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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Standing Committee

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**Implementation of Recommendation No. 119 (2006)
on the conservation of certain endangered species of
amphibians and reptiles in Europe**

REPORT BY THE NGO

*Document prepared by
The European Herpetological Society, on behalf of Societas Europaea Herpetologica ('S.E.H')*

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THE 2006 ACTION PLANS FOR THE CONSERVATION OF 5 HERPETOFAUNAL TAXA

Crested Newt Complex (*Triturus cristatus*)

Italian Agile Frog (*Rana latastei*)

Sand Lizard (NW.Europe) (*Lacerta agilis*)

Aesculapian Snake (*Zamensis longissimus.*)

Meadow Viper (*Vipera ursinii*)

Information submitted to the Bern Convention Standing Committee 2012 on behalf of Societas Europaea Herpetologica ('S.E.H'), The European Herpetological Society.

SUMMARY OF OUR KEY OBSERVATIONS

From their inception SEH has strongly supported the production of these Action Plans through the Bern Convention for five of our threatened herpetofaunal taxa. These plans provide detailed advice on the species status and conservation needs. We were particularly enthusiastic about the positive nature of the plans and their potential for taking forward the specific measures needed for the conservation of the species, as well as for the opportunities that these offered for developing greater international co-operation across the range of species and the different countries involved.

Six years on, we have undertaken an analysis of how these plans have been implemented and used, the way they have influenced conservation actions, and the degree to which their identified *Urgent Priority Actions (UPAs)* have been taken forward.

- The Plans offered a valuable tool for advocating conservation priorities and encouraging cooperation and providing a source of reliable information.
- National Action Plans and conservation measures have been adopted but too frequently fail to reference or reflect the Bern Plans and so the value of promoting European level conservation is lost. The Plans should remain as a focus for best practice and cooperation and recognition of the identified European significance of the species and the issues in question.
- The Plans are not being appropriately translated within National Plans and their *UPAs* have not been taken forward; and their use for intergrating species conservation needs into national conservation requires active promotion.
- Reporting on the Plans (Rec.119) has been very poor and so assembling a clear picture on their implementation and how effective they are is difficult; this should be rectified.
- Survey, monitoring, and surveillance programmes are highly variable and mostly fail to meet the real needs for reporting and for providing the information required for effective conservation.
- The Action Plans have the potential to be a positive focus for developing greater collaboration and for advancing best practice.
- Action Plans remain an effective tool when appropriately supported.
- Further threatened taxa should be identified for inclusion and the Bern Expert Group for the Conservation of Amphibians and Reptiles should be revived
- as the most appropriate means for developing this work.

BACKGROUND

There have been many Bern Convention initiatives for herpetofaunal Conservation, some successful, some less so. Those most relevant to the five current Action Plans include Recommendations **22** (1978); **13** (1988); **26** (1991); **27** (1993); **59** (1997); **106** (2003) and **119** (2006).

SEH greatly welcomed and commended the initiative to produce European level Plans for five threatened taxa and designed to advise on conservation needs, e.g. protection, management, survey, amongst those measures needed to improve the conservation status of their populations and habitats, to engender international cooperation and to improve liaison.

We were also particularly aware of the positive nature of these Plans which contrasted with many of the preceding herpetofaunal Recommendations that from necessity tended to be more negative due to their need to address situations that threatened sites and populations.

These Plans were produced via a contract to SEH's Conservation Committee. Amendments were requested of our initial 2005 version and an improved version was presented at the 2006 Standing Committee where they were adopted via the means of **Recommendation 119**.

