

Save Kresna Gorge



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Former EMERALD and now NATURA 2000 site
14 000 ha





1997

Strict natural reserve

in the southern part

of the Kresna Gorge

and

CORINE Biotops

and

Emerald Site

– the whole gorge

International road and

railway to Greece

passing through the

gorge

INVERTEBRATES

Nematoda	23
Gastropoda	14
Crustacea	11
Arachnida	201
Myriapoda	17
Odonata	21
Raphidioptera	3
Neuroptera	48
Coleoptera	629
Heteroptera	419
Hymenoptera	136
Trichoptera	71
Plecoptera	12
Ephemeroptera	33
Macrolepidoptera	942
TOTAL (min.)	2580



BIODIVERSITY

Fauna



Биоразнообразие
на Кресненския пролом
П. Берон (ред.)

Biodiversity
of Kresna Gorge
P. Beron (Ed.)



VERTEBRATES

Fish	14 (6%)
Amphibians	10 (67%)
Reptiles	21 (63%)
Birds	232 (58%)
Nesting	135
Migrant (<i>via Aristotelis</i>)	156
Mammals	57 (55%)
Small mammals	27
Bats	18
Large mammals	12
TOTAL	333 species

BIODIVERSITY

Fauna



Biodiversity value

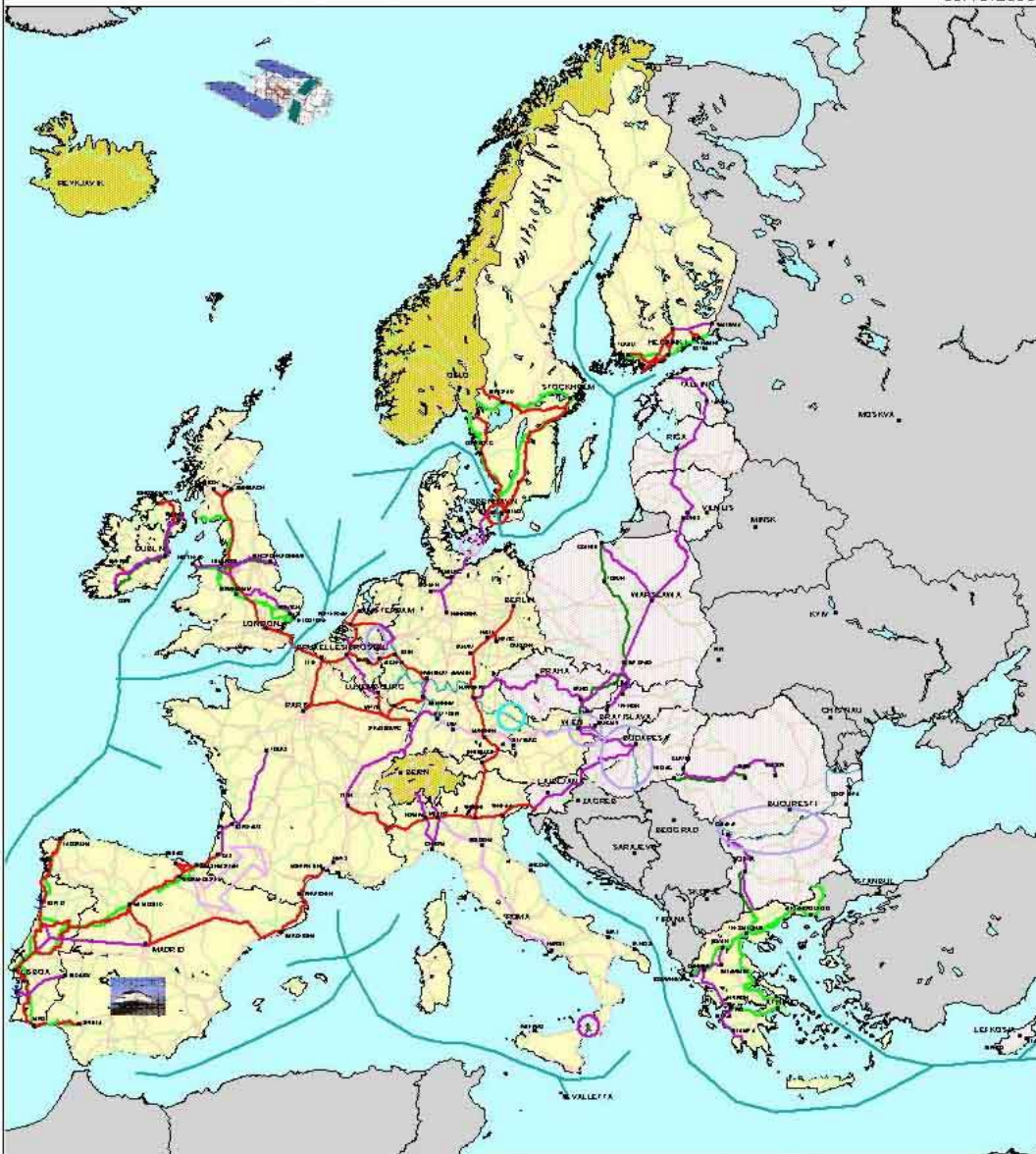
KRESNA GORGE is a:

- **Bottleneck for local animal movements and seasonal migrations**
- **Part of the transitional zone between Eurosiberian and Mediterranean Subregions of the Palearctic Region**
- **Northern border for many mediterranean species**
- **Refuge of many endemic and subendemic species**
- **Natural bio-corridor**
- **The richest biodiversity region in Bulgaria!**
ca. 3000 species (1/10 of Bulgaria' s faunal biodiversity)
exp. > 3600 species of animals!
- **Important Herpetofaunal Area**
 - **Important Bird Area of global conservation importance representative for the Mediterranean zone**
 - **Bottle neck site along the bird migration route Via Aristotelis.**

Oriental plane forests 92C0

**Greek juniper tickets
and forests 9560**



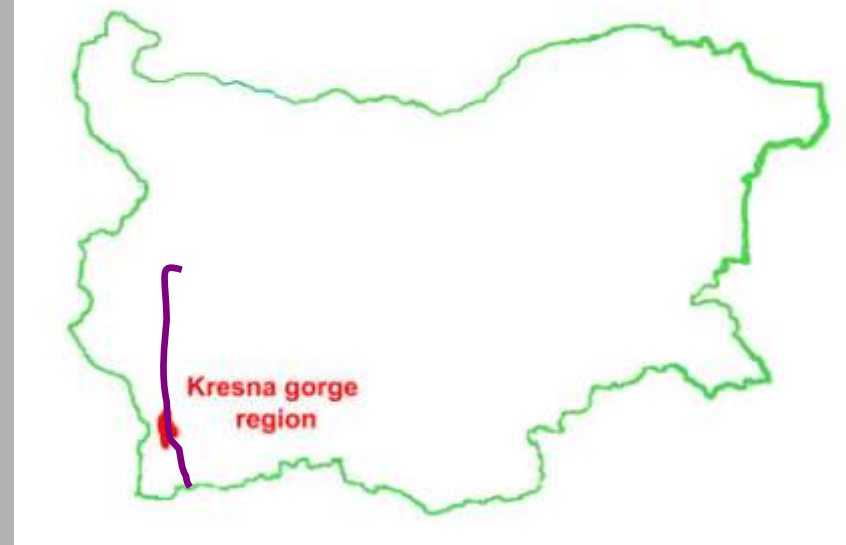


- "Essen" Rail project
- "Essen" Road project
- Rail project (2001)
- Road project (2001)
- Rail project (2003)
- Road project (2003)

- Inland waterway project 2001
- Inland waterway project (2003)
- Motorway of the sea (2003)
- ✕ Airport project
- ⚓ Port project



