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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

**Group of experts
on the conservation of Amphibians and Reptiles**

Malmö (Sweden), 26-27 September 2003

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Report

*Document
prepared by
the Directorate of Culture and Cultural and Natural Heritage*

The Standing Committee is invited to:

1. thank the Swedish conservation authorities for their financial and operational support in the organisation of the meeting;
2. take note of the report of the meeting;
3. take note, in particular of the Recommendations of the Group of experts that Action plans be made at the European scale for the following species:

- **Amphibians**

Triturus cristatus complex;

Proteus anguinus ;

Rana latastei

Rana lessonae

- **Reptiles**

Testudo hermanni hermanni

Lacerta agilis (Northern range)

Lacerta viridis complex

Elaphe quatuorlineata

Vipera ursinii complex.

4. take note of the Recommendation of the Group of experts that action plans be urgently made at the national level for :

- **Amphibians**

Euproctus platycephalus (Italy);

Pelobates fuscus insubricus (Italy)

- **Reptiles**

Testudo marginata (Albania, Greece)

Trionyx tringuis (Turkey)

Natrix natrix cetti (Italy)

Natrix natrix schweizeri (Greece)

Vipera ursinii rakosiensis (Hungary);

5. examine and, if appropriate, adopt the following draft Recommendations :

- on *Testudo graeca graeca* in Spain (appendix 5 to the present report);
- on *Trionyx triunguis* in Turkey (appendix 6 to the present report);
- on *Elaphe longissima* in Austria, Czech Republic, Germany and Ukraine.

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1. Opening of the meeting by the Chairman

In absence of the Chair, the Vice-Chair, Mr Richard Podloucky welcomed participants (a list of which is included in appendix 1), opened the meeting and thanked the Swedish conservation authorities for their excellent organisation.

2. Presentation of the meeting by the Secretariat

The representative of the Secretariat recalled the main work carried out by the Group since the first meeting on marine turtles in 1986, which led to the creation of the Group. He mentioned in particular the many recommendations adopted by the Standing Committee following action from the Group and the active role of the Committee in examining file cases relevant to herpetile conservation.

However the 46 Action plans that were to be compiled in collaboration with IUCN European Herpetiles Specialist Group and SEH failed to materialise and this hindered the effectiveness of the Group.

The Secretariat noted that marine turtle conservation was now being dealt with under a different framework (regular conferences on marine turtles in the Mediterranean, in collaboration with the Barcelona and Bonn Conventions).

3. Adoption of the Agenda

The agenda was adopted as it appears in appendix 2.

The Group thanked Swedish participants for their interesting presentations on conservation action on native amphibians:

- “Amphibian-friendly measures in the Ravlunda military base” by major Kennet Andersson;
- “Long-term population studies on *Rana dalmatina* in southern Sweden” by Ingemar Ahlén;
- “Conservation of great crested newt *Triturus cristatus* in Sweden” by Jan Malmgren;
- “Implementation of Action plans for threatened amphibians in Skåne” by Christer Persson,

as well as Mr Andrén and Mr Nilson for their presentations on other points in the agenda.

4. Progress in amphibians and reptile conservation since the last meeting (May 1998) – National Reports

Written national reports were presented by the following states (Austria, Czech Republic, Estonia, France, Greece, The Netherlands, Romania, Slovakia, Sweden, Switzerland, Turkey) (the reports are found as appendix 3 to this report).

Some points of particular relevance was the slow but constant erosion of many amphibians population in some areas of Europe (i.e. the Netherlands), a certain stability of common species in Hungary, a severe decline of many amphibians in Romania through habitat degradation and destruction and the unexplained population crash of some populations (i.e. *Lacerta lepida* in France).

Other phenomena of interest were the increasing threat from new invasive alien species (i.e. *Xenopus laevis* in France and United Kingdom) and illegal collection (i.e. *Testudo* and *Vipera* species in Romania).

5. Urgent cases requesting attention by governments

➤ Milos viper : implementation of Recommendation No. 84 (2000)

The Secretariat recalled that the conservation of this threatened species had been reexamined by the Standing Committee for several years and that an on-the-spot appraisal had been carried out in 2000.

Dr Göran Nilson made a presentation of the biology and status of the Milos viper (see appendix 4), noting in particular its vulnerability to habitat change and the importance of road kills.

An important part of the critical zone was burnt since the on-the-spot appraisal and will take many years to recover.

The Delegate of Greece presented the report found in appendix 3 to the report. After the on-the-spot appraisal and the Recommendation of year 2000, the Greek Government had taken the decision to propose most of Western Milos – over 80 % of the areas where the Milos viper lives in Western Milos – as a Natura 2000 site. Gold mining perspective had been abandoned, even if some mining activities will continue. The area is to become a protected area and the necessary environmental studies and management plans were being prepared. Conservation action (fire prevention, monitoring, underground passages) was already being implemented.

The Group took note of the information presented, considered a very positive step the future protection of most of Western Milos as a Natura 2000 site and encouraged Greece to further implement Recommendation No. 84 (2000).

➤ ***Coluber gyarosensis* in Gyar (Greece): status and threats**

The representative of the SEH noted that this species had a very small distribution area (in the small island of Gyar, a military area) and that apparently pigs had been introduced. The species was surely vulnerable due to its small distribution and should be subject to some research and follow-up.

The delegate of Greece said that she did not have information on the species, but that she would take the concern of the Group to the military authorities.

The Group asked Greece to survey this species and inform the Standing Committee on its status.

➤ ***Trionyx triunguis* in Turkey: implementation of Recommendation No. 26 (1991)**

The representative of Turkey presented a report on the species in her state (see appendix 3). A number of studies have been carried out by Turkish scientist on the species, which is protected by the Bern Convention as this text has direct legal effect on Turkey.

The representative of MEDASSET presented a report (appendix 4 to the report) and informed the Group that the species is classified as “critically endangered” by IUCN. Main threats are habitat destruction, interaction with fisheries – including direct killing by fishermen – and disturbance by boat traffic. He requested urgent protection measures, including habitat protection.

The Group took note of the information presented and proposed that the Standing Committee examine the draft recommendation found in appendix 6 of this report.

➤ ***Testudo graeca graeca* in SW Spain: status and threats**

The representative of SEH noted the critical situation of the species in the province of Murcia, where its habitats is progressively being destroyed for new agricultural development and urbanisation. Some of the core areas for the species have been proposed as Natura 2000 sites, but many are left unprotected. A planned highway from Cartagena to Vera is to cause further damage of its natural habitat, causing also more fragmentation. Compensatory measures have not been contemplated.

In the absence of the delegate from Spain, the Group took note of the information presented and decided to submit for possible adoption the draft recommendation found in appendix 5 to this report.

➤ ***Vipera ursinii rakosiensis* in Hungary: implementation Recommendation No. 23 (1991)**

The representative of Hungary presented a report (see appendix 4) and explained how his government was carrying out a number of conservation actions on the remaining habitat of the species, including agreements with farmers for special ways to harvest hay, etc. Critical sites have been targeted for protection under Natura 2000.

The representative of SEH expressed his concern for the long-term survival of the species, as much conservation relied now on isolated initiatives and more decisive actions needed to be taken, including an action plan.

The Group took note of the information presented and recommended Hungary to draft and implement an Action plan on the species and to further implement Recommendation No. 23 (1991) of the Committee.

➤ ***Testudo hermanni* in Plaine des Maures (France): implementation of Recommendation No. 26 1991)**

The representative of France informed the Group that the Ministry of Ecology and Sustainable Development had adopted an action plan on the species, protected as Natura 2000 sites most of the habitat of the species and established a captive breeding and re-introduction programme, thus complying with the request of Recommendation No. 26. Agreements were also being passed with land-owners to improve management of sites.

The representative of SEH welcomed this news but noted that not all actions recommended at the last meeting of the Group had been implemented. Some key sites were still not targeted for protection and urbanisation, agriculture and forest lines were still important threats.

The Group took note of the information provided.

➤ ***Elaphe longissima* in Germany : status and threats**

The representative of SEH presented a report (found in appendix 4 to this report). The populations in Rheingau (Wisbaden) are very fragmented and threatened by new urban developments, including new roads and housing. Although some subpopulations are targeted for Natura 2000 sites, much of the range of the species is unprotected and no precise management is carried out. More survey and creation of new protected areas and ecological corridors are needed.

The delegate of Germany noted that a field survey is being carried out. The Hesse regional authorities were well aware of the vulnerable situation of the population and were addressing the conservation problems. Also voluntary groups are active in the area.

The representatives of Austria, the Czech Republic and Ukraine noted similar problems with the species in their states.

The Group took note of the information presented and decided to propose a draft recommendation to the attention of the Standing Committee (appendix 7 to this report).

➤ **Hopa region : information from Turkey on steps taken since on-the-spot appraisal from Council of Europe in 1997**

The Turkish delegate made a presentation of the Government report on this issue (found in appendix 4 to this report). The Government is well aware of the herpetological interest of the area, where a number of wildlife protection projects are being carried out, including awareness activities and ecological survey (through a specific GEF project). The results will provide elements for management. As the region is not subject to development pressures, it is not envisaged to create new protected areas.

The delegate of SEH expressed frustration as to the lack of effective conservation measures in the last 6 years and the absence of will in the Government to create new protected areas. Many pristine areas could be easily protected now that pressures are low and it seems not appropriate to wait until developments appear.

The Group took note of the information presented and encouraged Turkey to further implement the Recommendations of the on-the-spot appraisal [document T-PVS (97) 55].

➤ ***Rana lessonae* in Norway**

(This point was added by the Group at the adoption of the agenda, so Norway that was not represented at the meeting had no chance to present a report.)

The delegate of SEH informed the Group that this species has only one population breeding in two ponds less than 2 km apart. Many years the species fails to breed successfully if the summer is short or cold. In 2001 trout was introduced in one of the lakelets, eating almost most of the tadpoles before it was removed in 2002. As this is the most threatened vertebrate in Norway, it merits more conservation attention by government agencies. Possible measures could include establishment of management agreement with land-owners, digging new ponds in the area, monitoring the species and introducing tadpoles to other suitable ponds elsewhere.

The Group took note of the information presented and encouraged Norway to take appropriate action.

6. Suggestions for amphibian and reptile conservation activities within the framework of the Convention for 2004-2006

The Group noted the lack of progress in the elaboration of the 46 Action plans that had been selected as priorities in 1998. The Secretariat noted that in other Bern Convention expert groups on vertebrates and in other fora the drafting and adoption of action plans (in birds, large carnivores, bison, otter, monk seal, marine turtles, etc.) had lead to more efficient conservation action by governments.

The Group proposed to select a few species for European Action plans to be prepared in the next 3 years:

- Amphibians

Triturus cristatus complex
Proteus anguinus
Rana latastei
Rana lessonae.

- Reptiles

Testudo hermanni hermanni
Lacerta agilis (Northern range)
Lacerta viridis complex
Elaphe quatuorlineata
Vipera ursinii complex.

The Group urged Governments to draft and implement, at the national level the following Action plans :

- Amphibians

Euproctus platycephalus (Italy)
Pelobates fuscus insubricus (Italy)

- Reptiles

Testudo marginata (Albania, Greece)
Trionyx tringuis (Turkey)
Natrix natrix cetti (Italy)
Natrix natrix schweizeri (Greece)
Vipera ursinii rakosiensis (Hungary).

7. Possible recommendations to the Standing Committee to the Convention

The Group proposed 3 draft recommendations for the attention of the Standing Committee, on *Testudo graeca graeca* in Spain (appendix 5), *Trionyx triunguis* in Turkey (appendix 6) and *Elaphe longissima* in Austria, Czech Republic, Germany, Ukraine (appendix 7).

8. Election of Chair and Vice-Chair

Mr Richard Podlucky (Germany) was elected Chair. Mrs Riinu Rannap (Estonia) was elected Vice-Chair.

9. Other business

None.

Appendix 1

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Appendix 2
Group of Experts
on Conservation of Amphibians and Reptiles

Malmö (Sweden), 26-27 September 2003

AGENDA

1. Opening of the meeting by the Chairman
2. Presentation of the meeting by the Secretariat
3. Adoption of the agenda
4. Progress in amphibian and reptile conservation since the last meeting (May 1998).
WRITTEN SUMMARIES OF NATIONAL REPORTS WELCOME.
5. Urgent cases requesting attention by governments:
 - ✓ *Milos viper*: implementation of Recommendation No. 84 (2000)
 - ✓ *Coluber gyarosensis* in Gyar (Greece): status and threats
 - ✓ *Trionyx triunguis* (Turkey): implementation of Recommendation No. 26 (1991)
 - ✓ *Testudo graeca graeca* in SW Spain: status and threats
 - ✓ *Vipera ursinii rakosiensis* in Hungary: implementation of Recommendation No. 23 (1991)
 - ✓ *Testudo hermanni* in Plaine de Maures (France): implementation of Recommendation No. 26 (1991)
 - ✓ *Elaphe longissima* in Germany : status and threats
 - ✓ Hopa region: information from Turkey on steps taken since on-the spot appraisal from Council of Europe in 1997
 - ✓ *Rana lessonae* in Norway
6. List of species to be subject to Action Plans
7. Suggestions for amphibian and reptile conservation activities within the framework of the Convention for 2004-2006
8. Possible recommendations to the Standing Committee to the Convention
9. Election of Chair and Vice-Chair
10. Other business

Appendix 3

-- National reports --

CONTENTS / SOMMAIRE

1. Austria / Autriche
2. Croatia / Croatie
3. Czech Republic / République tchèque
4. Estonia / Estonie
5. France / France
6. Greece / Grèce
7. The Netherlands / Pays-Bas
8. Romania / Roumanie
9. Slovakia / Slovaquie
10. Sweden / Suède
11. Switzerland / Suisse
12. Turkey / Turquie
13. United Kingdom / Royaume-Uni

1. AUSTRIA / AUTRICHE

Short Report on the situation of Austrian herpetofauna mentioned in the Bern Convention

AMPHIBIA

Triturus cristatus (Great Crested Newt)

The populations of the Land „Niederösterreich“ seem to be decreasing, but there are no specific surveys and conservation measurements carried through.

In Northern Tirol 3 new localities have been found in the valley of the river Lech close to the Bavarian border. The population of the most important breeding pond can be estimated of about 500 – 700 specimen. There is no immediate threat and no use of this pond at the moment, but lack of any protection may cause problems, for example pisciculture may afflict the population heavily.

The population trends of other Lands are unclear at the moment.

Bufo calamita (Natterjack Toad)

At the sites at Gmünd a scientific monitoring has been carried through by the WWF. The population there of about 500 individuals as well as the reproduction success seem to be stable. A future problem will be the shut down of sand mining – at the moment the sand quarries are active – but an adequate management programm is in discussion.

In the Land „Northern Tirol“ the locality in the valley of the river Lech close to the Bavarian border is lying in a Nature-2000-area, a management program and further investigations will be worked out there.

Bufo viridis (Green Toad)

Bufo viridis is still close to extinction in Southern Austria. The populations in Styria are rapidly decreasing, conservation measurements are missing here. Next year a restoration program of the swamp forests of the river Mur at the Slovenian border will be started by reopening the artificial river dams. This may have positive effects on the local habitats of the Green Toad.

In Carinthia there are only 3 sand quarries with populations of the Green Toad. Reproduction success is varying due to lack of rainfall in some years. In one of the quarries the mining company has supported the creation of appropriate artificial ponds.

Hyla arborea (European Tree Frog)

The decrease of the Tree Frog especially in the Land Salzburg is still going on, caused by isolation, loss of breeding ponds, pisciculture and climatic changes. Some reintroduction projects has been carried through successfully there. A scientific monitoring is planned for the next years.

REPTILIA

Emys orbicularis (European Pond Terrapin)

The habitats of *Emys* are an integrated part of the National Park „Donau-March-Thaya-Auen“, where this species occurs in several habitats especially in the swamp forests along the Danube. At least a large part of the population is descending from introduced specimen. Reproduction success is reported frequently. *Trachemys scripta elegans* is introduced in high numbers too, especially at localities in or close to the vicinity of Vienna, which may afflict the *Emys* populations.

Lacerta vivipara „pannonica“ (Pannonian Viviparous Lizard)

The main part of the Burgenland habitats are included in the National Park at the Neusiedler See, management measurements are appropriate to the species requirements. Also the localities outside the protected areas are not threatened at the moment. This species is widely spread in the reed belt of the lake Neusiedler See.

In the Land Niederösterreich *Lacerta vivipara pannonica* is close to extinction, occurring only at Moosbrunn and some small localities in the surroundings. The decrease is caused mainly by falling ground water level, drainages and drinkwater extraction.

***Natrix tessellata* (Dice Snake)**

The populations of *Natrix tessellata* at the rivers Mur, Raab, Lafnitz and tributaries are stable or increasing due to many activities on cleaning the water as well as natural restoring of river embankments and flow characteristics. The species is widely spread in Southern Styria. In Carinthia a mapping study has identified several new localities especially at the river Drau and tributaries. The reed belt of the „Wörthersee“, main habitat structure of the Dice snake, is strictly protected by law, but there is great concern on the reconstruction of the public baths area „Loretto-Bad“ in Klagenfurt, the hibernation place of the largest population at the „Wörthersee“.

In Vienna another mapping study has been carried through in the year 2001, where a new locality at the Danube has been found.

***Vipera (ursinii) rakosiensis* (Meadow Viper)**

The Meadow Viper is probably extinct in Austria. There are no proper habitats in the Land Niederösterreich except one 9 hectare meadow, the „Pischelsdorfer Wiesen“. This wet as well as dry meadow is strictly protected due to a high diversity of rare plants and breeding birds and has been enlarged in the last years. Mowing takes place once a year at September, but the covering of dry plant material is removed radically and most parts don't show any tussocky vegetation structures at all. Especially in spring there is no chance for hiding places for reptiles in the main part of the meadow.

In Burgenland the possible habitats are included in the National Park „Neusiedlersee“. In the last decade many vineyards and other agricultural areas become disused being meadows now, especially at the „Zitzmannsdorfer Wiesen“, „Oberer Stinkersee“ (both one of the last records of V.u.r.) and „Sandeck“. All these meadows as well as the protected part of the vipers former habitat don't fit their habitat requirements. Microstructures and tussocky vegetation doesn't exist here. The largest potential habitat is the region „Sandeck – Zwikisch – Neudeck, but only a few hectare of meadows in Neudeck are showing appropriate structures. The Meadow Viper has never been recorded there. A rapidly increasing problem here is the damage caused by wild boar, which afflicts about one third of the whole area.

About 5 years ago mowing has been replaced by extensive cattle grazing (Hungarian steppe race), monitored and managed by the N.P. authorities. Other parts of the National Park, mainly at the surroundings of Sandeck and Illmitz, are grazed by donkeys, horses and other cattle races. Effects to the quality of the meadows will show the future.

In the Lands Niederösterreich and Burgenland there has been restarted a monitoring of the potential habitats by herpetologists this year.

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2. CROATIA / CROATIE

THE STATE AND PERSPECTIVES OF THE AMPHIBIANS AND REPTILES CONSERVATION IN THE REPUBLIC OF CROATIA

Compared to North and Central Europe and some well-developed countries of South Europe, Croatia is a country with a relatively well-preserved nature. Still, there are also numerous problems regarding protection of nature in Croatia. Lately more and more natural habitats are being endangered and their survival is questionable because of many new highways and motorways, tourism, fast urbanization, revived industry and agriculture in the areas abandoned during the latest war in Croatia. Though legal regulation for nature protection is also being modernized and approaches North- and Central European standards, the implementation of these laws is questionable and difficult, and the protection of nature is not being conducted consistently. Regarding problems of habitat protection, there is also a problem of amphibians and reptiles protection. Habitats are being changed and this way their numerous populations are being endangered, and there are also other problems (poaching, hunting, etc.) in biodiversity protection, characteristic for undeveloped eastern and southern countries, as well as in European transition countries and developed countries of the West.