One of its three requirements is for Member States *to keep T-PVS informed of their implementation of these Action Plans, and of the results for the species concerned.*

A second requirement of this Recommendation is *to draw up and implement national action plans or other national measures, as appropriate, on these five species taking into account the European Action Plans.*

OVER-VIEW

Our main observation is that the Plans have, in general, been poorly implemented and reported upon, a situation whereby the good intentions behind them have been put at risk and there is failure to implement the conservation measures required. These Plans are comprehensive and therefore for the purposes of T-PVS discussion our analysis has focussed toward the most relevant UPAs. Many of these remain unfulfilled across many countries. Reporting back to the Convention has been very poor, at the time of writing, some 6 years on, only 5 Member States from a maximum involvement of 37 have reported. As the relevant NGO SEH finds this to be both disappointing and depressing and feels strongly that it should be unacceptable to the Convention who has a serious need to address this situation. We found it difficult to establish the facts surrounding implementation at national levels as far too many governmental departments, local authorities, and relevant conservation organisations across Europe were found to be unaware of the Plans and therefore unable to respond informatively.

Governments should be asked to fulfil their reporting requirements to help ensure the implementation of these Plans; to allow analysis of their effectiveness; and to determine where priority actions remain.

The provision to draw up **National Plans**, *as appropriate, taking into account the European Plans*, has too often been undermined by National 'versions' which are too often neither citing nor even reflecting those adopted at T-PVS. This to our minds is perverting their *as appropriate* intention.. The mechanisms for their production, often via NGOs, lacked an explicit brief for their circulation to local authorities, site owners, site managers, or even to other conservation organisations. Most importantly they have consistently lacked the necessary government sanction and ownership to encourage their implementation Their lack of promotion by government and its agencies of these Plans undermines the potential to improve species conservation and to highlight the shared international significance that was intended.

Another underlying problem is the increasing focus within conservation strategies of a simplistic approach of focussing on the management of the habitat type; or ecosystem; botanical assemblage; or landscape, which not only fails to adequately address, but can frequently have adverse effects on the faunal components, and especially on the vulnerable herpetofauna.

Certain measures often promoted within funded 'agri environmental' schemes, such as large scale or locally insensitive grazing, burning, cutting, mowing, mechanised scrub clearance, and turfing, can all cause serious threats for ground living fauna, despite their conservation ambitions Acceptable

‘ecological management’ is usually complex, requiring sensitivity and compromise, with facets too seldom factored into funded ‘habitat’ schemes.

In the UK., there is an awareness of an increasing recognition of the need to intergrate faunal species conservation needs and to avoid management measures that are more inappropriate. We can only hope that such common sense is accepted and if so we see this as a future opportunity for increased involvement and influence of the Bern Plans. Formal support from T-PVS for this approach would help toward mechanisms to promote this. The current species assessment required under the Habitat Directive’s Article 17 could also be very helpful provided that proper herpetofaunal survey techniques are used.

Governments should be asked to use the Plans to ensure effective integration of species conservation needs into national conservation activities and see the *Urgent Priority Actions* progressed.

Species survey, surveillance and monitoring programmes need to be sufficient to provide the information needed for understanding conservation status and for directing conservation actions. Several different approaches may be required to achieve these aims. Ground truthing should always be used to confirm and update records; predictive mapping can help to prioritise field survey effort, and guide appropriate levels of consideration towards prior consultation needs for relevant land use changes proposals.

The methods and needs for **survey** and **monitoring** must be appropriate for the species concerned and reflect the questions being addressed. This rather self evident statement is meant to question the approaches being used in some cases and the risks of flawed interpretation that may be placed on them. The use of fixed transects to monitor any national level status changes of protected species must ensure representivity and avoid bias. The temptation of concentrating on the best populations must be tempered by due attention also to the lesser populations which may be more vulnerable and thus prone to neglect and loss.

Reliance on transect monitoring should be avoided as this also needs to be supported by further basic surveys to fully understand a species status across its national range. Annual weather fluctuations risk confusing underlying trends, the moreso for amphibians.

Field survey/monitoring on known rare species sites can also prove invaluable in deducing detailed habitat associations and niche needs, even when lacking any glimpse of the rare animal itself.

