)* Reserve

To conserve unique natural-mineral complex and improve protection and ecological conditions of rare species of flora and fauna conservation in massif Karadag in the Crimean Oblast the Council of Ministers of the Ukrainian SSR decides:

1. Council of Ministers agrees with the proposal of the State Committee of the UkrSSR for nature protection and the Academy of Sciences of the UkrSSR, which the state plan of the USSR approved, concerning creation of the Karadag State Reserve in the system of the Academy of Sciences of the UkrSSR with total area of 3000 hectares and for handing over in constant use of the reserve 1370 hectares of lands in 1979 (including: 35 hectares of lands from the A.A.Kovalevskyi Institute of Biology of Southern Seas, 735 hectares of lands from the Sudakskyi Forestry and 600 hectares of area of water on the Black Sea).

2. Crimean Oblast executive committee has to solve problems concerning giving other 1630 hectares to the Karadag State Reserve in 1981, as well as creation of protected zone around the reserve.

Chairman of the Council of Ministers
Of the Ukrainian SSR **A. Lyashko**

Secretary of the Council of Ministers
of the Ukrainian SSR **K. Boiko**

Regulations on the Karadag Nature Reserve (1998)

copy in English

"APPROVED"
Deputy Minister for Environmental Protection and Nuclear Safety of Ukraine

10 February 1998

"AGREED"
Vice-President of the National Academy of Sciences of Ukraine

10 July 1997

"AGREED"
Director of the Central Board of National Nature Parks and Reserve Affairs of the Ministry for Environmental Protection and Nuclear Safety of Ukraine Ukraine

R E G U L A T I O N S
on the Karadag Nature Reserve

Crimea, c.Feodosia, v.Kurortne - 1997

I. GENERAL POSITIONS

I.1. The Karadag Nature Reserve was created in 1979 …to conserve unique complex of minerals, to protect rare fauna and flora of Karadag massif and marine ecosystems complex, to investigate there tendencies of natural processes and phenomenons, to develop scientific backgrounds for nature protection.

I.2. The Reserve is a constituent component of the National Academy of Sciences of Ukraine, a nature protection research institution….

I.3. The Reserve locates in the Autonomic Republic of Crimea…

I.4. … the Reserve protects marine and terrestrial areas…

I.5. …

I.6. ….

I.7. The Reserve is a juridical person…

I.8. The Reserve is guided by these Regulations, the Statute of the National Academy of Sciences of Ukraine, the Law of Ukraine 'On Nature Reserve Fund (On Protected Areas) of Ukraine' , other laws and resolutions of the Verkhovna Rada (Parliament) of Ukraine, decrees of the President of Ukraine, resolutions and directions of the Cabinet of Ministers of Ukraine, Presidium of the National Academy of Sciences of Ukraine, Environmental Ministry of Ukraine, other legal and normative acts, which do not conflict with above mentioned.

I.8.1. Presidium of the National Academy of Sciences of Ukraine and Environmental Ministry of Ukraine approve scientific directions which Scintific-Technical Council of the Reserve propose and Bureau of General Biology Branch of the National Academy of Sciences of Ukraine agrees.

I.8.2. … The Reserve carries out next activities:

a) researches and nature protection;
b) tourist's-excursion, recreation and marketing services;
c) advertising, publishing, communication, computer and xerox services;
d) making and selling o souvenirs, traditional trade and other productions, commerce, catering and intermediary;
e) transport services in country and abroad.

…

I.8.3. To finance protected measures it is possible to make special ecological fund… which include penalties, payments for pollution, special and voluntary fees….

I.8.4. …

I.9. Economic background of the Reserve activity budget financing, special purpose financing of programs and projects, means from economic activities, other sources form.

I.10. Juridical address of the Reserve:

Ukraine, 334877, Crimea, city Feodosia , village Kurortne, 24 Nauky Str.

II. GENERAL TASKS AND DIRECTIONS OF INVESTIGATIONS IN THE KARADAG NATURE RESERVE

II.1. General tasks of Karadag Nature Reserve are:

a) conservation of nature complexes and objects of its territory and area of water;
b) investigations and observations of environment, justification of protected measures;
c) ecological education;
d) training of scientists and specialists in the field of environmental protection and preservation;
e) co-ordination and investigations of other protected areas (wildlife reserves, natural monuments, reserve stows and other areas) in the region;
f) elaboration and assistance in it for new forms and instruments of its different activities, including sustainable tourism, recreation and education to improve protection and conservation of nature reserve fund of Ukraine.