First there is a problem of legal regulation in Croatia that applies to the protection of amphibians and reptiles:

There are many new laws and statutes in Croatia on the conservation of nature and environment and especially on the protection of amphibians and reptiles:

The basic act on which the whole nature protection in Republic Croatia is based on is the Law of the protection of nature. Low from the year 1994. Momentary is still actual but it will be actual for a very short time because the new Law of the protection of nature is already accepted by the Croatian Parliament (2003, September, 23). This will not affect the protection status of amphibians and reptiles in Croatia because they remained tentatively protected according to the following Acts based on the Law of the protection of nature from the year 1994:

Act on the protection of certain reptile species (Reptilia) from 1995

Act on the protection of amphibians (*Amphibia*) from 1999

Act on the reparation of damage caused by illegal actions on protected animal species from 1999

All these Acts are connected to the Law of the protection of nature from 1994.

In Croatia there are many (352) protected areas; under the highest protection level there are 8 National Parks, 10 Nature Parks, 2 Strict reserves and 74 Special reserves. All in Croatia present species of the amphibians (except Green Frogs) and reptiles (except *Coluber caspius*, *Vipera berus*, *Vipera ammodytes* and *Typhlops vermicularis*) are protected according to the Law of the protection of nature from 1994. and according to all the Acts based on it.

Besides these national laws, Croatia has also signed many international conventions, which regulate nature and environment conservation, including protection of amphibians and reptiles. Here are some of them:

Convention on Biological Diversity (Rio de Janeiro, 1992), Convention on Wetlands of International Importance, Especially as Waterfowl Habitats (Ramsar, 1971), Convention on the Protection of World Cultural and Natural Heritage (Paris, 1972), Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973), Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979)

Convention on Protection of Migratory species (Bonn, 1979)

In 2000 Croatia has also made an Action plan and Strategy ((National Strategy and Action Plan on Protection of Biological and Landscape Diversity – NSAP) which establishes endangered habitats, plant and animal species, and a strategy of treating both these categories.

The Red List is also being prepared (with 28 amphibian and reptile taxa) (ready for printing) and the Red Book of the most endangered amphibians and reptiles in Croatia.

Present state:

Though research into taxonomy and distribution of amphibians and reptiles in Croatia (unfortunately never systematic and under-financed) have been conducted from the 19th century, still we have no complete structure (i.e. as late as in 1999 was *Typhlops vermicularis* established as a member of Croatian fauna), and especially no precise distribution for the majority of amphibian and reptile species. This sounds alarming, especially when very endangered species or species on the edge of extinction are in question, i.e. *Proteus anguinus*, *Bombina variegata kolombatovici*, *Mauremys caspica*, *Coluber caspius*, *Vipera ursinei* cf. *ursinii*, *Vipera ursinii macrops* and others.

Because of the insufficient knowledge of distribution of certain species, it is possible that during the building of some objects or roads a habitat of a very endangered species' becomes unintentionally threatened. Bigger, international projects that could help in explaining the distribution of certain amphibians and reptiles in the karsts area of Croatia are planned not before than in 2004.

The Inspectorate of the Ministry of environmental protection and physical planning (MEPPP) is neither well-developed nor well-equipped, and it can not cover all violations of the Law for the Nature Protection and accompanying Acts. Ranger service in the protected areas (especially in National and Nature Parks) has just begun to develop. This results in frequent endangering of habitats of the protected amphibians and reptiles, in protected and also in unprotected areas in Croatia. It happens particularly during the construction of roads and touristic objects, especially in the karsts area (Žumberak, Istra, Gorski Kotar, Lika, part of Dalmatia, and islands). Regarding the reptile protection this is the most important part of Croatia.

Before construction of any object that can have an influence on the environment, the investor is obliged to finance a Study of Environmental Influence, but during the construction conditions from this Study are often neglected and the Inspectorate of the MEPPP often do not sanction these law violations.

In Croatia there is only one NGO «Hyla», which studies and protects amphibians and reptiles. This NGO has started certain researches and actions for the protection of amphibians and reptiles (i.e. protection of amphibians by road-crossings during migrations, protection of artificial pools in karsts areas of Croatia).

Eduard Kletecki

3. CZECH REPUBLIC / REPUBLIQUE TCHEQUE

National report on progress on amphibians and reptiles conservation since 1998

Further assessment has been compiled by the Agency for Nature Conservation and Landscape Protection of the Czech Republic which is an expert body of the Ministry of Environment. As most of the data has not been quantified, the assessment remains expert opinion of the above-mentioned institution.

Critically endangered (CR)

Palmate Newt (*Triturus helveticus helveticus*)

It is highly endangered species due to very small distribution range in the westernmost part of the Czech Republic (CZ). Additionally this range is loaded by development of tourist trade between CZ and Germany. Nonetheless current situation of species is satisfactory, thanks to providing of protective measures.

Montandon's Newt (*Triturus montandoni*) - the Sudeten population

Sudeten population is very endangered by changes of very limited distribution area of its biotopes. There are good experiences with population support. In general, building of (artificial) water biotopes which are preferred by this species contributed to an evident population increase. However, concerning concrete sites, within last five years there is an evident population decrease due to missing site management.

Danube Crested Newt (*Triturus dobrogicus macrosomus*)

It is very endangered as all species of moist biotopes on plains of lowland rivers. Species needs a special management. There is no protection neither management up to now. The populations have rapidly decreased during last five years; however, precise quantitative data do not exist.

Italian Crested Newt *Triturus carnifex carnifex*

Very endangered. Since its first finding in 1997 many localities have dissappeared, because they were not protected and the species has not been protected, too. It is endangered by physical liquidation, changes of biotopes and stocking of old waterlogged quarries and others sites of its occurrence. Species occurs in very small area. The populations have rapidly decreased during last five years.

Yellow-bellied Toad (*Bombina variegata variegata*) – an alpine side

Species is very endangered by destroying of biotopes (non-paved roads), which the species uses for reproduction. These roads are being paved or repaired by asphalt. Population has rapidly decreased compared to population 20 year ago. Current situation is caused also by drought. Toads were being found in water bodies such as reservoirs, barrels and the garden ewers or the plastic decorative basins on private plots which are not their natural reproduction sites. The populations have rapidly decreased during last five years.

Endangered (EN)

Crested Newt (*Triturus cristatus*)

It is endangered by changes of biotopes and stocking of old waterlogged quarries and other sites of its occurrence. It is distributed more areally (except areas higher than 700 - 800 m above sea level). During last five years the populations decreased.

Carpathian Newt *Triturus montandoni* - the Carpathians population

The Carpathians population is not as endangered as the Sudeten population; the sources of endangering are the same. However, the Carpathian mountains are not so anthropically affected as the Sudeten mountains and the heavy-textured soils of Carpathians have better ability to hold water.

Management is very simple – to create small pools on waterlogged meadows by blast, to restore old waterlogged road ditches, etc. During the last five years the population has decreased only slightly.

Fire-bellied Toad (*Bombina bombina*)

After the dramatic decrease in years 1990 - 2000 this decrease seems to be finished (at least in some regions). Somewhere the populations increase (Western and Northern Bohemia). Species has disappeared from large regions (parts of Eastern and Central Bohemia). There are not too much sites from which the species could return back to these regions. Returning will be a long-term process.

Natterjack (*Bufo calamita*)

The populations are stable there where the fitting biotopes exist (work in quarry, work of heavy machines in mines). However, the species is disappearing from places which are changed unfit for its ecological requirements. Management is in principle very simple but it is difficult to enforce it to reality.

Moor frog (*Rana arvalis arvalis*)

One of the most endangered species of frogs in the Czech Republic. The decrease is connected with drying of anthropically affected landscape. For last years the global changes of environment have also affected a decrease of population. Populations are decreasing every year. Very endangered species, the drastic decrease.

Vulnerable (VU)

Fire Salamander (*Salamandra salamandra salamandra*)

The global changes (warming, drought) have a negative affect to populations for last years. Without these changes the populations would be stable.

Yellow-bellied Toad (*Bombina variegata variegata*) – the Carpathian population

The reasons of threat are the same as in the case of alpine population. However, the Carpathian mountains are less anthropically affected and the heavy-textured soils of Carpathians have better ability to hold water. For last five years the population is stable.

Green Toad (*Bufo viridis viridis*)

During last five years the populations have rapidly decreased. It is caused by disappearing of rubbish sites from villages and towns and their surroundings, also by new forms of exploitation of free spaces in villages and towns and intensification of exploitation of quarries and sandpits etc. The populations are stable only in areas of mines.

Pool Frog (*Rana lessonae*)

The decrease is connected with drying of anthropic landscape. The global changes of environment have a negative affect to populations during last years. The populations are decreasing every year.

Edible frog (*Rana kl. esculenta*)

A decrease of population is similar to previous species.

Nearly threatened (NT)

Alpine Newt *Triturus alpestris alpestris*

The decrease has systematically continued for several decades, but it is not so dramatic and the populations of many regions are still satisfying.

Common Spadefoot (*Pelobates fuscus fuscus*)

There have not been major changes in populations within last five years.

Common Tree Frog (*Hyla arborea arborea*)

For last 10-15 years the populations have been systematically increasing. The species is appearing in sites from which it disappeared in 60th and 70th years.

Agile Frog (*Rana dalmatina*)

For last 10-15 years the populations have been systematically increasing. The species is appearing in sites where it has not been found before.

Marsh or Lake Frog (*Rana ridibunda*)

The populations are stable. In the some regions (the Southern Moravia) the population have an increasing trend. It can be connected with decrease in populations of two others species from family *Ranidae*.

(Low concerned LC)

Smooth Newt (*Triturus vulgaris vulgaris*)

The populations have slightly decreased during last five years.

Common Toad (*Bufo bufo bufo*)

The populations have slightly dropped during last twenty-five years. For several last years the decrease has raised due to intensive traffic on some roads.

Common Frog (*Rana temporaria temporaria*)

The populations have dropped during last five years. It is caused by changes of biotopes, global warming and dry summer seasons.

Non-evaluated (NE)

Reptiles

Critically endangered (CR)

Green Lizard (*Lacerta viridis viridis*) – the Hercynian population (west of the CR)

The populations have dropped for last five years. The main reasons of decline are changes of habitats, caused by leaving of traditional forms of utilization, followed by succession and development of high vegetation.

Common Wall Lizard (*Podarcis muralis muralis*)

The situation is stable.

Aesculapian Snake (*Elaphe longissima longissima*) – population of northwestern Bohemia

After rapid decrease of populations in 2nd half of 20th century the decrease seems to be stopped.

Endangered (EN)

Green Lizard (*Lacerta viridis viridis*) – the Carpathian and Pannonic populations

The situation is stable.

Aesculapian Snake (*Elaphe longissima longissima*) - Moravian population

Probably the situation is stable, but current data from Carpathian area are missing.

Dice snake (*Natrix tessellata tessellata*)

The populations have decreased rapidly due to predation by *Lutreola vision* and the invasion of neophytes to river banks.

Vulnerable (VU)

Adder or Common Viper (*Vipera berus berus*)

The decrease of populations, which have started at the end of 19th century, is still going on, but nowadays it is slowing down. Probably it is caused by persecution, warming and drying of landscape.

Nearly threatened (NT)

Smooth snake (*Coronella austriaca austriaca*)

Slight decrease or sustainable situation. The data for more detailed assessment are missing.

Sand Lizard (*Lacerta agilis agilis*)

The populations have decreased during last five years. Probably it is connected with bushes invasion to sites.

Viviparous Lizard (*Zootoca vivipara vivipara*)

Sustainable situation or only slight decrease.

Slow Worm (*Anguis fragilis fragilis*)

Stable situation or only slight decrease. Nowadays an increasing traffic endangers the species.

Grass Snake (*Natrix natrix natrix*)

A stable situation or only a slight decrease. The data for more detailed assessment are missing.

Taxon where the detailed dates are missing

European Pond Terrapin (*Emys orbicularis orbicularis*)

No data. Probably does not occur in the CZ, which needs further investigation.

Non-evaluated

Anguis fragilis colchicus

4. ESTONIA / ESTONIE

Amphibian and reptile conservation 1999-2003 National report of Estonia

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In Estonia we can find 11 species of amphibians and 5 species of reptiles. All species except *Rana ridibunda* are indigenous in Estonia. *Rana ridibunda* was introduced in 1925.

1. Legislation

According to the Act on Protected Natural Objects (1994) all amphibian and reptile species are protected in Estonia (Table 1).

Species of Protection Category II and III shall be listed pursuant to the Act on Protected Natural Objects in accordance with the relevant procedure established by the Government of Estonia.

Taking, keeping and killing of animal species of Protection Category II and III, disturbing the species to an extent that sets the animals in danger, and making transactions with the species, is prohibited. Destroying of their permanent habitats or causing damage to these to an extent which sets the preservation of the species at the concerned site in danger, is prohibited.

A protected area may be established for ensuring the preservation of the site of growth or permanent habitat of a species, or the site of a fossil or mineral, of Protection Category II.

Table 1 Amphibian and reptile species in Estonia

	The Bern Convention	EU Habitats Directive	IUCN Red Data List	Protection Status in Estonia	Comments
AMPHIBIA					
Caudata					
<i>Triturus vulgaris</i>	III			III	
<i>Triturus cristatus</i>	II	II; IV	CD	II	Threatened
Anura					
<i>Bufo bufo</i>	III			III	
<i>Bufo calamita</i>	II	IV		II	Threatened
<i>Bufo viridis</i>	II	IV		II	Threatened
<i>Pelobates fuscus</i>	II	IV		II	Threatened
<i>Rana arvalis</i>	II	IV		III	
<i>Rana temporaria</i>	III	V		III	
<i>Rana esculenta</i>	III			III	
<i>Rana ridibunda</i>	III	V		III	Alienspecies
REPTILIA					
Squamata					
<i>Anguis fragilis</i>	III			III	
Lacerta vivipara	III			III	
<i>Lacerta agilis</i>	II	IV		II	Threatened
<i>Natrix natrix</i>	III			III	
<i>Vipera berus</i>	III			III	

2. Monitoring

Since 1994 the amphibian's monitoring program has been carried out in the frame of the Biodiversity Sub-Program of the Estonian National Environmental Monitoring Program. Amphibian monitoring is carried out annually, in 13 monitoring stations. The monitoring stations are located all over Estonia, covering the distribution ranges of all amphibian species.

3. Species protection

In order to protect threatened amphibian species in Estonia and to maintain and restore their habitats, several projects have been carried out in national and international level:

1. "*Bufo calamita* in Estonia" Estonian Fond for Nature (1998-2001).
2. Estonian-Danish project "Amphibians in Estonia – Protection and Education" (2000-2003). Financed by DANCEE.
3. LIFE-Nature project "Boreal Baltic Coastal Meadow Preservation in Estonia" (2001-2004). The aim of the project is to restore the coastal meadow habitat for *Bufo calamita* and secure the population of this species.
4. LIFE-Nature project "Restoration and Management of Häädemeeeste Wetland Complex" (2001-2004). In frame of this projects habitat restoration for *Lacerta agilis* and *Bufo calamita* will take place.
5. LIFE-Starter project "Protection of *Triturus cristatus* in Eastern-Baltic region" (2003).

4. Achievements

In 1998-2003 the following results have been achieved:

- Inventories of *Triturus cristatus*, *Pelobates fuscus*, *Bufo calamita* and *Bufo viridis* have been carried out all over the country (2000.-2003). Database on threatened amphibian species has been created (based on MapInfo).
- Action plans for *Bufo calamita* were compiled for those counties where the species occurs. The overall Action plan for *Bufo calamita* is under preparation.
- Four educational-scientific workshops about amphibians, have been organised (2000-2003). The aim of those international workshops is to provide the participants both practical experience and discussions concerning the threats towards the species and possibilities to maintain and restore the habitats. This type of international cooperation has provided the opportunity to have a wider grasp on the problems and find solutions together by putting one another's knowledge and existing experiences into use
- Seven work camps for amphibians' habitat restoration and management have been carried out in protected areas.
- 110 breeding ponds for *Bufo calamita*, *Bufo viridis*, *Pelobates fuscus* and *Rana arvalis* have been restored and created.
- 1500 ha of coastal meadows as an habitat of *Bufo calamita* have been restored and maintained.
- Re-introduction of *Bufo calamita* to restored coastal meadows was started in 2000, to create reserve populations for existing populations.
- The sandpit restoration has been carried out to improve the habitat of *Bufo calamita*, *Rana lessonae*, *Rana arvalis*, *Rana temporaria* and *Lacerta agilis*.
- The sanddunes restoration for *Lacerta agilis*, in aim to create open areas, for this species is in process 2003.
- A folder "Protection of amphibians in Estonia" was published in three languages (Estonian, English and Russian) in 2001.

5. FRANCE / FRANCE

RAPPORT NATIONAL SUR LA PROTECTION DES AMPHIBIENS ET DES REPTILES DE FRANCE

- 1- Le nouvel inventaire, débuté en 1997, a été réorganisé. A présent on trouve 1 coordonnateur national à la tête des coordonnateurs régionaux (1 par région administrative). De 44.000 données obtenues en 1989 on est passé à 110.000 données en 2003. La cartographie finale est prévue pour fin 2003. Les principales découvertes concernent notamment la présence de *Rana arvalis* dans la région Nord Pas-de-Calais, *Pelobates fuscus* dans le Territoire de Belfort, *Chalcides striatus* en Charente et de plusieurs stations de *Timon lepidus* le long des côtes de l'Atlantique.
- 2- Le Plan d'Action Reptiles & Amphibiens a été adopté par le Ministère de l'Ecologie et du Développement Durable en 1997. Deux plans annexes particuliers concernent : (1) *Vipera ursinii* et (2) *Testudo hermanni*. 14 stations sont à présent connues pour cette vipère. Celle du Mont Ventoux est surveillée par les agents de l'Office National des Forêts et des actions de maintien d'ouverture du milieu (coupes d'arbres) ont été entreprises. Malgré les actions locales, les incendies de cet été ont été dramatiques pour certaines populations de Tortue d'Hermann de la plaine des Maures, notamment à Vidauban (Var). Des actions d'urgence sont envisagées pour réadapter le milieu incendié aux besoins des Tortues d'Hermann survivantes.
- 3- *Mauremys leprosa* : suivi et surveillance de la station de Banyuls où la petite population se maintient et n'est pas trop perturbée par un petit barrage de retenue d'eau. Une seconde station semble exister dans le pays basque français (région de Biarritz), mais demande confirmation.
- 4- *Emys orbicularis* : sa réintroduction a été réussie en Savoie, au Lac du Bourget.
- 5- *Timon lepidus* : des observations récentes font état d'un net déclin inexplicable des populations méditerranéennes du Lézard ocellé.
- 6- *Rana catesbeiana* et *Xenopus laevis* : ces deux espèces introduites respectivement dans le sud-ouest de la France + le Loir-et-Cher et dans le département des Deux-Sèvres deviennent envahissantes et constituent une menace réelle pour les espèces indigènes.

Actuellement, suite aux changements climatiques depuis la fin du petit âge glaciaire, de nombreuses modifications sont perceptibles dans la répartition des amphibiens et reptiles de France, surtout que beaucoup d'espèces européennes y possèdent leur limite méridionale ou septentrionale. Depuis une cinquantaine d'années, *Vipera aspis* remonte nettement vers le nord, tandis que *Vipera berus* recule, *Coluber viridiflavus* remonte aussi vers le nord. Inversement et de façon contradictoire, *Timon lepidus* est en déclin dans le sud de la France alors que *Podarcis muralis* et *Lacerta bilineata* s'y portent bien.