Monitoring **is** required to assess the degree to which conservation measures achieve their desired conservation goals including the results of reintroductions, habitat management, pond creation, etc.; and the efficacy of national and international reserve designations, as well as the success of species mitigation measures.

The Bern Plans provide a good platform for developing effective monitoring programmes and ensuring best practice in collaboration across Europe. But the absence of any co-ordinated support for this work has allowed divergent approaches to spring up without the benefit of any consensus and with the experience of other European partners.

Governments should be encouraged to develop comprehensive monitoring programmes and approaches for species surveillance and monitoring. This work should be initially focussed around these current Action Plans under the auspices of the Bern Convention and ideally should be guided by its Expert Working Group on Conserving Herpetofauna.

Returning to the matter of Rec.119 reporting, we must seek clarification of the EU’s reporting in T-PVS/Files(2011)28. that where this refers to listings of “sites designated for the protection of species” it does actually mean what it states ? Certainly we must accept that this should be the case for those 8 taxa which are covered by Annexe II under the Habitat & Species Directive. However when it comes to the 132 sites designated for *Zamensis longissimus* and the 1497 for *Lacerta agilis* which are both only Annexe IV, we need to be sure that the designation of these sites was so intended and results in the appropriate conservation management for these species. However, if these occur on sites whose main designation purpose is directed towards other flora and fauna then these other features are always likely to take precedence regarding conservation efforts and this may in fact not always benefit the

herpetofuana. Therefore, while there could be some benefit from the protection afforded to these sites more generally, unless they include the specific management measures and conservation status assessments that benefit these species, and avoid adverse management measures that disadvantage them, this would hardly comply with their Action Plan requirement(s).

It can be seen from our following text that inappropriate site management is too often a significant issue working against the species conservation needs, and typically so for the Sand Lizard in its North Western European heathland. For problem species at the edge of their range and with a fragmented distribution, eg. Aesculapian Snake, it seems inconceivable that its mobility and mosaic of habitats used (including beech forest, stream sides, rocky outcrops, orchards, etc.) could be covered coincidentally by designations for other, albeit perfectly justified conservation purposes.

One other situation must be recognised as impeding the national adoption and Implementation of these Bern Plans – namely where there is local or regional **devolution** of natural environmental responsibility, and of course is worsened where there has been a lack of Plan dissemination. This further challenges the promotion of their international significance, and the ability for the signatory state to influence their local authorities, allows parochial views undue prominence, and greatly lessens the allocation of appropriate funding.

Overall we are faced with the conclusion that these Plans have not achieved their intended potential to date. Their value and significance could be shown much more widely given stronger direction and ‘ownership’ by governments. They offer a sound means of communicating Priority Conservation needs and facilitating the integration of their key actions eg. UPAs., into national Plans if and where appropriate. They also offer a key mechanism and opportunity to advance more effective communication and international co-operation across Europe. The development of sound survey and monitoring methodologies and projects, and the identification of those taxa most likely to benefit from such an Action Planning approach should form a key focus for the Bern Convention’s Expert Group on the Conservation of Amphibians and Reptiles.

SPECIES ACCOUNTS

6 years on, the lack of so many national reports on these Plans’ implementation has hampered our intended analysis and consequent proposals. Equally if not moreso, the overall lack of knowledge of these Action Plans by our many international contacts appears to have confused and delayed their anticipated responses.

When there was no other source we have included relevant status comments from the last government reports submitted to Bern ie. for the 2003 & 2006 Expert Group Meetings on the Conservation of Amphibians and Reptiles. Supplementary or tabled reports from SEH. may therefore yet prove helpful at T-PVS 2012, and we ask for the Bureau’s indulgence for any present shortfall in information.

