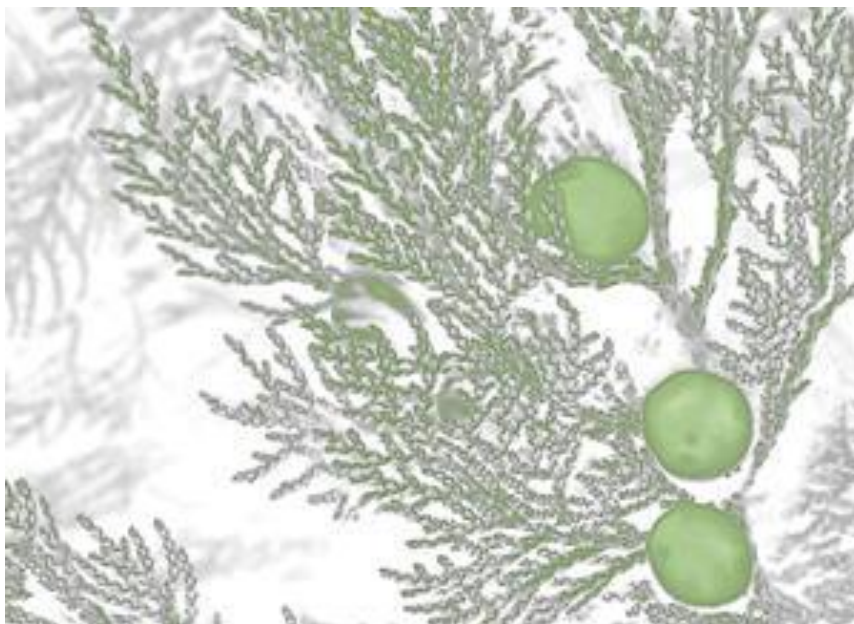


FINAL REPORT



Grant Recipient Details	
Your name	MITKO KARADELEV
Project title	CONSERVATION OF FUNGI AND PLANTS IN GREEK JUNIPER FORESTS OF THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA
RSG reference	35.05.07
Reporting period	August 2007 – August 2008 (project extended till November 2008)
Amount of grant	4,135 £
Your email address	mitkok@iunona.pmf.ukim.edu.mk
Date of this report	1 December, 2008

Project Summary

The goal of this project was to conserve the Greek Juniper forest and rare plant and fungal species in these forests on five localities in Macedonia.

The distribution area of Greek or Crimean Juniper (*Juniperus excelsa* M. Bieb.) reaches from Iran and Lebanon through Asia Minor, Crimea up to the Balkan Peninsula, and Macedonia lies in its eastern and northern borders of distribution. In terms of flora and fungi, the Greek Juniper forests in Macedonia are poorly studied. The few studies include preliminary research of lignicolous fungi on *J. excelsa* on some of the localities where its associations are best developed. Some rare fungi included in the preliminary red list of fungi of Macedonia (*Antrodia juniperina*, *Battarrea phalloides*, *Myriostoma coliforme*, *Pyrofores demidoffii*,) grow there. Several rare plant species (*Biarum tenuifolium*, *Asterolinon linum-stellatum*, *Celtis glabrata*, *Lilium candidum*) have been found in the Greek Juniper forests, mainly on Golem Grad islet.



The project goal was achieved by identification of rare and endangered plant and fungal species according to the regulations set by the European Strategy of Plant Conservation and the National Strategy for Biodiversity Protection. By following the aforementioned regulations and by data collecting and monitoring of the species, the project aimed at drafting a preliminary red list of plants, upgrading the existing preliminary red list of fungi, and long-term public awareness by distributing printed materials and media campaign.

Project Objectives

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Inventories of plant and fungal species in the five Juniper forest localities			√	So far, fungi and plants of these forests were poorly studied. Our research resulted in 135 finds of fungi (73 species), and 248 finds of plants (109 species). As expected, the number of mycorrhizal fungi is small since the dominant tree (<i>Juniperus excelsa</i>) has no mycorrhizal partners of fungi.