Patrick Haffner, Ivan Ineich & Jean Lescure

6. GREECE / GRECE

Short National Report on progress on amphibians and reptiles conservation since 1998

1. General

The major step taken on the protection of reptile and amphibian species in Greece was the designation of appropriate candidate Natura 2000 sites. In several cases (especially for areas in immediate need for protection) management plans and legal conservation measures have been elaborated, within the frame of projects. However, funds for basic research, on other species, are limited and such a research proceeds only through individual efforts in academic institutions.

2. Species

Mertensiella luschiani

Populations have been located in four islands, all of which have been designated Natura 2000 candidate sites: (Kasos GR4210001, central Karpathos GR4210002, North Karpathos & Saria GR4210003 and Kastellorizo GR4210004). These designated sites cover most populations of both subspecies.

The problem of overgrazing (and connected problems as afforestation, fire and degradation of habitats) is noticed only on the island of Kasos. Measures should be explored towards two directions: i) rationalize the method of grazing (including subsidies) and ii) at rebuilding or conserving existing rock built walls, which mostly serve as property limits and are one of the animals' preferred habitats, as a long term perspective.

Triturus cristatus

The species "technically" does not exist in Greece. *Triturus cristatus* is considered today as "superspecies" and its former populations in Greece have been renamed to either *T. karelinii* or *T. carnifex*. Several populations of both species are within designated pSCIs' (GR 1110001, GR 1110002, GR 1110003, GR 1110005, GR 1140002, GR 1260007, GR 1410002, GR 2130001, in many areas of continental Greece and on the island of Corfu. There is a partial knowledge of some populations.

Testudo marginata

The species is recorded in more than in 40 Natura 2000 candidate sites throughout Greece, 9 of which are in south Peloponnisos, where the newly described species *T. weissingeri* has been reported.

Efficiency against fires, which are one of the main threats for the species, has largely increased during the latest years, due to a change in the government's strategy, i.e. the transfer of the responsibility of all fires combating operations to the Fire Brigade Corp (previously forest and rural fires were the responsibility of the forestry department).

Through conservation projects in relevant areas, several public awareness activities have been promoted, which may have not directly targeted the species but the fauna, flora and habitats of the areas in total. However, in two cases in Peloponnisos (Pylos and Strophylia) the projects are dealing directly with this species.

Lacerta agilis

The species in Greece is found only in Northern Greece, an area of lower priority for herpetologists, who work in Greece and thus data still lack for the species populations status. It is not considered as an endangered species.

Chamaeleo chamaeleon

It is a species with very small and isolated populations in Greece. Its taxonomy is under examination. In Pylos – Peloponnese occurs the **Chamaeleo africanus** whilst *Chamaeleo chamaeleon*

populations occurs in the islands Samos, Chios and Crete. Data is currently collected for Samos island within a frame of a Ph.D. study.

Coluber gyarosensis

Our knowledge on the species is very limited. According to reports of some field researchers it occurs on island Gyaros, an uninhabited island with specific military status. It is not on the top of the conservation priorities.

Vipera ursinii

There are only limited records of the species in northern Greece, thus the same reasoning as for *Lacerta agilis* holds for *V. ursinii* as well.

Macrovipera schweitezeri

The key areas for conservation are the habitats with the highest viper densities mainly on Western Milos. The Competent National Authorities on the basis of the study “*Vipera lebetina schweitezeri* conservation proposals” and the “Habitat Types Mapping Project” for all the Natura 2000 sites have revised the former proposal for the Natura 2000 site GR 4920020 “Profitis Elias”. This revision resulted in a significant enlargement of the site, so that almost the major terrestrial part of Western Milos is included in this site. All the Milos viper core areas and the connecting them corridors, in Western Milos, are included in the enlarged site.

Conservation measures for the establishment of a protected area in the Western Milos have been elaborated within the frame of the Specific Environmental Study (SES), which is under consideration, by the Ministry of the Environment. It can be said that this study is not satisfactory.

The legal establishment of the protected area presupposes the modification of the current physical planning arrangements for Western Milos (National Physical Planning and Environmental Council Decision 54/1987) mainly related to the exploitation of minerals and to quarrying activities. The Services of the Ministry of the Environment are examining the alternatives legal procedures, in view of such modification, which has to be submitted to the Minister of the Environment for the appropriate consideration.

However, an extra environmental term has been induced with regard to the prohibition of the circulation of the heavy vehicles transporting the excavated materials and minerals during the hours 19:00 – 07:00. This prohibition covers the two quarrying companies “AGET – HERACLES” and “INTERBETON”. Furthermore modification and/ or amendment of the existing environmental terms can be imposed, provided their justification.

The restoration works for two ceased quarries, at the locations Northern and Southern Rallaki, are at advanced stage.

The 383,44 ha surface area (Chalakas-Agriokambos-Profitis Elias-Keratogianni-Xirokambos-Tsouvala) which has been dramatically affected by fire, in summer 2002, has been officially declared as a “re-afforested area” according to the forest legislation. This declaration aims at the natural revegetation of the natural vegetation and comprises the prohibition of:

- grazing (goats for 10 consecutive years, sheep and other big animals for 5 consecutive years)
- timbering, land clearing and any other non forest cultivation

The Ministry of the Environment, in collaboration with the relevant Regional and Prefectural Authorities have elaborated projects, which are of significance in terms of conservation purposes in Western Milos. These projects, cofinanced through E.U funds (the Third Community Support Frame), are the following:

- a. “Study and Afforestation works of a 150 ha area at “Tsouvala” location with a budget of 300.000€. This project is contributing to the habitat restoration for the Milos viper and has been chosen as the appropriate conservation action towards the grazing management plan for western Milos. The latter was assessed as no necessary.
- b. “Fire Combating Management Plan for Milos Island” with a budget of 700.000€.

For both projects (a) and (b) the study “*Vipera lebetina schweitezeri* conservation proposals” is considered as the basic element.

- c. “Restoration of the inert quarry at the location “Chaleppa”. This location is included in the greater area of the core area for Milos viper.
- d. “Protection of biotopes of species and Natura 2000 sites* of Milos Island” with the following actions:
 - i) Monitoring Programme for: the Milos viper populations and some other amphibians and reptiles, the road mortality in the relation to the efficiency of the underground passages, the habitat changes and the avifauna.
 - ii) Inventory of the local population concept, on the protection of the local indigenous wildlife and natural environment, the establishment and operation information office, planning of the communication strategy, development of information materials.
 - iii) Planning and construction of pilot underground passages for the Milos viper on two black spots.

The project (d) which started in August 2003, has a total budget of 683.584 € and a duration of 3 and half years.

There is not reported any illegal trade case with Milos viper.

Some other species like *Podarcis milensis* and *Natrix natrix schweitezeri*, are, definitely, receiving conservation through the legal arrangements and conservation projects in the Western Milos.

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Athens, September 2003

* Apart of the terrestrial Natura 2000 site there is marine Natura 2000 site around the Western Milos for the protection mainly of *Monachus monachus*

7. LATVIA / LETTONIE

NATIONAL REPORT ON AMPHIBIANS AND REPTILES CONSERVATION IN LATVIA

There are thirteen amphibian and seven reptile species in Latvia. All the species are mentioned in the Appendices II or III (Table 1) of Bern convention. Rare species are protected by the Cabinet of Ministers Regulations “Lists of Specially Protected and Limitedly Exploitable Specially Protected Species” (Nr. 396/14.11.2000). For two species (*Bombina bombina* and *Bufo calamita*), if necessary, it is possible to make microreserves. It is provided by the Cabinet of Ministers Regulations (Nr. 45/30.01.2001) “On establishing, protection and management of microreserves”.

Table 1 - Status of Amphibian and Reptile Species of Latvia

Species	Bern Convention	EU Habitats Directive	Situation in Latvia	Cabinet of Ministers Regulations
<i>Amphibia</i>				
<i>Triturus vulgaris</i> (L.)	III		Common	
<i>Triturus cristatus</i> (Laur.)	II	HD II; IV	Rare	Specially protected species
<i>Bufo calamita</i> Laur.	II	HD IV	Rare	Specially protected species
<i>Bufo bufo</i> (L.)	III		Very common	
<i>Bufo viridis</i> Laur.	II	HD IV	Comparatively rare	Specially protected species
<i>Bombina bombina</i> (L.)	II	HD II; IV	Very rare	Specially protected species
<i>Hyla arborea</i> (L.)	II	HD IV	Rare, reintroduced	Specially protected species
<i>Pelobates fuscus</i> (Laur.)	II	HD IV	Rare	Specially protected species
<i>Rana ridibunda</i> Pall.	III	HD V	Rare, introduced?	
<i>Rana esculenta</i> L.	III	HD V	Common	
<i>Rana lessonae</i> Camerano	III	HD IV	Common	
<i>Rana arvalis</i> Nilsson	II	HD IV	Comparatively rare	
<i>Rana temporaria</i> L.	III	HD V	Very common	
<i>Reptilia</i>				
<i>Emys orbicularis</i> (L.)	II	HD II; IV	Very rare	Specially protected species
<i>Lacerta agilis</i> L.	II	HD IV	Comparatively rare	Specially protected species
<i>Lacerta vivipara</i> Jacq.	III		Common	
<i>Anguis fragilis</i> L.	III		Common	
<i>Natrix natrix</i> (L.)	III		Very common	
<i>Coronella austriaca</i> Laur.	II	HD IV	Very rare	Specially protected species
<i>Vipera berus</i> (L.)	III		Common	

Natura 2000/Emerald project started in Latvia in 2000. Natura 2000 project in Latvia focuses on three species – *Triturus cristatus*, *Bombina bombina* and *Emys orbicularis*. During the project Natura 2000 several expeditions took place, mostly to the specially protected territories (nature reserves etc.), because all three species occur most often in protected areas. Besides, *B. bombina* and *E. orbicularis* already had restricted natural areas designated specifically for their protection. During Natura 2000 expeditions none of these species were found outside the protected territories.

There are several specially protected territories made for protection of *Bombina bombina*, *Bufo calamita*, *Hyla arborea*, and one with local significance for *Emys orbicularis*.

Distribution of other species is known by database of distribution of Latvian amphibians and reptiles. Researches of amphibian and reptile distribution in Latvia were started in 1986, when idea of amphibian and reptile atlas arised. Data were obtained by fieldwork and from interviews of different people. But due to financial problems the atlas was not published. Collecting information on

amphibian and reptile distribution still continued during other projects and as a hobby. Herpetologists and other biologists in the course of different projects collected large amount of data from entire Latvia. Partially materials written for the Latvian amphibian and reptile atlas is published in species encyclopaedia "Nature of Latvia" in Internet (<http://www.latvijasdaba.lv/>).

Analysis of distribution shows, that *Triturus vulgaris*, *Bufo bufo*, *Rana esculenta*, *Rana lessonae*, *Rana arvalis*, *Rana temporaria*, *Lacerta agilis*, *Lacerta vivipara*, *Anguis fragilis*, *Natrix natrix* and *Vipera berus* are distributed evenly in all territory of Latvia. Most common are *Rana temporaria*, *Bufo bufo*, *Lacerta vivipara*, *Vipera berus*, and *Natrix natrix*. Those species does not need any special measures for their protection.

There were different protection measures applied for other – rare and protected species.

Reintroduction project of *Hyla arborea* was started in 1988. Project was successful, and now there is stable *Hyla arborea* population in South – Western part of Latvia. Young frogs were released in one pond, but now population range is 650 km². There is monitoring program established for detecting changes of *H. arborea* distribution range.

Unfortunately *Hyla arborea* reintroduction project was the only successful amphibian reintroduction project in Latvia. *Bombina bombina* reintroduction project in year 1988 failed. But in 2002 Germany, Denmark, Sweden and Latvia developed Life Starter project "*Bombina bombina* – A Baltic Conservation Strategy". During this project were clarified threats and needs of *B. bombina* population and action plan for species conservation was developed. After that, in 2003, a Life application for *Bombina bombina* management project was submitted.

For better protection of *Emys orbicularis* population in Southern part of Latvia, the status of the protected area with local significance will be modified to restricted natural area with national significance.

There is a reserve population of *E. orbicularis* in Daugavpils zoo. There is project on research and supplement of *E. orbicularis* population initiated in Daugavpils region.

In 2004 it is planned to participate in workshops in Estonia to gain experience in managing *Triturus cristatus* sites, although *T. cristatus* populations in Latvia seem to be stable.

Both well-researched *Coronella austriaca* sites occur in the protected natural areas. Both populations are strictly protected and does not need any special management.

There are few data about *Bufo calamita*, *Bufo viridis*, *Pelobates fuscus* and *Rana ridibunda* population sizes. All these species mostly occur in the protected natural areas. There are three restricted natural areas designated specially for *Bufo calamita* protection. One of these territories is managed by regional organization of State Stock Company "Latvia's State Forests" as recommended by amphibian experts.

The latter three species mostly benefit from the general site management within scope of of management for other amphibian species.

8. THE NETHERLANDS / PAYS-BAS

Conservation of reptiles and amphibians in the Netherlands; the situation in 2003

Reptiles and amphibians are experiencing an increase of interest with policy makers and the general public, but the execution of appropriate measures in the field ought to be much more improved. Although local successes have been achieved, the general decline seems to continue, due to alteration and fragmentation of their habitats. The year 2003 has been a dramatic year for late-breeding amphibians. Due to the extreme drought, reproduction in many species failed or was minimal. Healthy populations are supposed to survive such seasons, but as the Netherlands are dealing with many threatened populations, a year without reproduction enlarges the chance for extinction considerably.

All species are legally protected and most of them are listed in the national Red Data Book (see Table).

According to the national Nature Policy Plan, Action Plans for four species are being carried out: *Alytes obstetricans*, *Bombina variegata*, *Hyla arborea* and *Pelobates fuscus*.

An item of great concern is the management of inland heathlands, where most of the reptiles have their habitat. Management measures for botanical and landscape interests are practiced at a large scale without consideration of the needs of reptiles, and they are often inappropriate for them. Many ponds have been restored and created for amphibians, though often not on places where they were needed, but the accompanying management did not come off. The effect of new ponds on threatened amphibians is limited.

Conservation successes strongly depend of the efforts of local people, who do the real physical work in the field.

Reptiles and amphibians play an increasing role in town and country planning, but in the best cases a compromise is reached between economic and ecological interests. This is always at the cost of the herps, as their demands cannot be haggled on.

For the Red List species the following accounts can be given:

Alytes obstetricans (Vulnerable)

Recent surveys have revealed about 70 localities where animals are present. The situation looks hopeful but stands or falls with an adequate management of reproduction ponds.

Anguis fragilis (Vulnerable)

A study on ecology and habitat has been carried out in 2003 and is planned to proceed in 2004. Basic ecological information is still needed to better understand the species' conservation needs.

TABLE. National and international legal protection, Red List categorisation and national policy appreciation of all Netherlands' reptiles and amphibians. FF: Flora and Fauna Act; HDA Habitat Directive Annex; BCA Bern Convention Annex; RLC: Red List category (E: endangered; T: threatened; V: vulnerable); TS: Target Species in Netherlands nature conservation policy.

Class	Scientific name	FF	HDA	BCA	RLC	TS
Reptilia	<i>Anguis fragilis</i>	●	-	III	V	●
	<i>Coronella austriaca</i>	●	IV	II	T	●
	<i>Lacerta agilis</i>	●	IV	II	V	●
	<i>Natrix natrix</i>	●	-	III	V	●
	<i>Podarcis muralis</i>	●	IV	II	E	●
	<i>Vipera berus</i>	●	-	III	V	●
	<i>Zootoca vivipara</i>	●	-	III	-	-
Amphibia	<i>Alytes obstetricans</i>	●	IV	II	V	●
	<i>Bombina variegata</i>	●	II & IV	II	E	●
	<i>Bufo bufo</i>	●	-	III	-	-
	<i>Bufo calamita</i>	●	IV	II	-	●
	<i>Hyla arborea</i>	●	IV	II	T	●
	<i>Pelobates fuscus</i>	●	IV	II	T	●
	<i>Rana arvalis</i>	●	IV	II	V	●
	<i>Rana kl. esculenta</i>	●	-	III	-	-
	<i>Rana lessonae</i>	●	IV	III	V	●
	<i>Rana ridibunda</i>	●	-	III	-	-
	<i>Rana temporaria</i>	●	-	III	-	-
	<i>Salamandra salamandra</i>	●	-	III	T	●
	<i>Triturus alpestris</i>	●	-	III	-	●
	<i>Triturus cristatus</i>	●	II & IV	II	V	●
	<i>Triturus helveticus</i>	●	-	III	V	●
	<i>Triturus vulgaris</i>	●	-	III	-	-

***Bombina variegata* (Endangered)**

Five isolated sites are left for the national population. Although the situation has improved since the execution of the Action Plan, the rate of reproduction is still very low. Only one site has a rather strong population with perspectives for survival at the longer term. A second site has much improved, but the (reproducing) population is very small yet. The remaining three are marginal: some individuals are still present but their future is uncertain. Still too many tricks have to be applied to keep them. The situation is being well monitored and the management measures are evaluated.

***Coronella austriaca* (Threatened)**

No actual information is available.

***Hyla arborea* (Threatened)**

There is an equivocal situation: in some parts of the country the situation has much improved, in other parts not. The species is doing well in the eastern provinces of Gelderland and Overijssel, where habitats have been restored and created at a rather

large scale. In the other parts the Tree frogs habitats are suffering from increasing pressure by town development and road construction.

***Lacerta agilis* (Vulnerable)**

The species is doing well in parts of the coastal sand dunes and in some inland heathlands, probably as a result of some consecutive warm summers. However, the habitat area is still decreasing by lack of

management and by mismanagement of heathlands. The current management of forests and heathlands needs to be adapted for Sand lizards (with positive effects on other reptiles as well).

Natrix natrix (Vulnerable)

The situation of the Grass snake is stable, with the exception of built-up areas, where half of the populations are threatened. Negative effects are expected from the housing development in the lake IJsselmeer near Amsterdam.

Pelobates fuscus (Threatened)

The Spadefoot toad inhabits cultural landscapes where always conflicts arise with the land use by man, resulting in the loss of habitat. The few habitats in nature areas are threatened by the acidification of pools. Its range is decreasing and the reproduction is generally low. The situation is worsening, pushing this species towards the category 'Endangered'.

Podarcis muralis (Endangered)

The single population at Maastricht is doing extremely well. The population is divided into two isolated sub-populations. After some years of successful reproduction the sub-populations have reached their maximum densities. Previous habitats in the near vicinity have been restored recently, but it is doubted whether migrants are able to colonise those sites.

Rana arvalis (Vulnerable)

Occasional reports point at a decline. The Moor frog has disappeared from many stream valleys and from the eastern edges of the Veluwe area.

Rana lessonae (Vulnerable)

This species mostly lives in mixed populations with *Rana kl. esculenta*, where it has a minority. Only five more or less pure populations of *R. lessonae* are known. For conservation purposes, studies are needed on the fitness of these populations and on the degree of exchange with other green frogs.

Salamandra salamandra (Threatened)

The situation of the habitat has not changed, but an actual threat is the deliberate release of alien specimen in large quantities.

Triturus cristatus (Vulnerable)

Recent surveys have shown that the Great crested newt is still present at quite a lot of sites, but on the whole a slight decrease has been recorded.

Triturus helveticus (Vulnerable)

Only little information is available. Recently, some reproduction waters have got lost.

Vipera berus (Vulnerable)

The northern populations in Drenthe are stable, whereas a lot of habitat has got lost at the Veluwe area, due to a changed forestry management (disappearance of coppice). Some important hibernacula have been destroyed recently.

Zootoca vivipara (Not [yet] threatened)

A decline has been established during the last years, due to a loss of habitat and by effects of drainage. The Common lizard has almost completely disappeared from the cultural landscape.