1. Crested Newt Complex (*Triturus cristatus*)

This complex spans 37 range countries; *T.cristatus* (27 countries), *T.carnifex* (15), *T.dobrogicus* (12) and *T.karelini* (9), with the last three also each split into two ‘strong’ sub-species which from time to time are proposed as full species. All are covered by App. II listing in the Bern Convention, and by Annexe II listing in the EU Habitats & Species Directive. The latter provisions have allowed for 43 LIFE funded projects - respectively 25,14, 4 & 0 - though these may not have been dedicated to this species but rather to groups of species or the habitat type. There have also been 3033 SCI designations – 2183, 678, 171 & 1 respectively.

There are many areas within their range where these species overlap, and give rise to claims of naturally occurring hybridisation, some contested, a few confirmed. Rather than hinder species conservation measures, these have added scientific importance as examples of ongoing evolution. While for conservation in these times of climate and environmental changes, such diversity could prove crucial to the taxon’s survival. They therefore merit special conservation consideration.

- **Great Crested Newt (*Triturus cristatus cristatus*)**

This taxon has the largest European range of the complex.

In the north-west of its range the majority of its natural breeding waters had already been lost via the steady lowering of water tables, spring abstraction and capping, and engineered control of flood plains to reduce flooding. Fortunately for this species these habitats had before then been replaced by farm ponds, particularly in pastures and meadows and at woodland edges. Unfortunately, these ponds have now become an obsolete farming feature and are now lost to infill, neglect, pollution, or for use by this newt via introduction of fish or encouragement of wildfowl. Some of these adverse factors should be prevented by species legislation reflecting their European protective status, but if insufficient field surveys are done then the land owner and/or manager will remain unknown, in ignorance, and lacking necessary advice.

See UPAs 4.2.2., 4.2.4., 4.6.1., 4.6.2., 4.8.1

New replacement ponds is another answer though these have to be carefully sited, suitably constructed, and as has been observed in Wallonia < not at the expense of semi-natural habitats; nor near barriers to their breeding migration, eg, new roads. Where it can be properly planned these new ponds can prove invaluable to this and other amphibians, as proven in south-east Sweden, where as a direct consequence their *T.c.* is increasing in range and numbers.

The UK's well intentioned 'Million Ponds' project did not achieve its target and seems to have produced far less benefits for Crested Newts than had been envisaged,

In many cases it would be efficient to direct more conservation funding towards the re-juvenation of over-mature ponds, ie. those where the processes of natural succession acidifies the pond water by the build up from annual leaf drop and subsequent rising silt levels. Unchecked tree and shrub growth near pond margins contributes directly to such problems. Blanket surveys of ponds in >400 Km sq of Greater London and the adjacent are to the south, and in SE Dorset, showed that approximately 33% of all ponds surveyed ponds were in this last stage of neglect/succession and most recorded previously had already lost *T.c.*

We are grateful to see the setting up of an expert group from 7 countries via a LIFE project to advise on this species conservation methods; involving Belgium, Denmark, Estonia, Finland, France, Lithuania. & Netherlands, see UPAs 4.8.2., 4.3.1. 4.6.1. & 4.6.2.

Conspicuous by their absence are the two countries widely thought to host Europe's largest numbers of these newts – Germany and the UK.

The UK has always admitted that it regrets not lodging a national reservation against this species when it ratified the Bern Convention. As it is App.II listed under the Habitat & Species Directive they have had to nominally comply with its legal status, although derogated mitigations for land use changes were shown in 2006 to have had a 60% failure while unreleased 2012 results are suggesting a 90% failure. But the UK will still not accept that such a widespread species should be considered as a national priority. We see this view as running strongly counter to European responsibilities and must hope for some positive changes in attitudes.

As it is considered that the UK and Germany have the highest number of *T.c.* populations in Europe, another problem is the UK's very low SCI/Natura 2000 designations.

Their official estimate of *T.c.* populations has now been downgraded from 100,000 to 60,000, results from sources more based on field surveys propose less than 20,000. This detailed debate hardly matters if one considers an appropriate SCI designation ratio for a species occurring at status levels in tens of thousands. Whatever that may be, it cannot be the present and unacceptably low number of only 57.