Database of fungi and plants in Juniper forest			√	More on www.esnips.com/web/rufford
Preliminary red list of fungi of Juniper forest as a supplement to the preliminary red list of fungi of Macedonia			√	According to IUCN 2005 categories and criteria, 60 fungal species have been selected.
Preliminary red list of plants of Juniper forest			√	According to IUCN 2005 categories and criteria, 12 plant species have been selected.
Increasing the number of IPAs (Important Plant Areas) following the criteria of the European Plant Conservation Strategy			√	So far a total of 42 IPAs have been identified in Macedonia). Calakli locality has been proposed as a new IPA locality in Macedonia.
Make available the collected data to the responsible bodies and relevant programmes			√	The collected data will be available to the authorities responsible for conservation (Ministry of Environment and Physical Planning, Ministry of Agriculture, Forestry and Water Economy); NATURA 2000 Biodiversity Programme; IPA Programme; National Strategy for Biodiversity Protection, etc.
Enrichment of the National Collections of Fungi and Plants with new data.			√	
Initiating a project to determine Important Mushroom Areas in Macedonia			√	Initiate a project before the Macedonian Mycological Society.
Raising public awareness		√		This was done via media campaign, presentations and printed material. More on www.esnips.com/web/rufford
Monitoring of the condition of fungi and plants at the selected localities			√	One visit to the localities per month (Aug 2007-Nov 2008), except in wintertime. In order to use the benefits of one more fungi collection season, the project was extended for two months.

Assessment of threat factors			√	
Proposals for protection of rare fungal and plant species in Greek juniper forest			√	

Localities

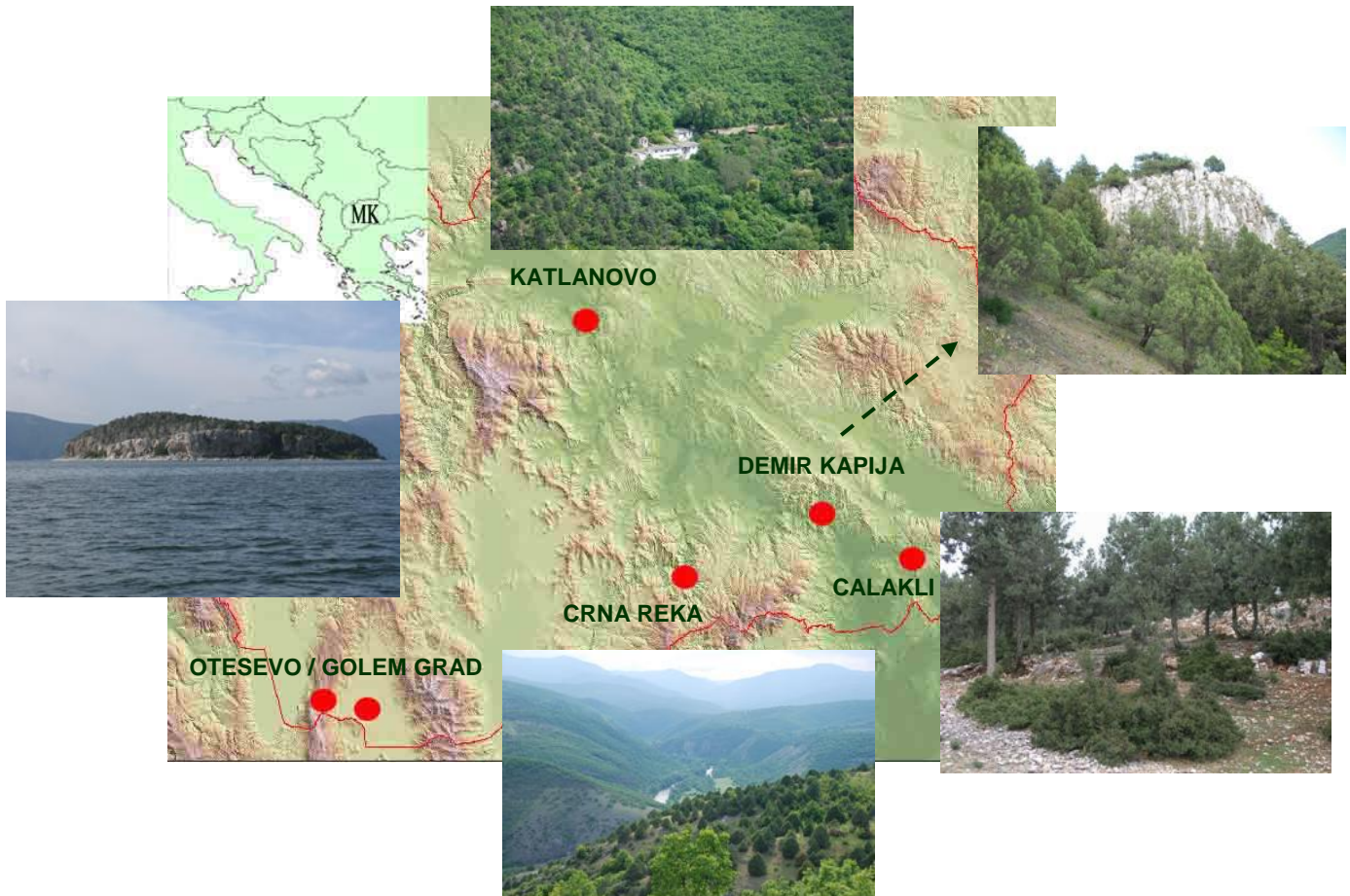
The five localities observed in this project belong to two regions: three are situated along the river Vardar and its tributaries, and two in the south-western part of the country (Lake Prespa region) in Macedonia.