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9. ROMANIA / ROUMANIE

REPORT ON THE CONSERVATION OF AMPHIBIANS AND REPTILES IN ROMANIA

Romania is a country with a rather high herpetological biodiversity (19 species of amphibians and 23 of reptiles), showing a mix of Central European (and Euro-Siberian) species with a number of Mediterranean and Ponto-Sarmatic elements. Like most European countries Romania has to confront various environmental problems caused by economical and social development. Unfortunately little attention has been paid to the specific topic of the conservation of the Romanian herpetofauna, although given its low dispersion capabilities, high fidelity to particular favourable sites (e. g. breeding sites) and relatively great sensitivity to human disturbance, amphibian and reptile species would make good indicators for the quality of natural habitats.

General situation of the natural habitat of Romania's amphibians and reptiles

Unfortunately little pristine, undisturbed habitats remain in Romania. Most of the country has been somehow affected by various land usage techniques, of which the traditional ones are the less destructive: grazing, subsistence woodcutting (for fuel and domestic use), traditional small-scale agriculture and horticulture; however, the last five decades have witnessed large-scale implementing of far more destructive land use techniques, such as intensive modern (i. e. mechanized and using chemical pesticides and fertilizers) agriculture, commercial clear-cutting of forests (sometimes with subsequent replanting of non-native tree species), large-scale draining of wetlands, industrial and urban development with subsequent air, soil and water pollution. Conversely, most lowland habitats have been lost to the above-mentioned factors, and only patches of native lowland habitat remain; most of the Danube floodplain was drained, and so was part of the Danube Delta; and most of the viable native habitats remain in the mountains or in places of difficult access (such as rocky or karstic regions). Most of the native species of amphibians and reptiles have lost the largest part of their former range and have been unable to survive in severely man-modified habitats. They only survive in fragmentary remains of their former areal and even there they are subject to human pressure through unsustainable use of their habitats (such as grazing and wood collecting, which cannot be practised in agricultural monocultures and concentrate upon the small areas of remaining natural vegetation) and sometimes through deliberate killing or illegal collecting. All problems regarding habitat degradation are compounded by a more or less pronounced multi-year drought that has afflicted Romania since 2000.

Attitude of people towards amphibians and reptiles

Most Romanians do not have a good opinion about amphibians and reptiles, which are largely perceived as scabrous, useless and even dangerous; most rural people fear all snakes and even some lizards (not only the legless Slowworm, but also legged lizards) and newts, as allegedly venomous. Animals thus labelled dangerous are most often killed on sight. Fishermen sometimes kill turtles as „competitors” for fish. Sometimes even acknowledged harmless species like land tortoises are harmed: we have seen tortoises with traces of injury that were clearly produced by striking at the animals with axes or iron rods. However, the last years have seen a totally different trend, but equally damaging to herpetofaunal populations. Some urban people have taken to the Western fashion of keeping reptiles and amphibians as pets and an illegal market immediately arose to satisfy this demand. Subsequently wild species, particularly tortoises and turtles, but also snakes and newts, and sometimes salamanders and frogs, have been caught for the local pet trade. As expected, most buyers do not know to care for what they acquire and the animals die quickly. Besides that, some people have tried to start businesses of exporting viper venom; some have attempted farming (using wild-caught specimens) and most of them have failed, while others do not even bother attempting to farm the snakes and simply milk wild-caught specimens for whom they do not look after. As a result, there are organized gangs of viper poachers operating in some regions; paradoxically, these gangs are better equipped with snake-handling devices and antivenomous serum than the few and poorly funded herpetological researchers or game or park rangers. There is also unsustainable harvest of some species for the food industry, especially the Grass Frog *Rana temporaria*, which is gathered in large quantities for local demands but also for exportation.

Vandalism and irresponsible tourism are also unfortunately common, as illustrated by the following example: in 2000 a large forest fire was started by barbecue-makers in Domogled National Park, home to an impressive herpetofaunal diversity.

Environmental law in Romania; its pertinence to herpetofaunal conservation

Environmental law in Romania is well-intended and quite comprehensive, Romanian legislators being interested in creating a progressive legislation that will suit European requirements in this field. Among the legislative measures we might review some of the most significant:

Law no. 5/1991: Romania joins Ramsar convention; provides need for protecting wetlands.

Law no. 13/1993: Romania joins Bern convention; all herpetofauna thus protected.

Law no. 58/1994: Romania ratifies Rio de Janeiro biodiversity convention.

Law no. 69/1994: Romania part of CITES.

Law no. 30/1995: Romania part of Helsinki convention.

Law no. 137/1996: Environment law. General measures providing basis for further protective laws.

Law no. 26/1996: Forestry law. Provides measures for forest conservation and sustainable use.

Law no. 107/1996: Waters law. Provides measures for the conservation and sustainable use of waterbodies and wetlands.

Law no. 13/1998: Romania joins Bonn convention.

Law no. 5/2000: Protected areas' law. Creates and confirms extensive network of protected areas, including several new National Parks, some in areas very rich with herpetofauna.

Law no. 462/2001: Statute of protected areas, habitats and wildlife species. Provides additional conservation measures for amphibians and reptiles, such as the possibility of designating new protected areas for sites harbouring certain endangered species.

The real problem is enforcing these laws, as the field force established to this purpose (Environment Protection Agencies, Environment Guard, parks and reserves rangers, game rangers and forest wardens, environment-oriented police officers) is critically undermanned, low on funds and hampered by bureaucracy. Most protected areas are thus unpatrolled for most of the time, making it easy for poachers and even vandals to escape notice. Even so, the enforcing officers have managed to reduce significantly the incidence of illegal reptile dealings in Bucharest, and at least some park and forest rangers have had some success in curbing poaching. However, for law enforcing to be successful there is need of more than prosecution of the guilty; there is need for educating the people (particularly the youngsters) in the spirit of respecting and not harming wildlife, including reptiles and amphibians. Environmental education is not the strong point of Romania; such initiatives as environmental awareness campaigns are rare and schools seldom address this issue in an efficient way.

Some non-governmental activities and internationally financed programs that (also) address the conservation of amphibians and reptiles

A lot of NGOs are active in Romania, some of which do perform activities with a positive impact upon the conservation of amphibians and reptiles. A Romanian Herpetological Society, affiliated with SEH, has been recently established with „headquarters” at Cluj and it has already begun a campaign in order to reduce the illegal gathering of *Rana temporaria*. Another NGO, the ECOS organization, based in Tulcea, with its special herpetofaunal conservation group RANA, has participated in PHARE Multicountry Programme for the Environment project L05744 („Developing a Non-Governmental Network for the Protection of Native Amphibians and Reptiles), and in the LIFE-Nature project LIFE/NAT/RO/06404 „In situ conservation of the Romanian Meadow Viper (*Vipera ursinii*)” (ended 2002 with encouraging reports). Another LIFE-Nature project: LIFE/NAT/RO/007171 „Iron Gates Natural Park – habitat conservation and management” (to end in 2004) was launched by the University of Bucharest through its Center for Environmental Research and Impact Studies; it targets *Testudo hermanni* and *Vipera ammodytes* among other species and reports success in captive breeding for

Hermann's Tortoise. Awareness campaigns have also been started through the above-mentioned organisms and projects. However, despite these efforts, public awareness on the subject of herpetofaunal conservation is minimal and definitely needs much more to be done, with the necessary caution of not to point to the poachers remaining population of endangered species as it may eventually happen with such initiatives.

Status of Romanian amphibians and reptiles (following IUCN criteria)

The conservation status of the amphibians and reptiles of Romania through time (according to published evaluations) is summarized in the table below. One of the authors (Cogălniceanu, 1997) only dealt with amphibians. Sadly our last evaluation mainly reflects changes to worse; the seeming improvements are actually created by the establishment of new categories such as Near Threatened that include species previously lumped as Vulnerable for lack of more precise categories.

Taxon	Cogălniceanu & Venczel, 1993	Cogălniceanu, 1997	Iftime, 2003 (in press)
<i>Salamandra salamandra</i>	VU	VU	VU
<i>Triturus alpestris</i>	VU	VU	VU
<i>Triturus cristatus</i>	VU	VU	VU
<i>Triturus dobrogicus</i>	EN	EN	EN
<i>Triturus montandoni</i>	R („rare”)	VU	VU
<i>Triturus vulgaris vulgaris</i>	LR: LC	LR	NT
<i>Triturus vulgaris ampelensis</i>	VU	VU	VU
<i>Bombina bombina</i>	VU	VU	NT
<i>Bombina variegata</i>	LR: LC	LR	NT
<i>Pelobates fuscus</i>	VU	VU	VU
<i>Pelobates syriacus</i>	EN	EN	EN
<i>Bufo bufo</i>	VU	VU	NT
<i>Bufo viridis</i>	LR: LC	LR	NT
<i>Hyla arborea</i>	VU	VU	VU
<i>Rana arvalis</i>	EN	EN	EN
<i>Rana dalmatina</i>	VU	VU	VU
<i>Rana lessonae</i>	DD	DD	LC
<i>Rana ridibunda</i>	LR: LC	LR	LC
<i>Rana temporaria</i>	VU	VU	VU
<i>Rana esculenta</i>	LR: LC	LR	LC
<i>Testudo graeca</i>	EN	-	EN
<i>Testudo hermanni</i>	EN	-	EN
<i>Emys orbicularis</i>	VU	-	VU
<i>Ablepharus kitaibelli</i>	VU	-	EN
<i>Eremias arguta</i>	EN	-	EN
<i>Lacerta agilis</i>	VU	-	LC
<i>Lacerta trilineata</i>	VU	-	EN
<i>Lacerta viridis</i>	VU	-	LC

<i>Lacerta vivipara</i>	LR: LC	-	LC
<i>Lacerta praticola</i>	VU	-	VU
<i>Podarcis muralis</i>	VU	-	VU
<i>Podarcis taurica</i>	VU	-	NT
<i>Anguis fragilis</i>	VU	-	VU
<i>Eryx jaculus</i>	EX?	-	CR/EX
<i>Coluber caspius</i>	VU	-	VU
<i>Coronella austriaca</i>	VU	-	VU
<i>Elaphe longissima</i>	VU	-	VU
<i>Elaphe quatuorlineata</i>	EN	-	CR
<i>Natrix natrix</i>	LR: LC	-	LC
<i>Natrix tessellata</i>	VU	-	VU
<i>Vipera ammodytes ammodytes</i>	VU	-	EN
<i>Vipera ammodytes montandoni</i>	VU	-	CR
<i>Vipera berus</i>	LR: LC	-	EN
<i>Vipera ursinii moldavica</i>	EN	-	CR
<i>Vipera ursinii rakosiensis</i>	EN	-	CR
<i>Vipera (ursinii) renardi</i>	EN	-	CR

Detailed description of the status of Romanian species of amphibians and reptiles

For each species the IUCN status and criteria are presented, together with a brief assessment of the main causes for decline. Acknowledge global decline factors that have not been specifically shown to be involved in the decline of Romanian populations (such as epidemics or increased impact of UV-B radiation) have not been included.

***Salamandra salamandra*:** VU A2,4 ace. In sharp decline in the last years, because of habitat loss by accelerating deforestation and expansion of residential and touristic development. Increasing tapping of water supplies for human use can also be a threat, especially in times of drought.

***Triturus alpestris*:** VU A2,4 ace. Decline through habitat loss and degradation, especially the loss of breeding ponds, by increased residential and touristic development, deforestation, road building, tapping of water sources, pollution of breeding ponds and overgrazing (with pollution of breeding ponds by manure). The introduction of trout into some alpine lakes has lead to the collapse of the local populations of *T. alpestris*. In intensely developed montane touristic areas most populations are gravely afflicted, some even extinct.

***Triturus cristatus*:** VU A2,4 acde. Grave decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Is also illegally collected for the pet trade.

***Triturus dobrogicus*:** EN A2,4 ace, B1 bc. Severe decline by degradation and destruction of habitat, especially breeding ponds. More than half of the species' original habitat has been lost through the drainage of most of the Danube floodplain and associated lakes. The pollution of the Danube is also a threat. Has a restricted areal along the Danube, the Danube Delta and a few large rivers.

***Triturus montandoni*:** VU A2,4 ace, B1 bc. Decline through habitat loss and degradation, especially the loss of breeding ponds, by increased residential and touristic development, deforestation, road building, tapping of water sources, pollution of breeding ponds and overgrazing (with pollution of breeding ponds by manure). In intensely developed montane touristic areas most populations are gravely afflicted, some even extinct. Is more localised than *T. alpestris*.

Triturus vulgaris vulgaris: NT A2,4 acde. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Is also illegally collected for the pet trade. For the time being it bears the anthropic pressure better than other tailed amphibians.

Triturus vulgaris ampeleensis: VU A2,4 ace, B1 bc. Grave decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, deforestation and subsequent erosion, pollution (industrial waste, mines' tailings, sewage). Is also illegally collected for the pet trade. The introduction of fish (such as trout) into some lakes used by this subspecies has led to the collapse of the newt populations. Is a Romanian endemic subspecies with a restricted areal, most of which is industrially developed and therefore subject to pollution. It may be extinct on the Ampoi valley, its type locality; the lake Ighiel population is extinct (Cogălniceanu, 1989).

Bombina bombina: NT A2,4 ace. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds), expansion of agricultural lands, draining of ponds; afflicted by drought. In the past was abundant, now rarer, locally in severe decline, such as the Someș bassin (Török, 1999).

Bombina variegata: NT A2,4 ace. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (industrial and domestic), tapping of water sources. In the past was enormously abundant all over the Carpathians, now locally in decline.

Pelobates fuscus: VU A2,4 ace. Grave decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Drought can cause mass mortality.

Pelobates syriacus: EN A2,4 ace. Extremely grave decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). The draining and plowing of most of the Danube floodplain deprived this species of a large part of its habitat. Drought can cause mass mortality; some populations extinct, including the westernmost in Romania at Ada-Kale.

Bufo bufo: NT A2,4 ace. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Is afflicted by deforestation and drought. Formerly abundant, now locally in decline.

Bufo viridis: NT A2,4 ace. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Formerly an extremely abundant species, that colonized human-modified biotopes and even human habitations; now locally in decline, but still frequent in places.

Hyla arborea: VU A 2,4 ace. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Is afflicted by deforestation and drought.

Rana arvalis: EN A2,4 acde. Grave decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Is afflicted by deforestation and drought, but the greatest threat is the drainage of marshes for agriculture and other purposes. Romanian populations are small, at the southern limit of the European areal, therefore highly vulnerable. In one of its former strongholds, the Ier bassin, populations have been reduced to less than half by drainage works (Cogălniceanu & Venczel,

1993). The Lăpuș valley population is extinct (Török, 1997); all other populations threatened. A potential threat may come from gathering for consume.

***Rana dalmatina*:** VU A2,4 acde. Grave decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution (especially agricultural pesticides and fertilizers, but also domestic sewage, that wash into breeding ponds). Is afflicted by deforestation and drought. Was formerly common, but now scarce, especially in the southern half of the country. A potential threat may come from gathering for consume.

***Rana temporaria*:** VU A2,4 acde. Decline through destruction, degradation and fragmentation of habitat, especially breeding ponds, by expansion of industrial, touristic and residential development, pollution, deforestation, road building, overgrazing, but especially because of intense illegal collection for human consume. Is still common in places, but scarce now over most of its range, especially where collected.

***Rana lessonae*:** LC. Still common, often confused with *R. kl esculenta* in faunal surveys. Despite that, existing data suggest that it is widespread in Romania (Cogălniceanu, Aioanei & Matei, 2000; Cogălniceanu & Tesio, 1993; Fuhn, 1960; Oțel, 2000; Șova & Tărăbușă, 1963; Török, pers. comm., personal observations). As most *R. esculenta* populations are not pure but also include *R. lessonae*, because of the hybridogenetic propagation of *R. esculenta* that needs *R. lessonae* for success, fertility being low where there is no *R. lessonae* (Berger, 1973; Ogielska, 1999), and as pure *R. esculenta* populations are very rare, especially in Eastern Europe (Lada, 1999; Mikulicek & Kotlik, 1999), it is logical to presume that in Romania, too, mixed *R. esculenta* and *R. lessonae* populations predominate versus pure *R. esculenta* and thus *R. esculenta* reports are in fact mostly mixed populations. Therefore we consider that, like *R. esculenta*, *R. lessonae* is widespread all over Romania and tolerates well, for the moment, the antropic pressure; the supposition that it may be out-competed by *R. esculenta* is contradicted by the observation that in the wild a balance between the two species is established by their particular reproductive mechanisms, as well as by different requirements for the oxygenation level of the (Hellriegel & Reyer, 1999; Pagano, Plenet & Joly, 1999). However, pure *R. lessonae* populations (i. e. without *R. esculenta*), such as that from Reci (Cogălniceanu & Tesio, 1993) are rare in Romania and deserve protection. A potential threat may come from gathering for consume.

***Rana ridibunda*:** LC. Still frequent and even abundant, widespread all over the country; for now it stands well the antropic impact, adapting to human-modified biotopes and to polluted waters; despite intense commercial exploitation, its numbers do not appear to decline yet.

***Rana esculenta*:** LC. Hybridogenous species, result of cross between *R. ridibunda* and *R. lessonae*. Widespread, frequent and abundant species, adaptable, numerous despite intense commercial exploitation.

***Testudo graeca*:** EN A2,4 acde. Very grave decline, due to illegal collecting for the pet trade, and also to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic and industrial (e.g. stone quarries) development and of cultivation. Pesticide pollution, as well as predation of eggs and juveniles by dogs and pigs, and degradation of vegetal cover by grazing cattle, sheep and goats in remaining forest, woodland and scrub, all contribute to declines. Many populations extinct, the remainder severely threatened.

***Testudo hermanni*:** EN A2,4 acde. Very grave decline, due to illegal collecting for the pet trade, and also to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic and industrial (e.g. stone quarries) development and of cultivation. Pesticide pollution, as well as predation of eggs and juveniles by dogs and pigs, and degradation of vegetal cover by grazing cattle, sheep and goats in remaining forest, woodland and scrub, all contribute to declines. Many populations extinct, the remainder severely threatened.

***Emys orbicularis*:** VU A2,4 acde. Severe decline, due mainly to the destruction, degradation and fragmentation of habitat, by pollution (with industrial residue, agricultural pesticides and fertilizers and sewage), drainage for extension of agricultural, residential, touristic and industrial development; illegal collection for the pet trade also take a toll. Is afflicted by drought.

Ablepharus kitaibelli: EN A2,4 ace. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats in remaining forest, woodland and scrub. Some populations are extinct, others severely threatened, only a few still healthy.

Eremias arguta: EN A2,4 ace, B1 ab. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide pollution, as well as degradation of vegetal cover by grazing cattle and sheep in sandy areas. Planting dunes with American honey locust, in order to fix them, leads to their covering in soil and to the disappearance of the native vegetation, therefore of the entire sand-area biocenosis; this has happened in an area with *Eremias* leading to the demise of that population. In Romania, small areal and strict ecological requirements that make it vulnerable. Some populations extinct.

Lacerta agilis: LC. Still widespread, adaptable species, tolerant of man-modified biotopes to some extent; still frequent for now, but some populations show local decline.

Lacerta trilineata: EN A2,4 ace, B1 ab. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. The replacement of native steppe vegetation with cultures has deprived this species of more than 80% of its former habitat.

Lacerta viridis: LC. Still widespread, adaptable species, tolerant of man-modified biotopes to some extent; still frequent for now, but some populations show local decline.

Lacerta vivipara: LC. Still widespread and frequent in montane biotopes, locally abundant; there are some local declines.

Lacerta praticola: VU A2,4 ace, B1 ab. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Some populations extinct, the remainder threatened.

Podarcis muralis: VU A2,4 ace. Decline due to habitat destruction, degradation and fragmentation by residential, touristic and industrial (e.g. stone quarries) development, and pesticide pollution. Some populations extinct, others threatened; however, still numerous in places.