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**The Struma motorway
- a priority project
according to the
Community Guidelines
on Trans-European
Transport Network**

1997-1999

- **A planning of a motorway to Greece started in 1997 part of European Transport Corridor No. 4.**
- **Only alternatives inside of the Kresna Gorge included and the “salami approach” applied**

NGO response

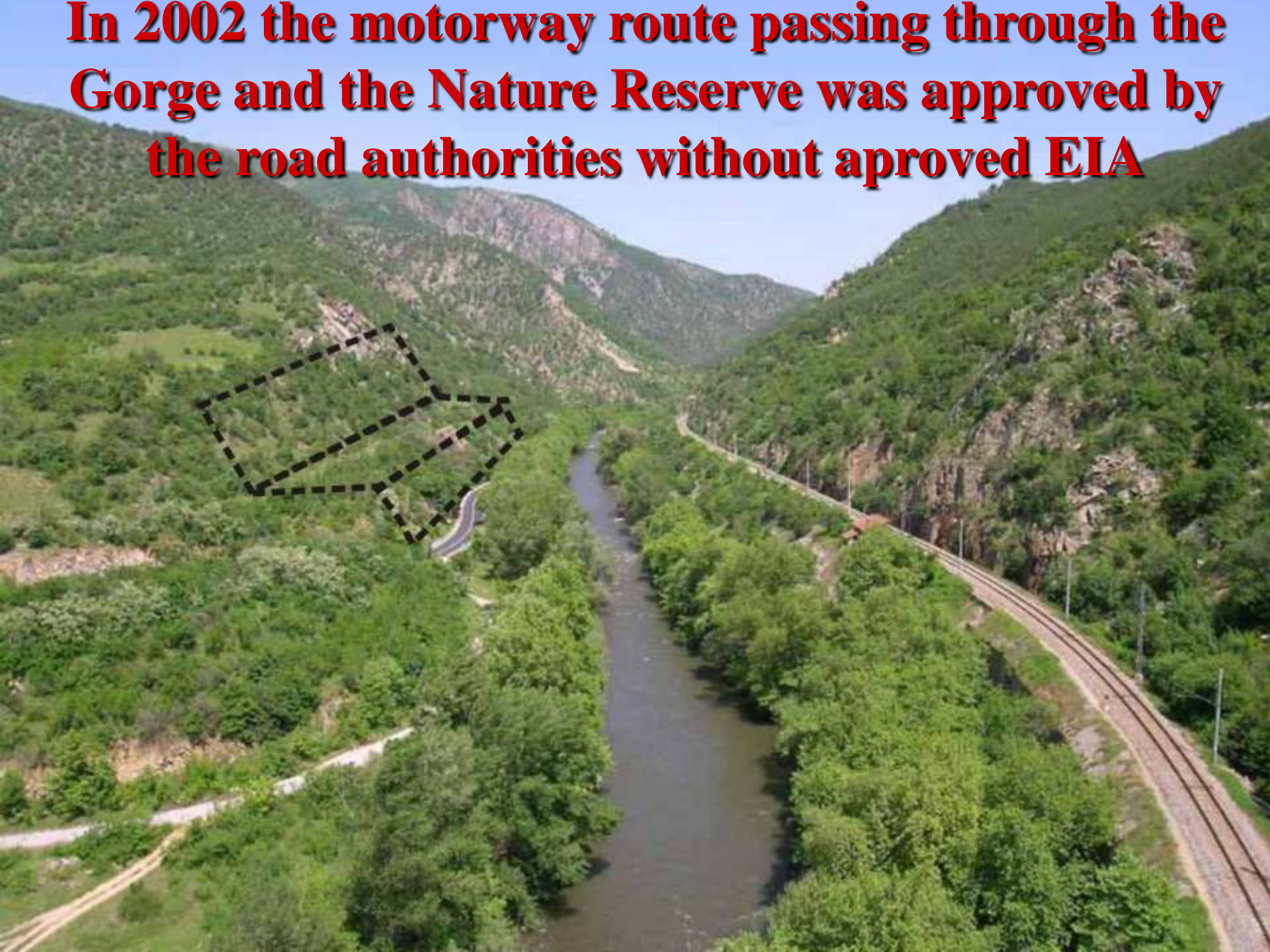
- **Save Kresna Gorge coalition – more than 15 NGOs**
- **Signals to the EU commission and regulars communication with DG Env, meetings with the Minister of environment, letters to the MEPs – parliamentary questions initiated, presentations during Green Week in the European Parliament, support from CEE Bank Watch, WWF -EPO and BirdLife International**