a) **KATLANOVO**: Longitude: 21° 40' 59" East; Latitude: 41° 53' 39" North. Katlanovo region is situated approximately 30 km south of Skopje, at the confluence of Pcinja river into the Vardar river. The research was conducted on both sides of the Pcinja river, in the vicinity of St Bogorodica Monastery, where Greek juniper forms the typical association of *Pruno webbii-Juniperetum excelsae*, and in the vicinity of St Jovan Veterski, where Greek juniper is more scarce and grows together with *Buxus sempervirens*, *Phillyrea latifolia*, *Carpinus orientalis*, *Acer monspessulanum*, and *Quercus* spp.

b) **CALAKLI**: Longitude: 22°33'00" East; Latitude: 41°21'00"North. *Juniperus excelsa* and *Quercus coccifera* forest associations are present in the area. The research area belongs to Gevgelija-Valandovo valley, and occupies the southernmost areal of distribution of Greek juniper in Macedonia. Calakli village, located amidst Greek Juniper forest. Of all localities, this is the only one situated in forest.

c) **DEMIR KAPIJA**: Longitude: 22°14'56" East; Latitude: 41°24'18" North. The nature monument Demir Kapija gorge is the longest gorge (0.9 km) of the river Vardar, located in a belt of limestone and eruption rocks. Greek juniper grows in the gorge upper zone.

d) **OTESEVO and GOLEM GRAD islet** (Lake Prespa region): Longitude: 20°55'00" East; Latitude: 40°58'60" North. When the mountain of Galicica was declared a National Park, in 1958, both Otesevo and Golem Grad islet became parts of the NP. Otesevo is a tourist resort, and at the top of the hill Kale, at around 1,000 m altitude, there is almost pure Greek juniper (in some parts mixed with *Quercus trojana*). The Islet of Golem Grad is positioned about 2 km from the shore of Lake Prespa. It has elliptic shape with 700 m length and 400 m width, with total area of 21.9 ha. All the perimeter of the islet mostly consists of cliffs 20 to 30 m high. The islet is covered by Greek juniper forest, which belongs to two associations: *Biaro tenuifoliae-Juniperetum excelsae*, commonly known as wild juniper, and *Pruno webbii-Celtetum glabrae* - forest of almond and smooth nettle.



Map and photos of the Greek juniper localities in Macedonia

Project Activities

The five localities observed in this project belong to two regions: three are situated along the river Vardar and its tributaries, and two in the south-eastern part of the country. Collection of material and monitoring was performed once a month per region (a total of two visits per month).