Podarcis taurica: NT A2,4 ace. Decline due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. The replacement of native steppe vegetation with cultures has deprived this species of more than 60% of its former habitat. Some populations extinct, others threatened, yet still frequent in places, even adapting to some man-modified habitats.

Anguis fragilis: VU A2,4 ace. Decline due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats.

Eryx jaculus: CR/EX B1ab (i-v). Extremely grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road construction and other works, road traffic and direct killing by locals may be additional causes for mortality. Known in Romania only from 6 specimens, it wasn't reported since 1986 (Zinke și Hielscher, 1990); it is feared extinct, but the possibility of small populations surviving cannot be discounted.

Coluber caspius: VU A2,4 ace, C1,2a. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing

cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. Some populations extinct, others likely so, many more threatened.

***Coronella austriaca*:** VU A2,4 ace, C1,2a. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. Some populations extinct, others threatened.

***Elaphe longissima*:** VU A2,4 ace, C1,2a. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. Some populations extinct.

***Elaphe quatuorlineata*:** CR B1ab (i-v), C2a. Extremely grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. Most populations extinct; less than 10 reports in the last ten years.

***Natrix tessellata*:** VU A2,4 ace. Grave decline, due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, industrial, pesticide, fertilizers and sewage pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals (which can amount to tens per day at some places) are additional causes for mortality. However still common at some locations.

***Natrix natrix*:** LC. Widespread, still frequent and locally numerous, adaptable and tolerant for now to the antropic impact, despite the immense number of specimens yearly killed by natives and in road traffic.

***Vipera berus*:** EN A2,4 acde. Grave decline, due equally to illegal collecting (for venom commercialization) and to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. Some population may be extinct; many more are threatened.

***Vipera ammodytes ammodytes*:** EN A2,4 acde. Grave decline, due equally to illegal collecting (for venom commercialization) and to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. Some populations extinct, practically all the remainder threatened.

***Vipera ammodytes montandoni*:** CR A2 acde, B1ab (i-v). Extremely grave decline, due equally to illegal collecting (for venom commercialization) and to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats. Road traffic and direct killing by locals are additional causes for mortality. A subspecies with a restricted areal. Some populations extinct (such as Beştepe – see Török 2000 a), all the remainder severely threatened.

***Vipera ursinii moldavica*:** CR A2,4 acde, B1 ab (i-v). Extremely grave decline, mainly due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats; also due to illegal collecting (for venom commercialization). Road traffic and direct killing by locals are additional causes for mortality. A localized subspecies with a restricted areal. Most Romanian populations likely extinct; the only one that certainly survives is severely threatened.

Vipera ursinii rakosiensis: CR B2 ab (i-v). Extremely grave decline, mainly due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats; also due to illegal collecting (for venom commercialization). Road traffic and direct killing by locals are additional causes for mortality. Extinct at its best-known site in Romania, near Cluj, where last seen in 1955 (Török, 2000 b); however it was reported at other locations where it appears to survive, albeit severely threatened.

Vipera (ursinii) renardi: CR B1ab (iii, v). Grave decline, mainly due to habitat destruction, degradation and fragmentation by deforestation, extension of residential, touristic, agricultural and industrial development, pesticide and fertilizers pollution, as well as degradation of vegetal cover by grazing cattle, sheep and goats; also due to illegal collecting (for venom commercialization). Road traffic and direct killing by locals are additional causes for mortality. Some populations extinct, the remainder severely threatened (Török, 2000 b).

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10. SLOVAKIA / SLOVAQUIE

Short Report on the situation of Amphibians and Reptiles

in Slovakia listed in the Bern Convention

From total number of 18 amphibians, 3 (*Triturus cristatus*, *Bombina bombina*, *Hyla arborea*) are included in proposal of plans to protect threatened species of amphibians and reptiles in Europe.

From total number of 12 reptiles, 2 (*Lacerta agilis*, *Zootoca vivipara pannonica*) are included in proposal of plans to protect threatened species of amphibians and reptiles in Europe.

Taxa	Category		
	Baruš et al. 1989	Jedlička ed. 1995	Proposal 1998
<i>Triturus cristatus</i>	<i>E</i>	<i>E</i>	<i>EN</i>
<i>Bombina bombina</i>	-	<i>E</i>	<i>LR:lc</i>
<i>Hyla arborea</i>	<i>V</i>	<i>V</i>	<i>LR:lc</i>
<i>Lacerta agilis</i>	-	<i>V</i>	<i>LR:lc</i>
<i>Zootoca (Lacerta) vivipara pannonica</i>	-	-	-
only <i>Lacerta vivipara</i>	<i>V</i>	<i>V</i>	<i>LR:nt</i>

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National report on progress on conservation of Amphibians and Reptiles in Slovakia listed in the Bern Convention since 1998.

Species of Bern Convention App. III.

Name of species	Threat 1998	Threat 2001	Order of the MoE SR No. 93/1999	Order of the MoE SR No. 24/2003	Habitats Directive	Distribution / population trend	Monitoring	Management
Reptiles								
<i>Ablepharus kitaibelii</i>	EN	LR:lc	CR	4b, 6a	HD IV	local occurrence in southernpart of Slovakia	irregular	management of biotopes
<i>Lacerta vivipara</i>	LR	LR:nt	EN	4b,6a	HD IV	local occurrence	local regular / SR irregular	management of biotopes
<i>Anguis fragilis</i>	LR	LR:nt	VU	4b, 6b	-	the forest areas of Slovakia /stabil population	local regular / SR irregular	management of biotopes
<i>Coronella austriaca</i>	LR	VU	EN	4b, 6a	HD II	local occurrence in Slovakia /relative stabile population	local regular / SR irregular	management of biotopes
<i>Natrix natrix</i>	LR	LR:lc	VU	4b, 6b	-	almost the whole territory of Slovakia / stabil population	local regular / SR irregular	management of biotopes
<i>Vipera berus</i>	VU	VU	EN	4b, 6b	HD IV	the mountain territory of Slovakia /stabil population	local regular / SR irregular	management of biotopes
Amphibians								
<i>Salamandra salamandra</i>	LR	LR:nt	EN	4b, 6b	-	the forest areas of Slovakia /stabil population	irregular / gestor-system	management and creation of new reproduction localities
<i>Triturus alpestris</i>	VU	VU	EN	4b, 6b	-	local occurence / stabil population	irregular / gestor-system	management and creation of new reproduction localities
<i>Triturus vulgaris</i>	VU	VU	EN	4b, 6b	-	the forest areas of Slovakia /stabil population	irregular / gestor-system	management and creation of new reproduction localities

<i>Bufo bufo</i>	LR	LR:cd	EN	6b	-	almost the whole territory of Slovakia / stabil population	irregular / gestor-system	transfer in migration period; management and creation of new reproduction localities
<i>Rana kl. esculenta</i>	LR	LR:nt	EN	6b	HD V	almost the whole territory of Slovakia / stabil population	irregular / gestor-system	transfer in migration period; management and creation of new reproduction localities
<i>Rana lessonae</i>	VU	VU	EN	4b, 6a	HD IV	local occurrence / stabil population	irregular / gestor-system	transfer in migration period; management and creation of new reproduction localities
<i>Rana ridibunda</i>	EN	EN	CR	4b, 6b	HD V	local occurrence in southern part of Slovakia / stabil population	irregular / gestor-system	transfer in migration period; management and creation of new reproduction localities
<i>Rana temporaria</i>	LR	LR:lc	VU	6b	HD V	almost the whole territory of Slovakia / stabil population	irregular / gestor-system	transfer in migration period; management and creation of new reproduction localities

Species of Bern Convention App. II.

Name of species	Threat 1998	Threat 2001	Order of the MoE SR No. 93/1999	Order of the MoE SR No. 24/2003	Habitats Directive	Distribution / population trend	Monitoring	Management
Reptiles								
<i>Emys orbicularis</i>	CR	CR	CR	4b, 6a	HD II, IV	"relative stabile population/ < 10 locality in Slovakia"	telemetry regular, partly under Partial Monitoring System Biota	realization of arrangements of „Rescue plan of <i>Emys orbicularis</i> “, telemetry, protection of growth stages (e.g. eggs), rescue breeding in breeding centres, management of biotopes
<i>Lacerta agilis</i>	LR	-	VU	6a		"almost the whole territory of Slovakia"	local regular/SR irregular	management of biotopes
<i>Lacerta muralis</i>	LR	LR:lc	EN	4b, 6a	HD IV	"relative stabile population/	local regular/SR	management of biotopes

(=Podarcis muralis)						local occurrence in Slovakia"	irregular	
<i>Lacerta viridis</i>	VU	VU	EN	4b, 6a	HD IV	"relative stabile population/ local occurrence in Slovakia"	local regular/SR irregular	management of biotopes
Natrix tessellata	LR	VU	CR	4b, 6a	HD IV	insufficient data	irregular	management of biotopes
<i>Elaphe longissima</i>	LR	LR:cd	EN	4b, 6a	HD IV	relative stabile population/ local occurrence in Slovakia"	local regular/SR irregular	management of biotopes
Amphibians								
<i>Triturus cristatus</i> (<i>Triturus cristatus cristatus</i>)	EN	EN	CR	4b, 6a	HD II, IV	"northern part of SR/ decreasing"	irregular	management and creation of new reproduction localities
<i>Triturus dobrogicus</i> (<i>Triturus cristatus dobrogicus</i>)	EN	EN	EN	4b, 6b	HD II	southern part of Slovakia	irregular	management and creation of new reproduction localities
<i>Triturus montandoni</i>	VU	VU	EN	4b, 6b	HD IIe, IVe	Karpathian endemit	irregular	management and creation of new reproduction localities
<i>Bombina bombina</i>	LR	LR:cd	EN	4b, 6a	HD II, IV	"mountaineous region of northern part of Slovakia/ slowly decreasing"	irregular	management of biotopes
<i>Bombina variegata</i>	LR	LR:cd	VU	4b, 6a	HD II, IV	"lowlands of southern part of Slovakia/decreasing"	irregular	management of biotopes
<i>Pelobates fuscus</i>	LR	LR:cd	CR	6a	HD IV	"southern part of Slovakia/ decreasing"	irregular	management of biotopes
<i>Bufo viridis</i>	LR	LR:cd	VU	4b, 6a	HD IV	"<800m above sea level except large forest units/ decreasing"	irregular	transfer in migration period; monitoring and management of reproduction localities
<i>Hyla arborea</i>	LR	LR:nt	EN	4b, 6a	HD IV	"<500-600m above sea level regular occurrence"	irregular	management of biotopes
<i>Rana arvalis</i>	LR	VU	EN	6a	HD IV	local distribution/ decreasing	irregular	transfer in migration period; management and creation of new reproduction localities
<i>Rana dalmatina</i>	LR	LR:lc	EN	6a	HD IV	"occurrence in middle altitude and lowlands and in areas without occurrence of <i>Rana arvalis</i> "	irregular	transfer in migration period; management and creation of new reproduction localities

Legend:

- **List of fauna species of Bern Convention (App. II, III) occurred in Slovakia**
- **Categories of endangerment IUCN (1995)**
 - EX - Extinct
 - EW - Extinct in Wild
 - RE - Regional Extinct
 - CR - Critically Endangered
 - EN - Endangered
 - VU - Vulnerable
 - LR - Lower Risk
 - cd - Conservation Dependent
 - nt - Near Threatened
 - lc - Least Concern
 - DD - data deficient
 - NE - Not Evaluated
- **COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (“Habitats Directive”)**
 - HD II** - Habitats Directive - Appendix II
 - HD IIe** - Habitats Directive – Appendix II (proposed species)
 - HD IV** - Habitats Directive - Appendix IV
 - HD IVe** - Habitats Directive – Appendix IV (proposed species)
 - HD V** - Habitats Directive - Appendix V
- **Order of the Ministry of Environment SR No. 24/2003**
 - 4b – species of european interest for which protected areas are designated
 - 6a – species of european interest
 - 6b – species of national interest

Note:

Within particular years the monitoring is carried out in different selected parts of Slovakia, especially in protected areas, proposed protected areas, areas proposed to NATURA 2000 network and areas potentially impacted with a human activity.

Regular monitoring is further carried out in the areas with practical conservation measurements for reptiles and amphibians, e.g. the annual transfers of amphibians in a reproduction period, regular monitoring of the reproduction plots and telemetry of adult individuals of critically endangered *Emys orbicularis*.

Species management is carried out through protection of their habitat, especially creation the suitable habitat conditions (building-up and protection of new reproduction plots, maintenance of optimal hydrological regime on existing plots, clearing-up of the stands of occurrence, elimination of shrubs, etc.). Migration tunnels and crossing points that eliminate the losses of animals on migration are building-up as a part of new road communications.

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Note: Situation 30. 8. 2003

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11. SWEDEN / SUEDE

AMPHIBIAN AND REPTILE CONSERVATION IN SWEDEN – A PROGRESS REPORT

During the last 5 years, significant efforts have been made in the area of reptile and particularly amphibian conservation. There are 6 species of reptiles and 13 species of amphibians, 3 and 9, respectively are included in the National Red List.

Reptiles

All reptile species are fully protected. Only one species, *Lacerta agilis*, is subject to (local) conservation activities and inventories in some counties. Action Plan is under preparation.

Amphibians

All species are fully protected and several species are subject to conservation activities. Artificial breeding of amphibians for later release as part of Action Plans is carried out at 4 institutions. The following information concern some of the threatened species, which all except the pool frog are confined to the southernmost counties in Sweden:

Pool frog *Rana lessonae*: Action Plan is in place since 2000. Sweden harbours more than 90 % of the total Fennoscandian population. Conservation measures include restoration of 3 ponds, all of them used by breeding animals within 2 years. Since 1994 25 local populations have died out and in 22 other ponds a new population has been established.

Spadefoot toad *Pelobates fuscus*: Action Plan is in place since 2001. Only Denmark and Sweden support populations in Fennoscandia. Conservation measures include restoration and creation of several breeding ponds and the designation of nature reserves. The long-term objective is to find at least 4 000 males distributed among 150 breeding ponds. A slow increase in number and sites has been recorded in recent years. Elimination of fish has resulted in significant local population increase.

Natterjack toad *Bufo calamita*: An Action Plan is in place since 2000. The goal is to establish self-sufficient metapopulations in 15 and later 30 localities within the former distribution area of the species. As part of the Action Plan, several new ponds have been created and some new Nature Reserves have been designated for this species. The general population is believed to be stable or slowly increasing.

Tree frog (*Hyla arborea*): Conservation measures have been taken since many years, several population surveys have been carried out and an Action Plan is implemented since 2001. More than 100 breeding ponds have been created or restored during the last 20 years and a significant increase in population size has been observed. In early 1980's the total population probably amounted to about 3 500 calling males. In 2000 about 14 000 males were recorded at 410 sites. The corresponding figure in 2001 was about 20 000 males at about 549 sites and the increase has continued, although no exact figures are available for the last two years.

Green toad (*Bufo viridis*): The most rare and problematic species in terms of conservation status. There are less than 5 sites where the species are found today in spite of extensive conservation measures within the framework of an Action Plan, adopted in 2000. Only two sites hold populations exceeding 150 specimens. The actions taken include artificial breeding and release of larvae and subadult animals to enhance existing populations, creation of suitable ponds and designation of nature reserves. Re-introduction of specimens have also taken place at some sites, where the species has disappeared. The results have so far not been successful.

Fire-bellied toad (*Bombina orientalis*): The species went extinct in the 1960's, but has been subject to re-introductions. A total number of nearly 2 000 3-week old specimens were released 1998-2002. An Action Plan is in operation since 2000. During the last years, has a significant increase in numbers has been recorded. In 1993, the total Swedish population was estimated to about 300 animals, occurring in 15 breeding ponds. The increase is particularly significant in the central part of Skåne, where in 2003 probably about 3 000 toads are found in 71 small waters. In some of these ponds, re-

introduction has taken place, but between 2002 and 2003, 11 breeding ponds have been inhabited spontaneously. The species is reported in 5 Natura 2000 sites.

Agile frog (*Rana dalmatina*): Restricted to the most south-eastern regions in the country. The species has been subject to long-term population studies on the island of Öland, where one of its strongholds is found. The total population size is unknown. An Action Plan is under preparation.

Great crested newt (*Triturus cristatus*): Distributed in southern Sweden and found in a large number of sites. Total population size unknown, but local and regional surveys indicate that the species may be more common than expected. Local populations have been subject to ecological studies. The species are reported in 119 Natura 2000 sites.

12. SWITZERLAND / SUISSE

Report on progress of amphibians and reptiles conservation in Switzerland 1998-2003

by Mr Kurt Grossenbacher

Most activities in this field are promoted and/or coordinated by the KARCH (Centre of Coordination for the protection of amphibians and reptiles in Switzerland). The following cases might be of international interest:

- a database was created about all known road sectors in Switzerland where the problem of amphibians killed by traffic is documented. About 1000 such sectors are known, the KARCH gets an annual report about rescued amphibians from about 70 of these sectors.
- 2 international symposia took place in Switzerland: 20th/21st of November 1999 in Basel: „The midwife toad (*Alytes obstetricans*): distribution, biology, ecology and protection“. 23rd/24th of June 2000 in Lugano: „Protection of amphibians: strategy, experiences and problems“. Proceeding volumes of both symposiums are published.
- IANB (Federal Inventory of amphibian reproduction sites of national importance): this very important list of habitats and the „Amphibian Spawning Areas Ordinance“ respectively was implemented by the Federal Government at the 1st of August 2001. The list is comparable to the Natura 2000 project of the EU.

In the first round 625 (stationary) breeding habitats and 76 shifting habitats (situated mainly in gravel pits still working) were declared as of national importance. The exact borders of the stationary sites are defined. The cantons are now responsible for the legal protection, for contracts with the owners (when needed, e.g. for the coordination of exploitation and protection on shifting sites area) and the implementation of protection measures as well. They have to report the progress of implementation to the federal administration (BUWAL/SAEFL Swiss Agency for the Environment, Forests und Landscape) every second year. They are supported by the BUWAL (among other funds) and by a special consulting service.

An application guide was published in 2002. An additional set of 72 out of a preliminary list of about 200 sites with presumable national importance and under provisional protection is in preparation at the moment and should be enacted within the next weeks. A project to assess the success of the IANB is on the way, in coordination to the new Red List program (see below).

- A new version of the Red List of amphibians and reptiles in Switzerland – according to the new IUCN criteria - is planned for 2004. These criteria demand a monitoring of a set of populations in different parts of the country to recognize changes in the abundance of the involved species (decline, stable, increase). The habitats for this monitoring are now chosen, the methods (different for amphibians and reptiles) are defined and the first field season is over.
- Monitoring projects of several amphibian species:
- *Rana dalmatina*: a possible expansion of the area in NE-Switzerland (Cantons of Zurich and Thurgau) will be studied in the next years. Basis is a very detailed analysis of the now existing borderline of the *dalmatina*-area.
- *Hyla arborea*: a severe decline in some regions is observed; the creation of a habitat network in some bigger riverine valleys (Saane-Aare, lower Reuss, Rhine above Lake Constance) brought some promising results, e.g. near the upper border of ther Lake Constance. In other regions the colonization of newly created ponds is moving forward very slowly or doesn't work at all. Best results were reported from temporarily flooded marsh meadows.
- *Alytes obstetricans*: a decline in most of the regions is observed, in some regions even a severe decline; a detailed survey and monitoring in other regions resulted in the detection of a set of new, small populations although new colonisations seem to be rather rare. An explanation of this unbalanced development cannot be given at the moment. Regional action plans for this species are

running in central Switzerland and planned in other regions (e.g. Cantons St.Gallen and Appenzell).