Results - till 1999 several EIA reports prepared by the road authorities all rejected by the Ministry of Environment after signals of the NGOs to the European Commission for serious violations of the EU legislation (Bulgaria was

1999-2003

- **PHARE CBC Programme provided funding for a feasibility study, EIA, detailed design and tender dossier for the motorway.**
- **The amount of the grant is 3,342,450 Euro.**
- **Violation of the EU *acquis***
 - ***Design of a motorway inside the Kresna Gorge in contradiction with the Habitat Directive and Bern Convention – no alternatives.***
 - ***No public participation or access to public information.***
 - ***Environmental concerns not taken into account.***
 - ***EIA and public consultations carried out after the feasibility study and alternative roadbeds finalization.***
 - ***EIA reports prepared under the PHARE project are of poor quality.***
 - ***Biased recommendations of the EIA reports not based on environmental principles.***

In 2002 the motorway route passing through the Gorge and the Nature Reserve was approved by the road authorities without approved EIA



SOS

Construction of a motorway

through the gorge

threatened its status

as a future NATURA 2000 site

Creation of a migration barrier and fragmentation of the habitats

Direct
destruction of
the habitats
and habitats
of species





Increasing the animal road death



- Detailed road impact studies have never been performed in Bulgaria or adjacent countries.
- Dead animals and skins were collected once a week from 1st April till 30th October 2003 and in 2004.
- Members of NGO's Balkani, Tetida and Bulgarian Herpetological Society attended in the road samplings.
- Ca. 24 field walks/year along the two sides of the road in the gorge (18 km).
- All victims were collected in separate meshes and stored in a freezer for further analysis.
- Ca. 1/10 of the samples were identified to species level in lab conditions.



- The road was divided and marked in ca. 80 sections.
- All victims were counted for each section and further summarized for a given period (day, week, month).
- The skins were identified, aged and sexed to best possible level “*in situ*”.
- The skins were collected and the distance to the banks and the nearest culverts/underpass was recorded.