- a. Collection of plant material and identification of rare and endangered plant species distributed in Greek Juniper forests
(August – November 2007; March – October 2008)
- b. Collection of fungi and identification of rare and endangered fungi distributed in Greek Juniper forests
(October – November 2007; March – November 2008);
- c. Monitoring the endangered species of plants and fungi
(Twice a month, once per region, August 2007 – November 2008);

- d. Creation of an on-line database programme for all identified plant and fungal species, with a special emphasis on rare and threatened species, according to IUCN criteria (Throughout the project's timeframe);
- e. Providing photographic material (During visits to localities);
- f. Preparing and publishing leaflets and a brochure (with rare and endangered species of plants and fungi, and instructions on sustainable use and preservation of plant and fungal species in general) (June – July 2008)
- g. Raising of public awareness via media (June – November 2008)
- h. Presentations on rare and endangered species of plants and fungi to the local communities (One in December 2007, one in July, and one in October 2008)
- i. Dissemination of printed material (July – November 2008)

From September 2007 until November the same year, all five Greek juniper localities were visited and plant and fungal material was collected and identified. Photographs were taken and samples of all found species were deposited in the collection. The identified species were included in the database, which has already been created specifically for this project. A large number of rare and threatened fungal species were found given that it was the peak season. A small number of autumn plants were collected, mainly monocotyledons.

Winter is an unfavourable season for collection of fungi and plants; hence, during wintertime we had consultations with the local population and made presentations on protection of Greek juniper and the fungal and plant species in the association. All literature resources available concerning juniper in Macedonia were assembled. A list of the total number of fungi (111) found in juniper forests in Macedonia was compiled.

In the forthcoming period, there were field activities for collection of spring fungi and plant species and preparations for the brochure. During May and June 2008, all five juniper forest localities were visited. A special emphasis was laid on Golem Grad Islet, where two visits were made due to the obtained information that this year a large flock of cormorants had come there and made nests on the juniper trees. Many of the trees, particularly those on the shore, were drying out because of the cormorant guano. A meeting was organised with Ministry of Environment and Physical Planning and Galicica National Park and local representatives; the main topic was protection of Golem Grad islet and the measures that could be undertaken.

The project activities continued with collection of large material of spring fungi and plant species, compiling of a preliminary red list of fungi and plants, enrichment of the National Collection of Fungi and Plants with new material, as well as the database programme of all identified plant and fungal species.

In June and July a preliminary red list of fungi and plants was compiled according to IUCN categories and criteria, the National Collection of Fungi and Plants was enriched with new material, and data input was made in the databases of all identified plant and fungal species in all juniper associations envisaged with the project.

In the period from August until end of October, the leaflet and brochure were prepared and disseminated to the beneficiaries accordingly. The printed material contains comprehensive data on the localities, associations, the fungal and plant diversity as well as rare and threatened species.

All project-related information (brochure, leaflet, database and pictures) is available on the following webpage: <http://www.esnips.com/web/rufford>

Unforeseen Difficulties That Arose During the Project

During the implementation of the project activities, it was an election year in our country, which caused difficulties in organisation of meetings, which were to be attended by ministry representatives, and resulted in lack of government interest in our project activities. This particularly affected the successful completion of one of the anticipated project objectives – generating an action plan for conservation and proposals for protection.

Project Outcomes

1. Key threats and compiled red lists of plants and fungi in Juniper forest

General threats to biodiversity in Macedonia in general are as follows; the low level of education and lack of knowledge resulting in low public awareness; low economic status of the population, which results in excessive exploitation of natural resources for gaining economic benefit; in compliance with and lack of enforcement of the current laws and legal acts; fires during summer season; civil engineering - use of land for a different purpose, damaging the habitats and animal populations, and pollution due to improper handling of refuse; illegally built tourist facilities, inappropriate infrastructure of many hotels and holiday resorts, and improper conduct on the part of tourists.

Specific threats to flora and fungi in Greek Juniper forests by locations:

- Calakli village near Valandovo: the village is a threatened area since there is mass exploitation of juniper trees by the inhabitants. They also burn branches for production of burnt lime. Intensive agriculture is a minor threat to biodiversity in juniper forests in this area. Sheep and goats grazing of low vegetation and young trees is also a threat worth mentioning.