- *Salamandra atra*: the status of this very special species is nearly unknown and difficult to analyze. Methods for identifying the population size and density were tested and further investigations are being planned.
- *Rana latastei*: every spring since 1996 a group of herpetologists is controlling all known breeding sites of *Rana latastei* (in most cases also of *Rana dalmatina*) in southernmost Switzerland. On a surface of 20 km² 25 such breeding sites were identified with a total number of about 1500 egg clutches of *Rana latastei* annually. Existing sites are managed, new ponds are created: by these means the status of *Rana latastei* in southern Switzerland could be stabilized. A recent study showed that the population is genetically depleted.
- *Bufo bufo*: in the last years observations of a severe decline of *Bufo bufo* populations in some habitats in the plain and at high elevations in the Alps were reported. Other big populations still exist. The reason for this phenomenon is unknown, first tests didn't show a clear result, more tests and collection of information are planned.
- The creation of new habitats for amphibians (mainly ponds) and reptiles (e.g. stone heaps) is done in an increasing amount by the instigation of local and national authorities and NGO's. Unfortunately the most of these habitats are quite small and a lot are isolated. At least the more abundant species are profiting of this new offer in the landscape.
- Reptiles
- In 2001 the Atlas of Reptiles in Switzerland could finally be published. The well illustrated book in 3 languages contains for each species maps of documented occurrence in a 5x5km-grid and maps of the potential area. Additional data are given for habitat analysis, association of species, regional richness of species, protection, management and monitoring.
- the criteria for an inventory of reptile habitats of national importance (comparable to the above mentioned IANB for amphibians) were defined, but not yet applied to the available reptile data.
- some regional monitoring projects for a set of reptile species were started: *Natrix maura*, *Vipera aspis* and *Lacerta bilineata* in the western cantons of Geneva, Vaud and Valais, all showing a clear decline; *Natrix natrix* in the Rhine valley of the Grisons a.s.o.
- *Emys orbicularis* reintroduction in Switzerland: a working group is defining criteria for such a project, which is promoted by a group of amateurs and pet keepers. New experiments and observations allow the conclusion, that a natural reproduction is possible in the Swiss plain. The KARCH doesn't consider this project as a priority.

More and more illegally released *Emys* (and *Trachemys*) are found in the field.

13. TURKEY / TURQUIE

As known, Turkey became a party to the Protection of European Wildlife and habitats (Bern) Convention in 1984.

In This respect, amphibians and reptiles living in the North – Eastern Anatolia (Hopa Region) are protected at the international level by the Bern, CITES, Ramsar and Biodiversity Conventions and at the national level by Land Hunting Law coded 4915 and Water Products Law coded 1380.

The amphibians and reptiles currently available in North – eastern Anatolia (Hopa Region) are protected and Biodiversity Conventions as well as the protected at the national level by the arrangements and provisions of the Land Hunting Law coded 4915 and the decisions of Central Hunting Committie (CHC) which are published annually in the content of the mentioned law. In this respect, fauna species which have social, cultural and eventually economic importance for the region has been taken under protection in the with Bern Convention together with their habitats. In this framework ; according to the decisions of CHC the protected turtles, snakes and lizards have been listed. Regarding the species the species in this context.

Catching, collecting of eggs and ruin nests of all types of reptiles are inhibited.

Hunting in the reproduction sites such as willow places, marshy places or ready places in reproduction period of March, April, May and July ; as well as ruining or giving harm to the sites prohibited.

Kaçkar Mountains National Parks, Hatila Valley National Park and Karagöl – Sahara National Park in the North – Eastern Anatolia are protected by the National Parks Law coded 2873.

In this context of the mentioned law; protection of ecological and biological aspects of the national parks and inherit of them to the following generations are essential. In this respect, the mentioned areas have legal status since 1994.

Up till now, because of its rich herpetofauna; the region was depicted to have priority for its habitats and wildlife and several projects for the region have been carried out.

In this framework; regarding the results of the project titled “ Developed of the Action Plans by Researching the Biological and Ecological Aspects of *Vipera wagneri* and *Vipera barani*” the living environments of these species are not under significant threat.

In the Hunter Education Courses special to Hopa Viper; an information meeting regarding the protection of all as to the amphibians and reptiles in the Hopa Region was held.

Also, Artvin – Camili – Efeler – Gorgit Region, which is settled within the North- Eastern Anatolia and important for the herpetofauna population, has been selected as the pilot region in the context of the GEF _ II protection of Biodiversity and Natural Resources Project”. One of the activities planned in the context of the project is carrying out a survey regarding the fauna and flora of the region. This survey will form the basis for the management which includes the ecological evaluations for the region.

Additionally, activities directed for increasing public awareness will also take place within the mentioned project. At the same time; the mentioned areas are declared as Nature Protection Area in the framework of National Parks Law.

In our country, while the implementation regarding forestation and erosion control activities are carried out, the ecological and biological values of the region is fastidiously taken into consideration and with the implementations of Pasture Law coded 4342 which came into force in 1998 overgrazing which ruins the pastures is prevented and proper grazing in pastures is enabled.

Control of Water Pollution Regulation was published 1988 and Prevention of Air Quality Regulation was published 1986 and Control of Soil Pollution Regulation was published in 2001 and all of them are in force.

The species related to Turkish Herpetofauna at the last meeting in Greece are listed below.

Mertensiella luschani

Rana holtzi

Trionyx triunguis

Caretta caretta

Chelonia mydas

Lacerta clarkorum

Lacerta mixta

Chamaeleo chamaeleon

Natrix megalocephala

Vipera kaznakovi

Vipera wagneri

There are no problems related the populations of *Mertensiella luschani*, *Lacerta clarkorum*, *Lacerta mixta*, *Chamaeleo chamaeleon*, and *Natrix megalocephala* and all these species are protected under the laws. The species of *Vipera kaznakovi* and *Vipera wagneri* and their population status are given under the information about Hopa region. *Rana holtzi* is also given as a separate topic. The loggerhead turtle, *Caretta caretta*, and The Green turtle *Chelonia mydas* and their final situation related to the conservation are given under the sea turtles section. The softshelled Nile turtle, *Trionyx triunguis* are also mentioned and given as a separate heading.

1. **Hopa**
2. ***Rana holtzi***
3. **Sea Turtles (*Caretta caretta* and *Chelonia mydas*)**

Only two species of sea turtles (*C. caretta* and *C. Mydas*) nesting on 17 important nesting beaches along the Turkish Mediterranean coast. All of these nesting beaches, feeding and wintering grounds are protected by the laws. As it is known, in 1990 in order to conserve the marine turtles in 17 important breeding areas in Turkish

Mediterranean Coasts, “Marine Turtles Monitoring Commission (Local, Scientific and Nationals)” consisting of the representatives from governmental agencies, universities and NGO’s has been set up under the coordination of Ministry of Environment and Forestry. We would like to express that Republic of Turkey has been merged under the Ministry of Environment and Forestry on 08th May 2003 so, above mentioned responsibility of coordination has been realized Ministry of Environment and Forestry.

In addition to the protection measures for sea turtles, since some of the nesting grounds hold also *Trionyx triunguis*, most of the studies concentrated on both species of turtles.

In the breeding season of 2003, the beaches of Dalyan, Dalaman, Fethiye, Belek, Kazanlı and Samandağı are being investigated by the teams from Universities. Both these Universities and Turtle Scientific Commission periodically makes the technical researches to those beaches in order to monitor the activities of marine turtles. Furthermore, this commission adopts some protection measures with related to the nesting areas of marine turtles. The protection measures are determined for most of the beaches and this protection measures included in the “Environmental Management Plan”. Under the scientific researches, the relocation of nests under risk of danger, caging and screening of nests, sex ratio and temperature profiles of the beaches are being investigated and the education seminars for local tourism people, public, and fishermen are being organized regularly. The illegal buildings are stopped and demolished as in the case of Kazanlı. The illegal sand extractions are also forbidden and relevant authorities are being noticed. The protection measures which are consistent with the recommendations of the Bern Secretary on Patara, and Kazanlı beaches and green turtles in the eastern Mediterranean are pursued by the Authority for the Specially Protected Areas of the Ministry and other relevant authorities. The required protection measurements are taken into account by the relevant institutions and the activities which have adverse effects on the environment are informed and sent formal letters to the related institutions by the Ministry.

4. *Trionyx triunguis* (Soft-shelled Nile Turtle)

Trionyx triunguis is protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and the Convention for the International Trade in Endangered Species (CMES) and is classified as Critically Endangered (CR-2A) by IUCN (International Union for the Conservation of Nature and Natural Resources). As Turkey signed the agreement on the Barcelona Convention in 1981 and related documents (Genova Declaration), this species is listed under the priority conservation and listed also under the list for urgent conservation by the Bern Convention (Convention on the Conservation of European Wildlife and Natural habitats).

The Nile Soft-shelled Turtle is a mainly African species whose distribution range, however, extends as far as the Mediterranean. The largest populations are known to occur in the Mediterranean and it is confined to a few countries such as Israel, Syria, Lebanon and Turkey (Baran and Atatür, 1998). In recent years, *T. triunguis* on Kos Island, Greece were also recorded (Taşkavak et al., 1996).

The first scientific research in Turkey was done by Başoğlu (1973) who compiled a preliminary report about a specimen of Soft-shelled turtle from South western Anatolia. Later, Atatür [(1979, 1991) investigated the morphology, osteology, biotope and distribution of *T. triunguis* in Anatolia; he also reported the survival chances of the Nile soft-shelled turtle in the Dalyan area (1991). The distributions of the species from Cheloniidae and Trionychidae along the Çukurova coast of Turkey were also investigated by Berk et al. 1988). Winden et al. (1994) also studied *T. triunguis* in the Göksu Delta, Turkey.

1 Dalaman ; 2 Seyhan River and Tuzla Drainage Channel

Large populations: 3 Dalyan; 4 Aksu River; 5 Anamur; 6Göksu River; 7 Berdan River; 8 Ceyhan River and Karatas Drainage Channel

Shows small populations: 9 Patara; 10 Fethiye; 11 Köprü Stream; 12 Bozyazi; 13 Asi River.

There were no detailed information on the breeding of this species. Under the supporting of Ministry of Environment and Forestry, Pamukkale University makes a detailed study in Dalaman area, which contains the largest population, for 2 years and this study will continue next year. Population size, reproductive ecology and the priorities for conservation are studied in details.

The conservation measures were concentrated on the dense population of Dalaman and Seyhan regions. Apart from the distribution studies, our Ministry funds the first scientific and detailed study for four years at Dalaman wetland region. The project is both investigating the Nile turtles and sea turtles together with the other faunal and floral information. According the results of this research, the necessary conservation measures were taken. For example, as Kükürtlü Lake is very important habitat for this species the nesting areas are cleaned, renourished and rehabilitated. This both enabled for turtles to nest and to bask. At least 95 % of these buildings are not finished and very few of them are being used so far by the tourists. There is also a hotel by this summer village, their west treatment unit is working and local authorities are checking the situation. There is no discharge of west water by this hotel but this hotel only discharging the thermal water which actually comes from the rocks within the garden of the Hotel. The water quality is regularly monitored by the research team from Pamukkale University which runs the project. Since the project team stays on the project site during the entire breeding season, any negative factor seen by them immediately reported to the local authorities and the necessary action were performed. The protection of nests and the wetland region as a whole is performed by presence and daily visits of the research team. The negative factors effecting the population is determined by research team and the necessary actions immediately taken by local authorities under the coordination of our Ministry. The seminars for hotels and village people are regularly performed.

As explained for the sea turtles, the seminars for students, tourism people, fishermen and local authorities are regularly done and especially fishermen were noticed for entrapped by mid-water trawls in the eastern Mediterranean.

Most of the beaches (Ekincik, Dalyan, Dalaman, Fethiye, Patara, Belek and Göksu Delta) are designated as Specially Protected Area. The nesting grounds and habitats of Nile turtles are very closely connected to the Sea turtle nesting grounds. Therefore, most of the conservation studies both

aimed at sea turtles and Nile turtles together. The habitats of Nile turtles are protected under the RAMSAR agreement too. The Scientific Committee for sea turtles are also dealing with the Nile turtles since their habitats and nesting grounds almost same area in most cases.

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14. UNITED KINGDOM / ROYAUME-UNI

Bern Convention – Amphibian and Reptiles Group of Experts Meeting UK Report

Bern Species

Two reptiles: *Lacerta agilis* and *Coronella austriaca*, and two amphibians: *Bufo calamita* and *Triturus cristatus* listed on Appedix II of the Bern Convention occur in the UK. These species are fully protected under UK legislation: it is an offence to harm the species in any way; including by damaging their habitat. The other eight species* of reptile and amphibian found in the UK are all listed on Appendix III of the Convention and are given appropriate protection in domestic legislation.

**Lacerta vivipara*, *Anguis fragilis*, *Natrix natrix*, *Vipera berus*, *Rana temporaria*, *Bufo bufo*, *Triturus vulgaris*, *Triturus helveticus*.

UK legislation also makes it an offence to release or allow to escape into the wild any non-resident species or non-resident species already established in the wild. Several amphibians and reptiles have established in the UK, including six species listed on the Appendix II of the Convention: *Emys orbiculari*, *Podarcis muralis*, *Elaphe longissima*, *Triturus alpestris*, *T. carnifex*, *Bombina variegata*, *Alytes obstetricans*, *Rana esculenta*, *R. ridibunda*, *Hyla arborea*

Two alien invasive species: *Rana catesbeiana* and *Xenopus laevis* have been subject to control measures in England. *R. catesbeiana* is proving difficult to eradicate from the one pool complex it has been found in.

Translocation Policy Reviews

Three policy documents reviewing different aspects of biological translocations were published in 2003.

A *Review of Non-native Species Policy* prepared by the Department of the Environment, Food and Rural Affairs (DEFRA).

www.defra.gov.uk/wildlife-countryside/resprog/findings/non-native/execsummary.pdf

A *Policy for Conservation Translocations of Species in Britain* and A *Habitats Translocation Policy for Britain* prepared by the Joint Nature Conservation Committee.

www.jncc.gov.uk/species/translocations/species.htm & www.jncc.gov.uk/species/translocations/habitat.htm

UK Biodiversity Action Plan

www.ukbap.org.uk

Biodiversity: the UK Action Plan published in 1994 established the fundamental principles for future biodiversity conservation in the UK. These are:

- Partnership - action involving the mutual co-operation of statutory, voluntary, academic and business sectors at both national and local levels.
- Targets - the establishment of measurable outcomes that address the needs of species and habitat types of most concern to biodiversity conservation.
- Policy Integration - recognise that shifts in policy are needed to reverse the decline in the UK biodiversity resource and to support sustainable development in all sectors of society.
- Information - while sound science and knowledge should underpin decisions, recognise that new approaches are required to fill information gaps and understanding and to manage the information already available more efficiently.
- Public Awareness- public understanding and action is needed to support the changes needed to maintain biodiversity.

A key element of the work under this programme has been the implementation of species and habitat action plans.

Species Action Plans have been prepared for 1 reptile and 3 amphibians:

<i>Lacerta agilis</i>	www.ukbap.org.uk/asp/UKPlans.asp?UKListID=397
<i>Bufo calamita</i>	www.ukbap.org.uk/asp/UKPlans.asp?UKListID=173
<i>Rana lessonae</i>	www.ukbap.org.uk/asp/UKPlans.asp?UKListID=545
<i>Triturus cristatus</i>	www.ukbap.org.uk/asp/UKPlans.asp?UKListID=619

A review of progress against targets was undertaken in 2002 (www.ukbap.org.uk/2002OnlineReport/2002Report.htm).

National Biodiversity Network (NBN)

www.nbn.org.uk

The National Biodiversity Network (NBN) continues to develop its key areas of activity, standard setting, linking and using data and information.

Four elements of the NBN are outlined here:

NBN Gateway

www.searchnbn.net

The NBN Gateway is a web site that shows how multiple sources of biodiversity information can be accessed and used over the Internet. The site now contains over 10 million species records, as well as various sources of habitat records and the boundaries of the protected sites in the UK. Currently, the main areas of functionality are:

- ten kilometre dot mapping;
- interactive mapping;
- show species recorded within protected sites;
- search across selected biodiversity web sites for relevant information.

Work is underway to add reptile and amphibian data to the gateway.

Recorder 2002: a biological recording software package

www.nbn.org.uk/information/info.asp?Level1ID=1&Level2ID=1

Recorder 2002 is designed to be a flexible tool. It offers a complete system from data capture through to reports, along with excellent mapping facilities. It is also designed to work in partnership with a variety of other packages from spreadsheets for data entry, to GIS packages for spatial analysis. It is compatible with a number of the data capture tools used by the recording community and can therefore collate records coming from many different sources

Species Status Assessment Programme

www.jncc.gov.uk/species/Species_Status_Assessment/Default.htm

This is an umbrella programme designed to house all taxon conservation status assessment work – it provides a mechanism to appraise, approve and publish conservation status. The programme works through a number of taxon specific expert groups, membership of which is drawn from across the conservation community. The programme:

- assigns Red List status to species based on the 2001 IUCN criteria
- determines species of conservation concern within the UK
- keeps track of international conservation status
- assigns native/non native status

Selection of literature produced by the UK conservation agencies 1998 - 2003

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Appendix 4

-- Reports on issues of special concern --

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1. *Vipera ursinii rakosiensis* in Hungary
2. Nile Soft-shelled Turtle *Trionyx triunguis*
3. Hopa region (Turkey)
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5. *Elaphe longissima* in Germany / *Elaphe longissima* en Allemagne
6. *Testudo hermanni* in France / *Testudo hermanni* en France

1. VIPERA KASNAKOVI (*Vipera ursinii rakosiensis*) IN HUNGARY

VIPERA URSINII RAKOSIENSIS IN HUNGARY: IMPLEMENTATION of RECOMMENDATION No. 23 (1991)

Recommendation No. 23 (1991) of the Standing Committee on the Protection of the Habitat of *Vipera ursinii rakosiensis* (V.u.r.) in Hungary recognised that the relictual meadows in Hungary represent the most important genetic reserve of V.u.r. which has become extinct elsewhere, and recommended the following measures:

“1. Assure....by purchasing land, the protection of the isolated small meadow habitats ... between the rivers Danube and Tisza, especially in the region between Dabas and Fulophaza...;

2. Improve the possibilities of survival of the very significant V.u.r population in the Hansag gene reserve by extending this reserve to the surrounding habitats which were once important places for the species;

3. Enforce the prohibition of the burning of arable grounds... as this practice affects negatively not only this most endangered species but also”...

The situation has greatly changed since 1991 taking the Recommendation No. 23, including the complementation and implementation of related Hungarian legislation.

1. From the time of the generous support of the European Herpetological Society to purchase one of the most important meadow in the Dabas-Fulophaza region in 1996 the area suitable for V.u.r. has been significantly enlarged by protecting and purchasing further meadows and agricultural land in the region by the Government. In the southern part of the region, in the vicinity of Kunpeszer some of 6.000 hectares are in public ownership at present, with 3.382 hectares meadows and pastures. These areas are parts of and are managed by the Kiskunsag National Park (Kecskemet). Areas disused as arable land are being restored to grassland, surprisingly quickly in 3-4 years. The National Park (NP) succeeded to use cattles for grazing the area and not to use machines with rotating cutter (Kemper-mower) for cutting grass. Grazing and mowing is permitted according to „custom/built” plan and even in still existing agricultural land such as lucerne/fields it is not allowed before July.

An expert is employed by the NP for checking/monitoring meadow viper in the region since the year 2001. Observations of V.u.r. in restored grasslands and also in adjacent agricultural fields (perennials) indicate a promising enlargement of the habitat of V.u.r. in the region.

The northern part of the region (Dabas) the habitat of V.u.r. is also in public ownership but used as a military ground. However, its legal status has been changed. According to the Act No. 53. of 1996 on Nature Conservation 2.597 hectares are *ex lege* protected as a marsh-land.

The BirdLife Hungary (MME - Hungarian Ornithological Society) is caring about the conservation management of the area supported by the Government.