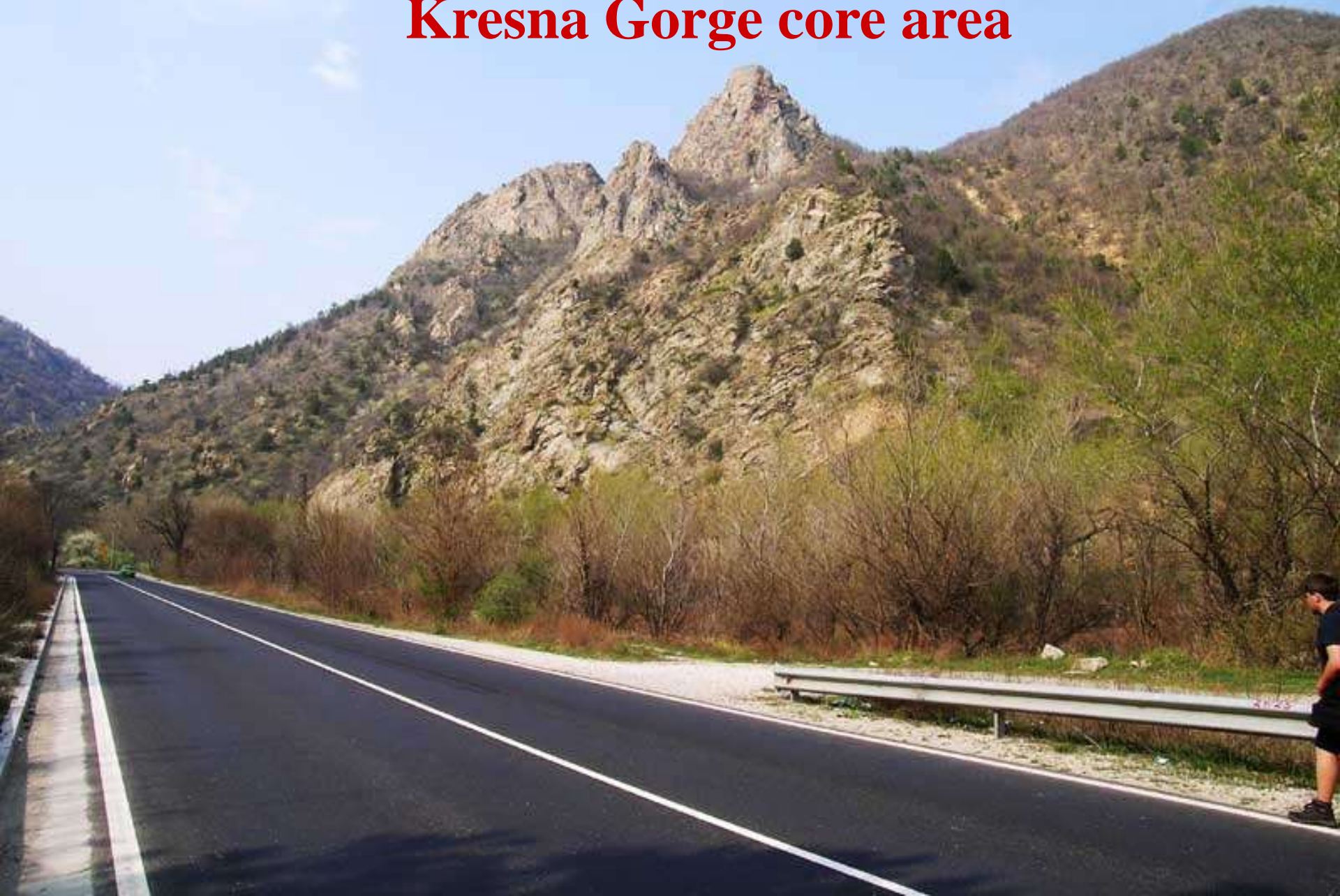
- On average about 140 vertebrate animals were killed for a week (relative assessment).
- The speed of animal movement is correlated with the place of death. Faster animals (e.g. lizards) were found smashed evenly on the road breadth. Slower animals (e.g. tortoises) were found close to the banks. They rarely cross the road alive. relative abundance of the species.
- Juveniles were found killed in larger proportions compared to other age classes due to higher dispersal activity.
- Bat victims were found as numerous as birds though the lower traffic intensity at night.



ROAD KILLS IN KRESNA GORGE 2003*

Amphibians Toads (214), Frogs (161)	375	<i>B. viridis</i> (184) <i>Rana</i> spp. (128)
Reptiles Snakes (912), Lizards (851), Tortoises (59)	1822	<i>L. viridis</i> (841) <i>N. tessellata</i> (531) <i>T. vermicularis</i> (150) <i>Testudo</i> spp. (59), <i>C. caspius</i> (51)
Birds	215	mostly passerines
Mammals Small mammals (547) Bats (187) Large mammals (25)	759	Dormice (70), Hedgehog (29) <i>Martes</i> spp. (17)
TOTAL victims	3171	
INVERTEBRATES	Several millions	

A rise in pollution levels (air and noise) in the Kresna Gorge core area



**Destruction of agricultural
lands and recourses for
sustainable agriculture**



- **In 2001 NGOs send a signal to the BERN Convention Secretariat**
- **In 2002 a mission was send to Bulgaria after a decision of the Bern Convention Standing Committee (every December)**
- **At the time of 2002 Kresna Gorge Case become a hot topic at the European level**
- **However PHARE project failed to develop feasible alternatives outside of the Gorge**
- **In 2002 NGOs were compelled to develop these alternatives**

THE SOLUTION

The only solution, saving at the same time the unique biodiversity, the health and interests of local people and the interests of international infrastructure development is a motorway, which will pass outside the Kresna gorge.