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Mass exploitation of juniper trees by Calakli inhabitants: cut and burned branches for production of burnt lime.

- Katlanovo: about 30 % of Greek Juniper trees in Katlanovo are infected by *Pyrofomes demidoffii*. This is the most dangerous parasitic species on Greek juniper and Katlanovo is the region where this fungus is most common, and even attacks young trunks.



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Pyrofomes demidoffii on living juniper tree in Katlanovo

- Golem Grad and Otesevo: there is pressure from tourists on Golem Grad, especially in summertime, and there is the threat by cormorants. In 2008 a large flock of cormorants came there and made nests on the juniper trees. Many of the trees, particularly those on the shore, were dying because of the cormorant guano.



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Cormorants nesting on Juniper trees on Golem Grad islet

Red Lists of Species

One of the project results was compiling preliminary red lists of fungi and plants of Juniper forest. The fungi red list we made is a supplement to the preliminary red list of fungi of Macedonia (Karadelev, 2000). The lists were compiled according to IUCN 2005 categories and criteria.

a) Red list of plants

Genus	Species	Author's abbrev.	Category of threat
Asterolinon	linum-stellatum	(L.) Duby	NT
Biarum	tenuifolium	(L.) Schott.	CR
Celtis	glabrata	L.	CR
Ephedra	fragilis Desf. ssp. campylopoda	C.A. Mey.	VU
Euphorbia	characias	L.	EN
Iris	pumilla	L.	NT
Juniperus	excelsa	L.	EN
Lilium	candidum	L.	VU
Lilium	heldreichii	Freyn	CR
Quercus	trojana	Webb	NT
Valeriana	dioscoridis	Sibth. & Sm.	EN
Cerinth	glabra	Mill.	VU

b) Red list of fungi

Genus	Species	Author's abbrev.	Category of threat	B: Basidiomycota A: Ascomycota
Agaricus	mediofuscus cf.	(F.H. Møller) Pilát	DD	B
Aleurodiscus	cerussatus	(Bres.) Hohn. & Litsch.	DD	B
Amanita	echinocephala	(Vitt.) Quél.	NT	B
Amanita	vitadinii	(Moretti) Vitt.	VU	B
Amylostereum	laevigatum	(Fr.) Boidin	NT	B
Antrodia	juniperina	(Murrill) Niemelä & Ryvarde	EN	B
Arrhenia	lobata	(Pers.:Fr.) Kuhn.	DD	B
Athelia	neuhofii	(Bres.) Donk	DD	B
Auricularia	auricula-judae	(Bull.) J. Schröt.	NT	B
Battarrea	phalloides	(Dicks.) Pers.	CR	B
Bovista	aestivalis	(Bonord.) Demoulin	DD	B
Bovista	dermoxantha	(Vittad.) De Toni in Sacc.	DD	B
Bovistella	radicata	(Durieu & Mont.) Pat.	DD	B
Cheilymenia	stercorea	(Pers.) Boud.	DD	A
Conocybe	siennophylla	(Berk. & Broomeo) Singer (ss. auct)	DD	B
Coprinus	hemerobius	Fr.	DD	B
Cortinarius	glaucopus	Fr.	DD	B
Flammulaster	fusispora	(Orton) Watl.	DD	B
Ganoderma	lucidum	(Curtis) P. Karst.	VU	B
Geastrum	campestre	Morgan	VU	B
Geastrum	corollinum	(Batsch) Hollós	VU	B
Geastrum	coronatum	Pers.	VU	B
Geastrum	fimbriatum	Fr.	VU	B
Geastrum	lageniforme	Vittad.	VU	B
Geastrum	minimum	Schwein.	VU	B
Geastrum	pectinatum	Pers.	VU	B
Geastrum	triplex	Jungh.	VU	B
Gloeocystidiellum	convolvens	(P. Karst.) Donk	DD	B
Gloeocystidiellum	karstenii	(Bourd. & Galz.) Donk	DD	B
Hymenochaete	fuliginosa	(Pers.) Bres.	VU	B
Hyphoderma	obtusum	J. Erikss.	DD	B
Hyphodontia	alienata	S. Lundell) J. Erikss.	DD	B
Hyphodontia	barba-jovis	(Fr.)John Erikss.	DD	B
Hyphodontia	juniperi	(Bourdod & Galzin) J. Erikss. & Hjortstam	EN	B
Laeticorticium	macrosporium	(Bres.) Erikss. & Ryv.	DD	B
Langermannia	gigantea	(Batsch) Rostk.	CR	B
Lepiota	alba	(Bres.) Sacc.	DD	B
Lepiota	echinella	Quél. & Bernrd	DD	B
Lepiota	kuechneri	Huijsman ex Hora	DD	B
Lepiota	kuehneriana	Locq.	DD	B
Lepiota	oreadiformis	Velen.	DD	B
Leptoglossum	spathulatum	(Fr.: Fr.) Velen.	DD	B
Leucogyrophana	mollis	(Fr.) Parmasto	DD	B
Meruliopsis	hirtella	(Burt.) Ginns	NT	B