2. The small Hansag gene reserve was jeopardized by increased threat of illegal catching of V.u.r. due to building of a road in the vicinity, and the destruction of the area by wild boars and by growing into a bush and wood.

Another significant threat is the invasion of alien plant species **Solidago canadensis*, *S. gigantea*) in neighbouring land. (In the unchanged natural association of the gene reserve itself these invasive alien species is not expanding).

The gene reserve is now an enclosure fenced off wild boars and closed to visitors. Since 1991 some of 1.300 hectare grassland became state-owned in the region which is a part of the *Ferto-Hansag National Park* (Sarrod).

Monitoring of the occurrence of V.u.r. in the region has also been started in 2001. Control of the invasive vegetation at certain parts of areas adjacent to the gene reserve has recently started in order to establish ecological corridors to other habitats near by the gene reserve.

3. Burning of arable grounds and other land areas are basically prohibited in Hungary.

Eu Red List of Vertebrates - Comments from Hungary to

Question: European status will not be evaluated (where possible) according to A-E of Annex 1 ?
Some cases evaluated e.g. *Mustela eversmannii*, *Herpestes* ..

MAIN FIGURES

p. XIII. Table 7a: errors in lines for Hungary. Correctly: Mammals - no endangered and 15 vulnerable; Reptiles – 1 endangered and 1 vulnerable (Total: 2). *Vipera ursinii* endangered (but see also comments below); *Lacerta vivipara pannonica* vulnerable/.

REPTILES

Vipera ursinii

Why as a complex? In some cases subspecies are included (e.g. related also to Hungary: *Lacerta vivipara pannonica*).

Why not also *V.ursinii rakosiensis* and in this case CR according to B and B2a/b, C2a, E

2. NILE SOFT-SHELLED TURTLE, *TRIONYX TRIUNGUIS*

Report presented by MEDASSET

The Nile Soft-shelled Turtle, *Trionyx triunguis*, is a large (>1.2 m long), but little known turtle species. Although it had already been described in the Mediterranean last century, it took almost another century until it was re-discovered there in the 1970's.

World Distribution: Three distribution areas that are more or less isolated from each other: West Africa, Central/Eastern Africa, and the Mediterranean. Whereas the African sub-populations are living inland, the Mediterranean sub-population is confined to the lower courses of rivers and are thus mainly brackish water animals which apparently spend a significant part of their life cycle in the sea. The Mediterranean population thus apparently represents a different ecotype that is geographically isolated from the African populations, notably none are now known in the Lower Nile, its Delta or on the Egyptian Mediterranean coast.

Conservation status: The Nile Soft-shelled Turtle's Mediterranean population has been listed by IUCN-The World Conservation Union in the "Red List of Threatened Species" as "critically endangered" (a taxon is "Critically Endangered" when it is facing an extremely high risk of extinction in the wild in the immediate future; the Mediterranean population is classified as "severely fragmented, i.e. no sub-population estimated to contain more than 50 mature individuals"). The species is listed in Appendix II of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), and is subject to conservation recommendation 26(1991). *T. triunguis* has also been included in Appendix III of CITES, the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, which means that the species needs special observation.

Required actions: To ensure the survival of the species, immediate actions are required. These should include: Drafting an action plan for conservation and management; Conservation of the most important nesting sites; Establishment of undisturbed areas for mating and egg-laying; Protection against persecution by fishermen; Establishment of measures against drowning in trawl nets.

Distribution and population

Egypt: Believed to be extinct in the lower Nile and the Egyptian Mediterranean. A MEDASSET survey in recent years brought no positive results.

Israel/Palestine: A good population existed until the early 1990's at Nahal Alexander, but it declined due to drastic habitat changes after heavy storms and the subsequent intrusion of salt water from the sea. Now, the population is much scattered, with mostly single individuals appearing here and there along the coast, without having a safe area for reproduction.

Lebanon: Only one recent record. The survival of a small population cannot be ruled out.

Syria: No recent records.

Greece: One record only, certainly not reproducing in the country.

Turkey: The only country in the Mediterranean that holds a significant population. MEDASSET's research activities showed that there are now only two main areas: the Çukurova delta (Seyhan River mouth) in the south and the Dalaman delta in the southwest. In addition, reproduction occurs at eight more sites (Dalyan, Aksu/Acisu, Anamur, Göksu, Berdan River, Tuzla Drainage Channel, Karatas Drainage Channel, Ceyhan River), and recent records may indicate small populations exist from at least five more sites (Patara, Fethiye, Köprü Çayı/Acisu,

Bozyazi, Orontes (Asi) River). All populations are under serious threat.

Population:

Due to their secretive way of life and the lack of in-depth studies, the Mediterranean population size cannot be estimated precisely. It is thought that the entire Mediterranean population comprises less than 1000 adult individuals.

Threats

A. Habitat destruction

The marine environment is in particular threatened by tourist development, and this also affects the Nile Soft-shelled Turtle which nests either on the seashore close to river mouths, or on sandy and muddy shores in the lower river courses.

B. Fisheries interactions

T. triunguis is regularly caught as by-catch in fisheries, often together with marine turtles. Most of the soft-shells are caught by mid-water and bottom trawls off the shore of the Çukurova delta (Seyhan, Ceyhan and Berdan rivers). Each year, hundreds of soft-shells are caught, and many of them die in the nets. In addition, fishermen actively persecute Soft-shell turtles as they destroy fishing nets.

C. Human disturbance

Although *Trionyx* turtles may easily become used to humans, and they are even fed by tourists at Dalyan and Dalaman in Turkey, they are in need of undisturbed areas for mating and egg-laying. In the Dalyan delta, regular disturbance by boat-traffic apparently affects reproduction. Destruction of nesting habitats through tourist development at Dalaman (Turkey). Soft-shelled Turtle drowned in a fishing net (Çukurova delta, Turkey).

Contacts: MEDASSET – Mediterranean Association to Save the Sea Turtles, 1c Licavitou St., 10672 Athens, GREECE. E-mail: medasset@hol.gr. – Dr. Max Kasperek, Mönchhofstr. 16, 69120 Heidelberg, GERMANY. E-mail: Kasperek@t-online.de.

3. HOPA REGION (TURKEY)

REPORT ON CONSERVATION ON HERPETOFAUNA OF NORTH –EASTERN OF TURKEY

As known , Turkey became a party to the Protection of European Wildlife and habitats (Bern) Convention in 1984.

In This respect, amphibians and reptiles living in the North – Eastern Anatolia (Hopa Region) are protected at the international level by the Bern, CITES, Ramsar and Biodiversity Conventions and at the national level by Land Hunting Law coded 4915 and Water Products Law coded 1380.

The amphibians and reptiles currently available in North – eastern Anatolia (Hopa Region) are protected and Biodiversity Conventions as well as the protected at the national level by the arrangements and provisions of the Land Hunting Law coded 4915 and the decisions of Central Hunting Committie (CHC) which are published annually in the content of the mentioned law. In this respect, fauna species which have social, cultural and eventually economic importance for the region has been taken under protection in the with Bern Convention together with their habitats. In this framework ; according to the decisions of CHC the protected turtles, snakes and lizards have been listed. Regarding the species the species in this context.

Catching, collecting of eggs and ruin nests of all types of reptiles are inhibited.

Hunting in the reproduction sites such as willow places, marshy places or ready places in reproduction period of March, April, May and July ; as well as ruining or giving harm to the sites prohibited.

Kaçkar Mountains National Parks, Hatila Valley National Park and Karagöl – Sahara National Park in the North – Eastern Anatolia are protected by the National Parks Law coded 2873.

In this context of the mentioned law; protection of ecological and biological aspects of the national parks and inherit of them to the following generations are essential. In this respect , the mentioned areas have legal status since 1994.

Up till now, because of its rich herpetofauna; the region was depicted to have priority for its habitats and wildlife and several projects for the region have been carried out.

In this framework; regarding the results of the project titled “ Developed of the Action Plans by Researching the Biological and Ecological Aspects of *Vipera wagneri* and *Vipera barani*” the living environments of these species are not under significant threat.

In the Hunter Education Courses special to Hopa Viper; an information meeting regarding the protection of all of the amphibians and reptiles in the Hopa Region was held.

Also, Artvin – Camili – Efeler – Gorgit Region, which is settled within the North- Eastern Anatolia and important for the herpetofauna population, has been selected as the pilot region in the context of the GEF _ II protection of Biodiversity and Natural Resources Project”. One of the activities planned in the context of the project is carrying out a survey regarding the fauna and flora of the region. This survey will form the basis for the management which includes the ecological evaluations for the region.

Additionally, activities directed for increasing public awareness will also take place within the mentioned project. At the same time; the mentioned areas are declared as Nature Protection Area in the framework of National Parks Law.

In our country, while the implementation regarding forestation and erosion control activities are carried out, the ecological and biological values of the region is fastidiously taken into consideration and with the implementations of Pasture Law coded 4342 which came into force in 1998 overgrazing which ruins the pastures is prevented and proper grazing in pastures is enabled.

Control of Water Pollution Regulation was published 1988 and Prevention of Air Quality Regulation was published 1986 and Control of Soil Pollution Regulation was published in 2001 and all of them are in force.

4. THE MILOS VIPER (*MACROVIPERA SCHWEIZERI*) IN GREECE

The fire on Milos in 2002, and the situation for the Milos viper, *Macrovipera schweizeri* - on the spot appraisal 2003-07-21-27

By Göran Nilson

Introduction

During 21-27 of July 2003 I visited Milos in order to find out about the effects of the fire on habitats in general, vipers and on the Natura 2000 areas on the island.

On July 23, 2003 I visited the lord mayor, Giorgios Tsainis and his close assistant and EU representative, Averkis Gaitanis. The lord mayor is new in this position, while Mr. Gaitanis has been around for some time. He recognised me, and probably he was involved on the Bern Convention meeting we had on Milos two years ago (together with Eladio, 2000-09-08). He also has been in Brussels and Strasbourg with the Greek delegation a few times.

Their ambition is to protect Milos in a 'realistic' way. The lord mayor stressed that the local government wants to protect Milos for their children and coming generations. They really want to limit the mining activities and Natura 2000 may be an instrument for doing that. The gold mining activities that started a few years ago (situated partly within these new Natura 2000 areas, at mount Mikro Vouno) have been stopped. The construction of a new airport has also been stopped for time being. About protecting habitats the lord mayor say that a problem is that they need to find a way for landowners to be able to continue to use their lands as in old times. The lord mayor claims that landowners cannot accept to have land protect for a viper, and the local government must proceed in a more soft way to get people to accept a nature reserve. The lord mayor and Mr. Averkis Gaitanis stressed **that it is very complicated to protect land owned by private landowners; it is much more easy to protect land owned by the local government.** They have had very hard and difficult discussions with private landowners, and they say that the people on Milos (their voters) will not accept such a system.

The lord mayor informed me that in September there will be a discussion meeting about the situation and future of the nature areas on Milos, between people in Athens, on Milos and in Brussels. This seems therefore to be another meeting than our Bern Convention meeting in Malmö, somehow at but at the same time. They promised to keep me informed about the outcome from this meeting (but I am not sure about that).

The Natura 2000 areas on Milos consist of the two central mountains on Western Milos (Profitis Ilias and Mikro Vouno) as well as the WSW coastline on western Milos. **No map was available on Milos showing the exact borders of these areas**, and despite asking it was not possible for me to see any maps at the lord mayor's office building in Plaka. However, Averkis Gaitanis showed me on a map, and which I have drawn in Figure 1 (enclosed).

The fire

Fires are a very big threat to the Milos viper. The vipers prefer a habitat with a mixture of big bushes and open spots, which is a habitat attractive for both passerine birds and for small lizards - the two main prey items for the viper. The viper is absent in areas without big bushes or in areas totally covered with big bushes. Occasionally this big bush habitat is destroyed by fires, and due to poor soil cover the recovery of the original vegetation layers takes a very long time. There are old mines from earlier centuries that still have not been overgrown by the maccia vegetation. A fire that destroyed good viper habitats on NW Milos in the late 1980:s is still without the necessary structure of habitat, and after 15 years the vipers have not returned to this area. In areas nearby where the habitat has not been changed by fire, vipers are still relatively abundant.

In early August 2002 a new fire started. It seems to have started outside the Natural 2000 area in the Chalepa valley (our research area) and in the strong wind quickly dispersed up on the sides of the highest mountain on Milos (Profitis Ilias), which was totally covered by the fire (see photo). The fire continued for two days and attempts to stop the fire was first made from planes from Athens spreading water, but without effect. Then a number of fire brigades arrived with the ferries from the mainland

and other islands, and before long the fire was under control. Within the area of fire, the habitat was completely destroyed. Just a stony and a total sterile desert is left (see photos). The vegetation in some deeper ravines was less affected. No animal life was seen within the destroyed areas, but in unspoiled tussocks just a meter outside *Podarcis milensis* was running. In the area of Natura 2000 the habitat is unsuitable for the viper in 85% of the area, and intermediate quality in the remaining 15 %. There are no core areas within the protected areas. However, just to the east of Profitis Ilias, and outside the Natura 2000 area, a section of core areas in the Chalepa valley were destroyed. The fire covered roughly a square kilometre, and a little more than half of this area was outside the actual Natura 2000 and a little less than half within the same. Between half and one square kilometre of core and intermediate viper habitats were destroyed, and with the same population density as estimated before (ref. Nilsson et al., 2000) between 50 and 100 adult vipers must have been directly affected. Vipers may have survived underground, or been able to move away from the fire or got killed. The fire seems to have moved from low to high elevation, which makes escapes less possible. Underground survival is a more realistic way. A major section of one of our study sites was destroyed, and our best viper hibernacula were situated within this burnt area! A live one-year-old viper was found just outside the burnt area in the Chalepa valley during a night excursion. This specimen must have hatched at about the same time as the fire went on a year earlier.

The tourist office in Adamas says that many vipers have been spotted during the season, and four people have been bitten this season up to the present date (2003-07-25). It seems to me that the viper has not suffered extremely much because of the fire. However, some core areas have been destroyed, and it will take long time before these areas are suitable again.

My reflections

According to the lord mayor the fire was made by landowners in protest against the protection of land for a viper. However, my old friend, and house- and hotel owner in Adamas, Nikolaus Mathioudakis, told me that the fire actually was started by an old man who was going to burn a madras, and then he lost control in the strong wind and the fire quickly dispersed. Perhaps the truth is somewhere in between, but the lord mayor uses this argument for not being forced to protect private owned land (my reflection). Nikolaus Mathioudakis informed me that all land within the Natura 2000 protected areas was governmental land. No private land was used.

It is possible that the local government is using the fire for political purpose by claiming that it is not possible to protect new (viper) habitats as any such area will be burnt by people. By not declaring private owned land as reserve, local conflicts between people and politicians can be avoided. Put simply, Athens cannot protect the viper by declaring additional viper reserves, as any additional land that will be used for this will be burnt. I was told so.

Our recommendations for Nature reserves are all **outside** the mountains Profitis Ilias and Mikro Vouno. The lord mayor claims that these areas were protected because of the viper (although it is missing in 85% and rare in the remaining 15%). The choice of areas is not based on any scientific analysis or investigation. It was not possible to find out who did this evaluation (an interesting mystery). The only available scientific report from this period is the one we made, and the single evaluation and map of areas done is the one we did, and which the Greek representatives already got from Keith and Claes in Strasbourg some years ago. Now, once again I gave them our map of suitable viper areas on Milos, together with our scientific report of the Milos viper (from Amphibia-Reptilia).

My interpretation is that the selection of areas was done due to ownership (as stated above, governmental owned land is much less problematic to use than private owned land, I was told so by the lord mayor). At the same time it is claimed that the Natura 2000 was established for the viper (thereby defending against demands from the Bern Convention and Brussels). **A totally unsuitable area for the viper has been protected**, and the lord mayor is claiming that it is for the viper, and using the fire (arson or not) as an instrument for not being forced to protect new and the real (mostly private owned) habitats.

Summary

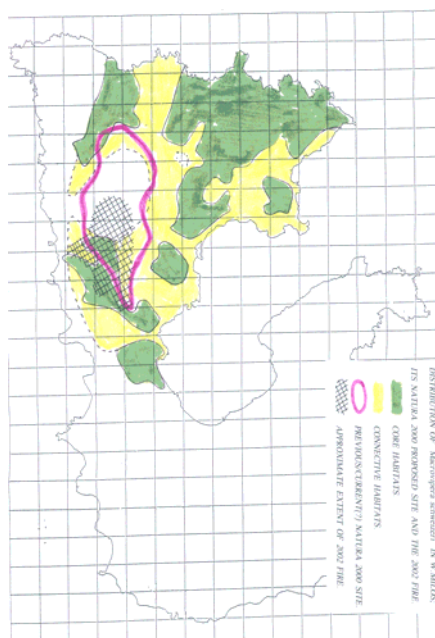
There is hard resistance from local people and landowners against nature protection as it should prohibit traditional use of the land (house building, farming etc.). At the same time there are hard pressure from EU and Bern for protecting habitats for the viper. The lord mayor had been informed that the Natura 2000 areas on Milos have been determined for the viper. However, due to our studies these areas do not contain any optimal viper habitats. It is possible that the National government hope that by protecting these areas, owned by the local government, and claiming that it is for the viper Bern and EU will be satisfied and at the same time conflicts with local landowners on Milos will be reduced. However, as a consequence for the viper the actual European core habitats are not protected. And as it seems the real consequence has been that people (landowners?) got provoked and set the mountain Profitia Ilias on fire for getting rid of the viper, and demonstrate no tolerance against any nature protection system that would stop them for using their land. The habitats on the mountain were destroyed, but the viper population suffered less as could have been expected as to a certain extent 'wrong' habitats were destroyed. According to the lord mayor on Milos, it is not possible to protect other areas for the viper, as such areas would also be set on fire.

Reference

Nilson, G., Andr n, C., Ioannides, Y. & M. Dimaki 1999: Ecology and conservation of the Milos viper, *Macrovipera schweizeri* (Werner, 1935). Amphibia-Reptilia, 20(4): 355-375.

Figures

1. Map showing Western Milos, with important viper areas, extension of the fire in 2002 and the Natura 2000 areas.
2. Profitis Ilias at distance. Photo taken from Adamas and across the bay. The lighter areas on the mountain are the extension of the fire in 2002.
3. Profitis Ilias nearby. Photo taken on the way down into the Chalepa valley (one of our field areas). Unspoiled habitats in the foreground.
4. Unspoiled habitats in the Chalepa valley
5. Spoiled habitats in the Chalepa valley, after the fire
6. The border between the fire and normal habitats
7. Many 'feeding' trees and areas were destroyed in the fire
8. Habitat on left side of the road destroyed, on right side unspoiled.



5. THE AESCULAPIAN SNAKE (*ELAPHE LONGISSIMA*) IN GERMANY

IUCN Societas Europaea Herpetologica SSC. - EH.

The Aesculapian Snake (*Elaphe longissima*) in Germany.

This internationally protected species reaches its northern world range limits in Hessen wherein a series of fragmented locations still support populations/ individuals. Key sites run from Wiesbaden in the south-east; through Frauenstein, Eltville, Rauenthal, Schlangenbad and Bad Schwalbach to the north; and westwards to Kiedrich, Oestrich-Winkel, Rudesheim, and finally the Presberg.

The species is famously associated with thermal spas (and hence to medicine) but the real ecological link can now only be guessed at since few hydrothermal issues remain uncapped/unexploited. Its present habitats embrace a landscape from the lower river meadows, up through vineyards and stream valleys, and into the higher woodlands (predominantly of Beech) of the Taunus hills. Its lower range is fragmented by a band of urbanisation culminating in Eltville and the city of Wiesbaden, although individual snakes are still found in some parks and gardens.