See UPA.4.1.1

It is argued that other protected sites, including SCIs designated for other reasons, must support some newts, but given the continued refusal to promote or fund related field surveys, that remains a dubious and unquantifiable defence. Worse is their government agency DEFRA's statement that in

any case they did not adopt these Action Plans at the 2006 Standing Committee, despite the fact that the T-PVS 2006 report records no such dissent (from the UK or any other Member State).

Much fuller field surveys have been achieved in Norway, Sweden, Denmark, Finland, Estonia, Germany and Switzerland. As a result, Finland now has 95% of its admittedly few T.c. sites within Natura 2000 designation.

Data from field survey and site protection in the Netherlands appears to be positive, but focuses disproportionately on Natura 2000 sites alone. The target to achieve c.37% of T.c. within designated SCIs is reported as ongoing, as is the associated field survey.

Direct conservation has been progressed via the LIFE Nature project 'AMBITION' "Amphibian Biotope improvement in the Netherlands" during 2004-2008. However, habitat loss and decrease of its quality is still occurring for more than 60% of the Dutch T.c. populations, mainly in unprotected rural areas.

The repeated monitoring of sampled T.c. populations is now in its 16th year and has revealed that the Dutch populations are slightly increased since 1997 (though with the proviso that the plot choice is skewed in favour of nature reserves). On the other hand their loss between 1950 and 1997 was tremendous, so we must conclude that while that decline has stopped and numbers have recently started to improve, there is still a very long way to go to recover to a sustainable population, let alone to the journey's end and a 'favourable conservation status'.

The Czech Republic reports a good knowledge of the past distribution and confirms that recently the numbers of sites has greatly reduced; A large number of known causes have been identified and appear now to be much more down to pond neglect and fish stocking, but it is not clear if current surveys are underway or whether site problems are yet being addressed, per se, or via the Bern Action Plan.

The best area of T.c. conservation progress is Estonia; its Action Plan was officially adopted in 2007 and is implemented by their Environment Board. 10 nationally protected sites have been declared. A successful LIFE project investigated and brought forward a programme of habitat restoration, protection, and monitoring covering 95% of this species populations in Estonia and Finland, aided by a team of international experts - fulfilling UPAs. 4.1.1.,4.2.1.,4.6.1.,4.8.1. & 4.8.2.

It is classed as rare and threatened in Belgium. There, and particularly in Wallonia, their field surveys, record gathering, herpetofaunal atlases, recorded declines and causes, all combined to pave the way for the preparation of their T.c. pond conservation programme. A new RDL for Flanders classifies T.c. as Vulnerable.

T.c. is Red listed as LC in France where overall it is not considered as endangered, They have a rather scattered distribution but apart from some local declines, often near urban areas eg. Isere, they are considered as a nationally widespread species., There is a good conservation understanding in many areas to look after and to restore ponds for amphibians and from which this newt benefits. Monitoring is carried out in many regions and there is positive public attitude towards amphibians.

One area is however of particular importance; the Gard, Vaucluse, and Bouche-Du-Rhone departments which host the only near Mediterranean populations, albeit fragmented. This autochthonous groups are considered to be relicts of a distribution that had once spread via the Rhone river catchment. At the moment there does not seem to be any signs of decline but they should merit future monitoring attention.

Good conservation progress must also be recognised for T.c. in S.Finland, SE.Sweden, W.Norway & NE Wales., though often through NGO actions without knowledge of the Bern Action Plans and usually lacking national government input.

Slovakia had concluded in 2003 that T.c. was Critically Endangered and decreasing.

Latvia similarly in 2003 that T.c. was now Rare but apparently stable.

Austria reported that T.c. seemed to be decreasing in Lower Austria but there were no surveys or conservation measures underway; the largest known breeding population site in N.Tyrol lacked any protection.

It is hoped that the 2006 Action Plan would since have helped to encourage more conservation input for this species by the 3 countries above.