Mycena	juniperina	Aronsen	CR	B
Mycena	meliigena	(Berk. & Cooke) Sacc.	DD	B
Myriostoma	coliforme	(With.: Pers.) Corda	VU	B
Omphalina	baeospora	Singer	DD	B
Peniophora	junipericola	J. Erikss.	NT	B
Phaeomarasmius	erinaceus	(Fr.) Kuchner	NT	B
Phellinus	ferruginosus	(Schrad.) Pat.	NT	B
Phellinus	lundelli	Niemelä	DD	B
Pleurotus	eryngii	(DC: Fr.) Quél.	CR	B
Pleurotus	ostreatus	(Jacq.) P. Kumm.	EN	B
Pyrofomes	demidofii	Lév.) Kotl. & Pouzar	EN	B
Ramariopsis	clavuligera	(R. Heim) Corner	DD	B
Sphaerobolus	stellatus	Pers.	DD	B
Terrana	caerulea	(Lam.) Kuntze	NT	B
Tricholoma	equestre	(L.) P. Kumm.	DD	B
Volvariella	caesiotincta	P. D. Orton	DD	B

EX - extinct
 CR - critically endangered
 EN - endangered
 VU - vulnerable
 NT - near threatened
 DD - data deficient

IUCN (2005): <http://app.iucn.org/webfiles/doc/SSC/RedList/RedListGuidelines.pdf>

2. Proposals for protection of rare and threatened fungi and plants on five Greek juniper localities

Localities:

- Calakli village near Valandovo is a threatened area due to the fact that there is mass exploitation of juniper trees by the inhabitants. In view of one of our project objectives - increasing the number of IPAs (Important Plant Areas) following the criteria of the European Plant Conservation Strategy, we have proposed Calakli locality to be a new IPA locality in Macedonia.
- *Pyrofomes demidofi* is the most dangerous pathogen on Greek juniper and Katlanovo is the region where this fungus is most common. The project team did mechanical removal of the fruiting bodies from the young trees during the visits to the locality.
- In Otesevo and Golem Grad islet there is pressure from tourists especially in summertime, and there is the threat by cormorants whose guano causes decay of the juniper trees on the islet shore. At the project team meetings with the National Park management it was decided that the NP will take care of the issue by

observation of the number of cormorants and their fluctuation, the level of damage to trees, etc.

Protection of specific fungi and plant species:

The following fungi species are rare and specific, and their protection is invaluable for the mycodiversity of the region: *Antrodia juniperina*, *Langermania gigantea*, *Pyrofomes demidoffii*, *Myriostoma coliforme* and *Battarraea phalloides*.

The important rare plant species are as follows: *Celtis glabrata*, *Euphorbia characias*, *Lilium candidum*.