II.2. To carry out above mentioned tasks the Reserve:

a) elaborates general directions of investigations…;
b) makes up, approves and fulfils the plan of investigations…;
c) investigations, analyses and summarises of scientific results, especially in annual Chronicles of Nature…;
d) develops prognosis and examinations for different directions of science;
e) organises, takes part at scientific competitions, international co-operation, training of specialists, etc.
f) organises conferences, meetings, symposiums, scientific courses, including international ones;
g) carries out publishing activities;
h) training of scientists…

II.3. General scientific themes are:

- elaboration of scientific backgrounds for nature protection and biodiversity conservation on base of complex investigations of different ecosystems of the reserve…;
- elaboration and test of systems and methods of regional monitoring, estimation and prognosis of environmental state of geoecosystems in conditions of human impacts;
- investigations… of marine mammals;
- fundamental and applied investigations of problems of marine geoecology, biology, bionics, botany, biochemistry, zoology;
- use of the reserve area by research institutes as a testing area;
- development of biological technologies and their tests;
- study, elaboration and implementation of new forms, methods and instruments of sustainable tourism, recreation and education in objects of the Nature Reserve Fund of Ukraine.

III. RIGHTS AND DUTIES OF THE KARADAG NATURE RESERVE

…

Rights and duties of the Reserve hence from its tasks and competence.

IV. REGIME OF THE RESERVE

IV.1. Support of protection regime for area of the reserve is one of Reserve's priorities.

IV.2. All land and marine areas of the Reserve exclude from agricultural use and give to the Reserve in accordance with the legislation of Ukraine…

IV.3. Any activities which conflicts with goals of the Reserve are forbidden, namely:

- construction works…;
- traffic and parking of cars…;
- non-agreed recreation;
- all sorts of forest use and storage of herbs, fodder and other plants, beekeeping, pasture of cattle; other uses of fauna and flora which disturb natural complexes of the Reserve;
- hunting, fishing, moving into areas of new species of animals and plants…
- geological mining prospects…;
- flights lower 2000 m…;
- military marine operations…

IV.4. For conservation and restoration of native nature complexes, fulfilment of agreed investigation and protected measures and other tasks in accordance with the Project of organisation of the territory and their complexes protection it is permitted:

- restoration works and protected measures to warn human impacts…, regulation of numbers of separate species, etc.;
- some fire-prevention and sanitary measures;
- some administrative constructions;
- agreed collections and other research and educational collections…

Concerning small economic zone…

IV.5. Some economic needs…

IV.6. Use of natural resources and all types of nature use could be agreed by the Republic Committee of Environment and Natural Resources of the Autonomic Republic of Crimea with limits, which the Environmental Ministry of Ukraine allow.

IV.7. Restrictions in the protected zones of the Reserve: construction of industrial and other objects, other human impacts as fishing, hunting, construction of roads, melioration, cutting of trees, ploughing up of lands, use of pesticides, etc.

IV.8. …

IV.9. …

IV.10. On the territory of the Reserve permit regime is determined …

IV.11. Responsibility for the breach of the regime…

IV.12. …

IV.13. State control…

IV.14. Public control…

V. MEANS AND PROPERTY OF THE KARADAG STATE RESERVE

State and other sources of financing...

VI. STRUCTURE AND PROTECTION OF THE RESERVE

VI.1. Director of the Reserve approves the structure of the Reserve…

VI.2. Branches of the Reserve: guard service, scientific division and laboratory, administrative and economic divisions and others.

VI.3. About guard service of the Reserve…

VII. DIRECTION OF THE KARADAG NATURE RESERVE

VII.1. Director is the head of the Reserve…

VII.2. Duties of the Director: …

VII.3. Deputies of the Director of the Reserve, chief accountant …

VII.4. Heads of divisions and staff of the Reserve are appointed by … after competition…

VII.5. The highest advise agency concerning investigations and personal administration is the Scientific-Technical Council… Director of the Reserve is head of this Council.
VII.6. Members of this Council are chosen …
VII.7. The Council considers general directions of scientific activities of the Reserve…
VII.8. The Scientific-Technical Council has rights…
VII.9. …

VIII. REORGANIZATION AND LIQUIDATION OF THE Karadag RESERVE

Reorganization and liquidation of the Reserve are carried out according to the legislation…
The regulations were prepared in accordance with the Law of Ukraine "On Nature Reserve Fund (On Protected Areas) of Ukraine" on the 16th of June, 1992.

Contents of the Design of Organization of Territory and Protection of Natural Complexes *(management plan)* of the Karadag Nature Reserve

List of schemes and maps which are added

PHOTOS

APPENDIXES

Design of organization of the territory and protection of natural complexes of the reserve

Page