Adult snakes are considered to be relatively wide ranging with some if not all habitats thought to be visited during seasonal migrations. Apart from their apparent need of man-made substrates for egg laying eg. compost and dung heaps, the use of other habitats is poorly understood. While the Wiesbaden population is seen as stable by the local NGO ('NaturSchiitzHaus'), the status of most other areas is either unknown or declining as at the important historical locality of Schlangenbad - which was named after this snake !

Few if any of these localities/habitats are protected and none specifically for the snake. This fact, together with the lack of knowledge on exact ecological requirements a) has lead to otherwise preventable 'stochastic' events wiping out or seriously depleting local populations; b) is preventing the necessary conservation of core habitats; c) prevents recognition and provision of wildlife corridors needed to combat the continuing adverse effects of fragmentation.

A number of urgent actions need to be taken, catalysed and ideally funded by the Federal government to reflect relevant international species obligations to conserve *Elaphe longissima* habitats within both the Bern Convention and the Habitat and Species Directive. These should function within the framework of a regional strategy, clearly needed but currently lacking: -

1. Ecological research to determine exact habitat requirements and local migration patterns.
2. Survey to determine and update their local status.
3. An extension to the whole of the Rheingau of the public awareness, education, and media campaign initiated around Wiesbaden.
4. Appropriate nature protective designation for key habitats and localities.
5. Design and implementation of necessary wildlife corridors.
6. Strict safeguards for this species against adverse direct (and indirect) effects of the proposed development of rail and road improvements, new Rhine bridge crossing, and consequent dormitory/commuter urbanisation of the lower Rheingau. This snake's ecological requirements need to be integrated and prioritised within the current environmental impact assessments now underway.

Whilst it is important that co-operation with, and support for" those active local groups is continued and enhanced (NSH. & AGAR.) it is clearly impractical to rely solely on these non-government volunteers to carry the responsibility for such a national herpetofaunal conservation priority. It is essential therefore that government recognises their co-ordinating role.

6. *TESTUDO HERMANNI* IN THE PLAINE DES MAURES (FRANCE)

THE HERMANN'S TORTOISE IN VAR AND THE NATURA 2000 PROJECT (PR 126)

Paper presented by SEH

Report by S.O.P.T.O.M., Centre de Recherche & de Conservation des Chéloniens

The Hermann's tortoise, *Testudo hermanni hermanni*, is entered in the IUCN Red Data Book as an endangered subspecies (ENB1+2abcde), mostly because of a restricted area of distribution which is still currently decreasing and fragmenting. The Habitat Directive includes the Hermann's tortoise in its appendixes TI and TV, and the Bern Convention highlights the need to protect this subspecies.

In South of France, Soptom has implemented conservation programs since 1986 and we have been running a new population survey for 3 years, quantifying observation rates and demography (sex ratio, juveniles) for more than 120 sites (1 75ha each). This program will end in 2005. We are also developing agreements with private landowners, a label associated with a code of conduct in order to promote a sustainable conservation of Hermann's tortoises on private lands.

THREATS

Many factors are jeopardizing the survival of Hermann's tortoises in France:

1. **Forest fires:** the existence of large forests, strong wind and periods of drought have always favoured fires that can seriously affect all populations of tortoises, including those in Natura 2000 sites. Prevention must be reinforced to protect important spots in terms of biodiversity and because of the presence of *Testudo hermanni hermanni*. Corridors should be promoted to allow recolonisation when some populations of tortoises are affected by fires.

2. **Urbanisation:** this is a major problem as the population in Var is expected to increase by 44% within the next 20 years. Many houses are built, some on lands used by Hermann's tortoises, like for instance in Vidauban Peyroubier where the natural habitat of this chelonian has been shrinking at a fast rate.

3. **Pet trade:** illegal trade is still important, but it mostly concerns *Testudo graeca* of captive bred *Testudo hermanni*. With regards to natural population, accidental gathering is still very common, and should increase after the recent fires (because of people willing to protect the tortoises from future fires — see reports in Corsica).

4. **Agriculture & forestry:** the use of heavy machines to clear-cut bushes and for agricultural purposes, to replace seasonal workers, can have a major impact on tortoises when used during the activity period of this animal. Small patches of various cultivations surrounded by natural edges should be promoted, as well as fallows, to maintain or increase some of the preferred habitat of tortoises. In places where forest re-grows a lot, keeping some open habitats by means of cultivation can be favourable to *Testudo hermanni* by maintaining nesting sites (i.e. Les Mayons, Collobrières).

5. **Vineyards and Olive trees:** these are the two major agricultural components in Var. They can be useful to tortoises as nesting sites. This implies that natural edges are kept, chemicals and use of heavy machines are minimized (see studies in Greece on effect of herbicides) and replaced by small herds of sheep and/or goats. The increase in vineyard growing may trigger the destruction of tortoises' habitat, as for instance in Vidauban (St Julien-Peissonel).

6. **Farming:** sheep and goats can be useful for bush clearing (against fires) when they prevent the use of heavy machines, and because they maintain an open habitat, as long as the herds are not so large as to tramp the ground and destroy tortoises' food resources.

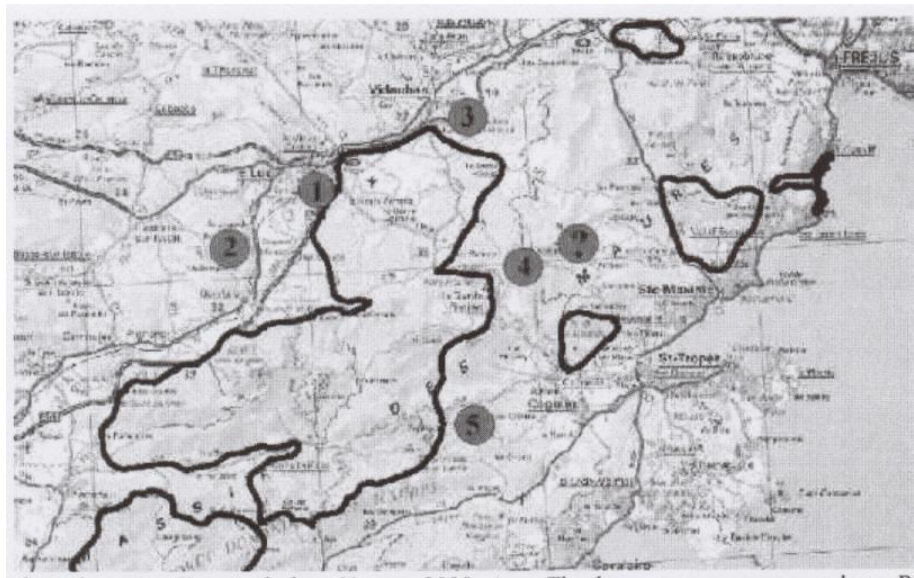
7. **Exotic species:** This did not seem to be a serious problem in the past, with less than ten *Testudo graeca* observed in the wild between 2001 and 2003. No data is available for *Testudo hermanni boettgeri* but intergrades have been reported previously in the wild (Guyot & Pritchard 2001). This year, with the serious drought, the birth of 17 *Testudo graeca*, incubated naturally in the ground, has been observed in an area where no birth was observed previously (although the female laid eggs

regularly). If global warming triggers regular periods of heat in south of France, *Testudo graeca* could become an invasive species and compete with *Testudo hermanni*.

The Natura 2000 site PR 126

In spite of the existence of lands protected by Conservatoire du Littoral or Conservatoire Etudes des Ecosystèmes de Provence, where some populations of tortoises are observed, our preliminary results show that the most important fragments of population (in terms of observation rates and demography) are sheltered on private properties (patches of natural environment within large game reserves and wine estates). In that respect, the Natura 2000 project could trigger a better protection of this endangered animal by promoting a sustainable use of land including the protection of the Hermann's tortoise. Unfortunately, most Natura 2000 sites that are currently delimited in Plaine and Massif des Maures do not include these big populations of tortoises.

The following map shows the Natura 2000 site for Plaine des Maures (PR 126) as provided by the Regional Direction of the French Ministry of Environment (Diren, April 2003). We have added the spots where important populations of Hermann's tortoises have been inventoried, close to this site. Other data is available on request for populations further away from PR126, or for populations inside of it.



Map of southeastern Var, including Natura 2000 sites. The largest one corresponds to PR 126 - Plaine des Maures. The closest location of Hermann's tortoises not included in Natura 2000 sites are indicated by pink spots. Numbers are related to the names of each site (see below). The spot with a question mark signals the well-known presence of tortoises yet not checked recently by our teams.

Spot 1: Cannet des Maures:

There is a large population spread all over Plaine des Maures, but a part of it has been isolated recently because of the highway. The site of Natura 2000 stops at the highway, while it has been shown that the source population is located north of the highway (Guyot, 1996). Complete isolation has been prevented thanks to culverts and tunnels. This northern area has been planned to be protected by an Arrêté de Biotope. This is a legal tool implemented by the regional government (Prefecture) in order to preserve biotopes which shelter protected species. Today the project exists but no significant advancement has been observed or is even planned. In the meantime, various projects are scheduled in the area, such as the development of eco-tourism on Meilland's property, the extension of the industrial zone, and that of the private rubbish dump of Balançon.

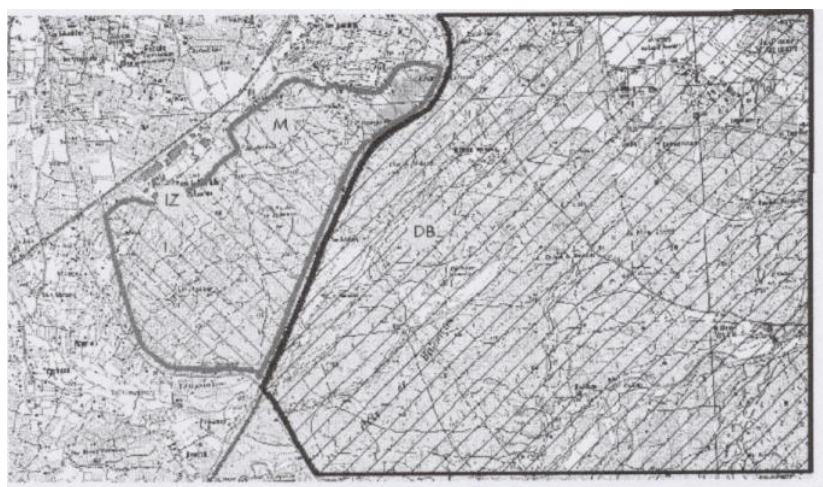
Meilland's property the very famous rose designers and growers have just hired consultants to study how their land (70ha) could be promoted. Preliminary information show that they are planning

to develop a training center, a bed & breakfast for tourists (in existing buildings), and use the land as a recreational park. The increase of the number of people on this important place for tortoises will favour accidental gathering and will trigger important perturbation of both tortoises and their natural habitat, in one of the few remaining spots in France where the tortoise population is still producing many youngs (source population).

Industrial Zone although peripheral to the site, this very important industrial zone is a threat in terms of risks of pollution and fires. Its extension is planned over fallows that may be used as nesting sites by tortoises. Studies are needed to confirm this hypothesis.

Dump of Balançon this private dump buys most refuse from the various cities and villages in all Var and thus grows at a very fast rate. Many associations, and the new mayor of Le Luc, are trying to limit its extension.

Yet, the managers of the dump own (or have a legal right to large piece of natural land that they plan to use to store more refuse, thus large area of the habitat of Hermann's tortoises.



Map showing partial area of Natura 2000-PR126 (in blue) as well as the limits of the project of Arrêté de Biotope (pink). Yellow spots are: IZ industrial zone, M: Meilland's project, DB: dump of Balançon.

Spot 2 Le Luc

Several populations exist in this area, one of which being on a calcareous substrate which is unusual for this subspecies in Var. Another one is located at the limit between the at the northern limit of Gonfaron. More details are available on request for this area.

Spot 3 :Vidauban:

Urbanisation is very important in this region, and populations of tortoises are restricted to remaining green areas. South of Vidauban, a very important population has been observed, on a public site managed by the forestry office (Foret domaniale). It has been greatly affected by the fires of July 2003 but there is a potential for natural restauration of the Hermann's population, if the site is not urbanized even more.

Spot 4: La Garde Freinet

Several populations of interest have been reported all over this area, with each time the presence of juveniles and subadults. Most of the habitat is not suitable for Hermann's tortoises because it is too sloppy and dry, and chelonians are observed in open areas or plateaux, often close to small rivers. An increase of private housing is observed all over the area.

Spot 5 La Mole

The population of Hermann's tortoises is spread almost all over this area, and is mostly sheltered on private lands. Tourist activities are important because of the sea nearby.

With Le Cannet-des-Maures, this is probably the area in Var where the distribution of Hermann's tortoises is the most largely spread.

As we mentioned before, these are preliminary results of a program that will end up in 2005. For some area we do not have data yet, but other organisations have run inventories and studies. We thus suggest that you also consult CEEP (Conservatoire Etudes Ecosystèmes de Provence, Aix-en-Provence), one of the major stakeholder of the project "Natura 2000 Plaine des Maures", if you need to get more data about the presence of Hermann's tortoises in this area, as well as general data about biodiversity.

Barbara Livoreil

Scientific Officer

Appendix 5



Convention on the Conservation of European Wildlife and Natural Habitats

Standing Committee

Draft Recommendation No. -- (2003) of the Standing Committee, examined on 4 December 2003, on the conservation of the Spur-thighed tortoise *Testudo graeca graeca* in Spain

The Standing Committee of the Convention on the Conservation of European Wildlife and Natural Habitats, acting under the terms of Article 14 of the Convention,

Having regard to the aims of the convention to conserve wild flora and fauna and their natural habitats;

Having regard to Resolution (78) 22 of the Committee of Ministers of the Council of Europe on threatened amphibians and reptiles in Europe ;

Recalling its recommendation No. 59 (1997) on the Drafting and Implementation of Action Plans of Wild Fauna Species;

Recalling its 1993 Guidelines for Recovery Plans for species of amphibians and reptiles;

Recalling that Article 3 of the convention provides that each Contracting Party shall take the necessary steps to promote national policies for the conservation of wild flora, wild fauna and natural habitats, with particular attention to endangered and vulnerable species, especially endemic ones, and endangered habitats;

Recalling that Article 4, paragraph 1, of the convention provides that each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of the wild flora and fauna species, especially those specified in the Appendices I and II, and the conservation of endangered natural habitats;

Recommends that the Government of Spain:

Draw and implement a Species Recovery Programme for *Testudo graeca graeca* which includes measure to control further development of urbanisation, tourism and agriculture according to the conservation needs and which takes into account the need to :

- a) avoid any further fragmentation, isolation or loss of core habitat by destruction, grading and exploitation of undeveloped territory by urbanisation, tourist development, road-building and agriculture (e.g. vegetables and fruit trees); this has been valid especially for the plan of a new highway from Aguilas to Cartagena, which will effect and cut one of the populations with the highest density (Morra del Pan); other alternatives should be considered.
- b) avoid grading and ploughing in the core habitats and breeding grounds to stop killing or injuring of tortoises or the destruction of their egg clutches;
- c) control the use of pesticides in and around all core habitats (buffer zones);
- d) forbid the burning of scrubland, open maquis and garigue in tortoise habitats and take appropriate steps to avoid such fires (education, prevention, immediately put out the fire);
- e) stop any release of tortoises of foreign origin, e.g. also from other populations or pet animals in indigenous populations;

Appendix 6



Convention on the Conservation of European Wildlife and Natural Habitats

Standing Committee

Draft Recommendation No. -- (2003) of the Standing Committee, examined on 4 December 2003, on the conservation of the Nile soft-shelled turtle *Trionyx triunguis* in Turkey

The Standing Committee of the Convention on the Conservation of European Wildlife and Natural Habitats, acting under the terms of Article 14 of the Convention,

Having regard to the aims of the convention to conserve wild flora and fauna and their natural habitats;

Having regard to Resolution (78) 22 of the Committee of Ministers of the Council of Europe on threatened amphibians and reptiles in Europe ;

Recalling its Recommendation n° 26 (1991) on the conservation of some threatened reptiles in Europe that recommended Turkey to protect *Trionyx triunguis* populations;

Recalling its recommendation No. 59 (1997) on the Drafting and Implementation of Action Plans of Wild Fauna Species;

Recalling its 1993 Guidelines for Recovery Plans for species of amphibians and reptiles;

Recalling that Article 3 of the convention provides that each Contracting Party shall take the necessary steps to promote national policies for the conservation of wild flora, wild fauna and natural habitats, with particular attention to endangered and vulnerable species, especially endemic ones, and endangered habitats;

Recalling that Article 4, paragraph 1, of the convention provides that each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of the wild flora and fauna species, especially those specified in the Appendices I and II, and the conservation of endangered natural habitats;

Taking into account that the Mediterranean population of *Trionyx* has been listed by IUCN in the "Red List of Threatened Species" as *critically endangered*, i.e. as species, which faces an extremely high risk of extinction in the wild; ;

Recalling that detailed information on distribution, population and conservation needs have been presented to the Standing Committee of Bern Convention at various occasions, including in documents T-PVS (98) 59 and T-PVS (99) 73

Noting that Turkey holds by far the largest population in the Mediterranean, apparently holding approximately 90% of the entire Mediterranean population; ;

Noting with satisfaction that the Turkey has taken positive steps towards the protection of the species;

Recommends that the Government of Turkey:

Give *Trionyx triunguis* nesting and feeding habitats both inland and at sea the necessary protection, for instance by

- setting aside certain areas for the species' protection in the Dalyan area, where the species can mate and lay eggs free from human disturbance.
- integrate nest protection measures in the Dalyan area into already existing nature protection programmes.
- rehabilitating nesting habitats at Kukurtlu Göl (Dalaman area) with the aim of establishing suitable nesting sites which have been lost in the past.
- considering giving the Dalaman area an overall protection, which ensures that the ecological functions of the coastal wetland are not negatively influenced by recreational activities, tourist development, human disturbance, etc.
- taking measures to prevent the unintentional capture of individuals by trawls off the coast of the Cukurova delta (Seyhan, Ceyhan, Berdan River deltas).
- taking measures against the direct kills by fishermen, when the animals destroy fishing nets or enter fish traps.
- assessing the population status of *Trionyx triunguis* at other potential sites along the Turkish Mediterranean and taking the necessary measures.

Appendix 7



Convention on the Conservation of European Wildlife and Natural Habitats

Standing Committee

Draft Recommendation No. -- (2003) of the Standing Committee, examined on 4 December 2003, on the conservation of the Aesculapian snake *Elaphe longissima*

The Standing Committee of the Convention on the Conservation of European Wildlife and Natural Habitats, acting under the terms of Article 14 of the Convention,

Having regard to the aims of the convention to conserve wild flora and fauna and their natural habitats;

Having regard to Resolution (78) 22 of the Committee of Ministers of the Council of Europe on threatened amphibians and reptiles in Europe ;

Recalling that Article 3 of the convention provides that each Contracting Party shall take the necessary steps to promote national policies for the conservation of wild flora, wild fauna and natural habitats, with particular attention to endangered and vulnerable species, especially endemic ones, and endangered habitats;

Recalling that Article 4, paragraph 1, of the convention provides that each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of the wild flora and fauna species, especially those specified in the Appendices I and II, and the conservation of endangered natural habitats;

Noting that isolated populations of *Elaphe longissima* (particularly those in. North Tyrol and West Salzburg for Austria, West Bohemia for the Czech Republic Rheingau for Germany, and Carpathians and South Bug for Ukraine) are very vulnerable to habitat fragmentation and require special habitat conservation measures

Recommends that the Governments of Austria, the Czech Republic, Germany and Ukraine:

Ensure that isolated populations of *Elaphe longissima* :

- a) have their key hibernation, feeding and breeding sites appropriately protected and managed;
- b) avoid any further fragmentation, and connectivity of populations or subpopulations is addressed and possibly reversed, for instance by the establishment of “wildlife corridors”;
- c) are regularly monitored to determine status and threats, so that decline factors may be addressed;