Antrodia juniperina

- Global distribution: Very rare species in Europe, the only other known location is Spain.
- Distribution in Macedonia: Growing on dry Greek juniper branches. Found in Golem Grad islet, Otesevo, Katlanovo, Calakli and Demir Kapija.
- Euro-index: Not included.
- MAK-index: RS (rare species): Macedonian Red List.
- Literature: Karadelev (1993, 1994, 1995)



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Battarraea phalloides

- Global distribution: Rare species in Europe, with scarce distribution although it is known from a number of countries such as the Czech Republic, Serbia, UK, Spain, Italy, Armenia.
- Distribution in Macedonia: Rare species, known only from three localities (already extinct in St Jovan Bigorski Monastery surroundings and Lake Dojran, and common on Golem Grad islet). Grows on sandy soil.
- Euro-index: D-Group; European Red List of Threatened Species.
- MAK-index: RS (rare species): Macedonian Red List.
- Literature: Lindtner (1932) and Karadelev (2002).



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Myriostoma coliforme

- Global distribution: Not rare in Europe, known from thirteen countries.
- Distribution in Macedonia: Species with scarcely studied distribution. Known only from Golem Grad islet and Katlanovo.
- MAK-index: RS (rare species): Macedonian Red List.
- Literature: Karadelev (2002).



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Langermania gigantea

- Global distribution: Not rare in Europe.
- Distribution in Macedonia: Species with scarcely studied distribution. To date known only from three localities.
- MAK-index: RS (rare species): Macedonian Red List.
- Literature: Unpublished data by the author.

Pyrofomes demidoffii

- Global distribution: Very rare species in Europe, the only other known location is Bulgaria.
- Distribution in Macedonia: Dangerous parasite on dry Greek juniper branches. Found in Golem Grad islet, Calakli, Katlanovo and Demir Kapija.
- Euro-index: Not included.
- MAK-index: RS (rare species): Macedonian Red List.
- Literature: Karadelev (1993, 1994, 1995)

Celtis glabrata

- Global distribution: A rare small tree of the Caucasus and Asia Minor.
- Distribution in Macedonia: Only on Golem Grad island.
- MAK-index: None.
- Literature: Micevski (1993)



Euphorbia characias

- Global distribution: Mediterranean Europe.
- Distribution in Macedonia: Very rare. Found around Lake Dojra
- MAK-index: None.
- Literature: Micevski (1998)

Lilium candidum

- Global distribution: South-western Asia. Naturalised in Europe around the Mediterranean.
- Distribution in Macedonia: Only on Golem Grad island.
- MAK-index: None.
- Literature: Micevski (1971)



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3. Raising public awareness

This was done via presentations, media campaign, and printed material. The brochure and the leaflet disseminated among the public and the stakeholders for the purpose of raising awareness of plant and fungi conservation in Juniper forest are available on the following webpage www.esnips.com/web/rufford.

Three visits were paid to Calakli village: 8.12.2007, 17.01.2008 and 16.02.2008. With the local population we discussed the significance of this association as one of the rare ones in Europe and the species of fungi and plants found there: Two presentations on the importance and protection of juniper were made in Calakli village shop (8.12.2007 and 12.07.2008). The attendance and the interest were excellent.

In October 2008 a meeting was organised with Ministry of Environment and Physical Planning and Galicica National Park and local representatives, with the main topic - protection of Golem Grad islet and the measures to be undertaken.



Workshop in Calakli in progress

Involvement of local communities and their benefits from the project

The local community in Calakli village was involved in organisation of the project team meetings and presentations before the population for this is the only settlement in Juniper

forest and they have an immediate impact on the juniper association. Leaflets and brochures were also disseminated. They learned about the rare and threatened species in the association and the significance of the association as being one of the rarest ones in Macedonia.

Next Steps

- Enrichment of the National Collections of Fungi and Plants with new data;
- Expanding the research in Crna Reka and other minor juniper tree localities;
- Initiating a project to determine Important Mushroom Areas in Macedonia – submission of a project proposal to the Macedonian Mycological Society.
- Study for valorisation of Calakli natural values;
- Proposal for declaring Calakli a strict nature reserve (1st category according to IUCN), with a draft-law;
- Plan for management of the future reserve, based on international norms, standards and criteria for management of conservation and sustainable development of natural and cultural values of the locality ecosystems;

Sharing of project results

The project results will be made available to the authorities responsible for conservation and relevant programmes as follows: Ministry of Environment and Physical Planning, Ministry of Agriculture, Forestry and Water Economy; NATURA 2000 Biodiversity Programme; IPA Programme; National Strategy for Biodiversity Protection, etc. Leaflets and brochures on threatened and rare plant and fungi species in juniper forest were also disseminated among the stakeholders and the local population.