Such an alternative already exists!



This is the road outside of the Kresna gorge - support III

The alternative motorway route is 25 m wide with 90 km/h speed. It has two variants passing about 7 km East of the Kresna gorge, which avoids the most valuable nature areas, the mineral water springs (situated in the region), as well as the existing gas pipeline. The technical characteristics are according to the Bulgarian standards for motorways and are as follows:

General characteristics

	Variant 1	Variant 2
Total horizontal length	29.410 m	37.320 m
Section on the ground	12.845 m	17.950 m
Section in viaducts and bridges	5.640 m	5.440 m
Section in tunnel	10.925 m	13.930 m
Maximum slope	5.5%	5.5%
Section in zones of nature conservation value	1.880 m	0 m
Sections in zones of nature conservation value in tunnel	1.250 m	0 m

The alternative is elaborated by "Votari Consulting" Company under the project of the Bulgarian Society for the Protection of Birds/BirdLife Bulgaria, financed by the Nando Perich Foundation and in close cooperation with the NGO: Balkan Wildlife Society, ECO-CLUB 2000 and Wilderness Fund.







Advantages of the NGO's alternatives:

- Do not affect critical habitats and do not create migration barriers**
- Relocate the high-speed traffic out of the Kresna Gorge and decrease the level of road animal death and pollution**
- The existing road will be used for low speed local traffic**
- Preserve the local villages and the agricultural lands**

In 2002

22nd Standing Committee

of the Bern Convention

**adopted recommendation 98 on the
construction of the Struma Motorway
through the Kresna Gorge**

“Recommends that the Bulgarian Government:.

•3. ... continue studying alternative routes located outside the gorge that would respect the natural constraints as far as possible and provide for the integration of engineering works and compensate for environmental impact; ...

• 6. provide for the downscaling and rehabilitation of the existing road, restoring its initial status of a local road used by the farming community and tourists and thus ease current pressure on the site, with suitable planning to revitalise damaged areas”

“Recommends that the Bulgarian Government:

- 8. select the zone concerned for the Emerald Network, by extending the central site to cover the gorge entrance and exit areas, to take stronger account of the biological functioning of the natural habitats and the connecting areas between the sites (ecological network of core area plus complementary areas);**
- 9. ensure that adequate legal protection is given to the whole of the gorge site and its development areas.”**

In 2004

24th Standing Committee

of the Bern Convention

opened a case file

due to lack of progress

in implementation

of the recommendation

2007-2011 – EU membership

- In 2007 EIA and art. 6 (3) assessments developed by the Government**
- All alternatives included + new one demanded by the ecological initiative committee of local villagers in Kresna town – full tunnel of 13 km (with on small break at Breznitza river)**
- Government asked NGOs to provide experts support for development of the Article 6 (3) assessment**

Result – in 2008 issued a final EIA and NATURA permit for the motorway approving the construction in full tunnel (with several ventilation openings) alternative as the only acceptable for environmental and seismological reasons

2007-2011 – EU membership

- In 2010 a Monitoring committee for Struma motorway was established at the road agency with participation of governmental bodies and NGOs**
- Detailed design of the tunnel is undergoing and should be finalized in 2012**
- Cost benefits analyses showed that in hard relief and strong seismic activity of the region (strongest earthquake up to 8,5 Richter) the full tunnel is the cheapest option**
- Construction should take place between 2013 - 2017**

Save Kresna Gorge Campaign