Timeframe for RSG project

The anticipated project duration was between August 2007 and August 2008. In order to take advantage of the benefits of one more fungi collection season, the project was extended by two months.

Budget: a breakdown of budgeted versus actual expenditure and the reasons for any differences. Local exchange rate used: 1 GBP = 90.4 MKD (November 2007)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Equipment				
Garmin GPS 60	50 GBP	178 GBP (16,108 MKD)	+ 128 GBP	Additional funds provided by MMS field project.
Notebook Hp6720s	600 GBP	602.8 GBP (54,500 MKD)	+ 2.8 GBP	
LCD projector Epson EMP-54	400 GBP	443.5 GBP (40,100 MKD)	+ 43.5 GBP	Additional funds provided by scientific project of the project leader.
Digital camera Sony DSC-T10	400 GBP	348.4 GBP (31,500 MKD)	- 51.6 GBP	The remaining funds were used for the other project equipment.
Consumables				
Paper, HP Laser Jet print cartridge	40 GBP	42 GBP (3,800 MKD)	+ 2 GBP	
Laboratory and field - trip material (paper bags, aluminium foil, plastic vacuum bags, reagents, microscope slides and cover glasses for microscopy, needles, forceps, laboratory sterile blades, etc.).	50 GBP	50 GBP (4,500 MKD)		
Fuel costs (800 km per month / 9 months + pay tolls)	560 GBP	614 GBP (55,500 MKD)	+ 54 GBP	Additional funds provided by MMS field project.
Telephone and internet costs for communications with team members, NGOs and local authorities.	70 GBP	73 GBP (6,600 MKD)	+ 3 GBP	
Printing and publishing expenses				
Printing and publishing of leaflets	35 GBP	35 GBP (3,164 MKD)		
Printing and publishing of brochure (80 photographs, 100 pages, kunzdruk paper 150 g, full colour) in 250 samples, (VAT and services included)	850 GBP	850 GBP (76,840 MKD)		
Subsistence costs				

Project coordinator/expert for fungi (18 days x 15 GBP)	270 GBP	270 GBP (24,408 MKD)		
Expert for plants (18 days x 15 GBP)	270 GBP	270 GBP (24,408 MKD)		
Two young researchers (18 days x 15 GBP x two persons)	540 GBP	540 GBP (48,816 MKD)		
TOTAL	4,135 GBP	4,316.7 GBP	181.7GBP	Additional funds provided by MMS field project and scientific project of the project leader.

Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The RSGF logo was used in the publications resulting from this project – a brochure and a leaflet, as well as in the verbal Power Point presentations. RSGF was mentioned as the funding institution for our current project in all our communication with the authorities responsible for conservation and relevant programmes - Ministry of Environment and Physical Planning, Ministry of Agriculture, Forestry and Water Economy - as well as with the local population.

Project Team



Photo of team in the field

Mitko Karadelev, professor at the Faculty of Natural Science and Mathematics in Skopje; project leader and chief mycologist for the project.

Mitko Kostadinovski, professor at the Faculty of Natural Science and Mathematics, participated in identification of plant material.

Katerina Rusevska, MSc in biology. She was involved in creating the on-line data-base for plants and fungi, collection and identification of scientific material, and compiling the printed materials.

Sofce Spasikova, biological engineer. One of her assignments in the project was collection and identification of fungal material. Her background in work with NGOs and education of local population contributed in coordination of the presentations before the local population and the media campaign. She also participated in compilation of the printed materials.

Daniela Mitic-Kopanja, BSc in biology. She provided laboratory assistance for the project.

Kristina Zimbakova, philologist, assisted in project reports editing, and public awareness activities.

I agree to this report being published on the Rufford Small Grants website

Signed (or print name)