The Czech Republic's national report in 2003 reported their *T.c.* as Endangered from habitat changes and fish stocking, and consequent population declines over the previous 5 years. By 2011 the situation was being confused by presumed hybridisation.

Overall, it is anticipated that a better understanding of *T.c.* status should come from the results of the H & SD's current Article 17 reporting, then followed by the necessary input to address site and population management needs so identified. However, those few countries who are not funding proper field survey will fail in this.

Denoel's 2012 conclusions remain valid and support Action Plan implementation.

T.cristatus is not only regionally threatened but suffers from a global decline in Western Europe. results (from 5 countries) indicate that newt species often considered as common and not threatened is, in fact, declining more than others. The main problem arising for relatively common species is that their large number of populations may hide declines.

At a coarse grain map scale, *T.c.* losses were significantly more numerous than those of the other 3 sympatric newt species investigated. Similar trends were obtained at the small grain map scale.

The analysis of relative status change between species within guilds in this study has shown that the Great Crested Newt is the most threatened species at a global level in Western Europe. These are in line with EU species ranking within the Habitats Directive, (but not with the IUCN global ranking of this species). This thus indicates that a widespread decline is affecting the Great Crested Newt. Other local reports within Europe are in line with these results (Maletzky 2007).

- **Italian or Predatory Newt**

Triturus carnifex carnifex & *Triturus carnifex macedonicus*.

The first sub species remains comparatively abundant in Italy but with some regional declines and extinctions, particularly associated with valley localities where human pressures and habitat changes are highest.

They are still common in suitable parts of E.Austria.

The Czech Republic in 2003 reported rarity and continuing decline, and a Consequent RDL of Critically Endangered. Neither it or its habitats were protected and its populations had rapidly decreased in its small range over the previous 5 years. By 2011 it has decreased further to only a few known localities; the known causes of their decline are many.

Confined to the Swiss Canton of Tessin, all known sites are officially listed.

Croatia has determined their distribution and has a monitoring programme planned together with proposed Natura 2000 designations

The second sub-species is known from 14 locations in W.Greece in the Ioannina region but remains data deficient in its only other 5 known countries.

Danubian Crested Newt *Triturus dobrogicus dobrogicus* & *Triturus dobrogicus macrosoma*

Both occur in the lowland valleys of the Danube and its main tributaries but within two separated distributions, *T.d.d.* in an eastern Dobrogean area centred around Bucharest, and *T.d.m* in a western Pannonian region centred on Budapest.

The first sub species remains data deficient in all 4 of its range countries, ie. Romania, Bulgaria, Moldova and Ukraine, though in 2003 Romania reported that it had experienced severe decline by the degradation and loss of breeding habitat, even after more than half of its original/natural habitat had been lost by the earlier drainage of the Danube flood plain.

The 2nd sub species is considered widespread in Hungary but with its exact status still unknown.

Status and distribution has been determined in Croatia, and Natura 2000 proposals are underway.

The Czech Republic reported serious decline and extreme rarity in 2003 and an RDL rating of Critically Endangered. This then spawned an initial local programme of pond creation and restoration.

In 2011 they reported that this species was now only to be found in a few isolated locations and with a low abundance. Recent artificial flooding around Breclav and Lanzot was carried out without regard to its presence and life cycle needs.

Their remaining sites are now monitored annually.

It remains data deficient in its 7 other remaining range countries, ie. Austria, Slovakia, Slovenia, Bosnia-Herzegovina, Serbia, Romania and Ukraine.

No national Action Plans exist for this species and none have been reported as in preparation.

There is a pressing need for an urgent and strategic conservation programme for this taxon and which would best be discharged by the formation of a regional expert advisory group – UPA.4.8.2. – ideally funded through a LIFE project, advising on proven methodologies, and making proposals for Natura 2000 and Emerald Network designations.

Southern Crested Newt *Triturus karelinii karelinii* & *Triturus karelinii arntzeni*

The first sub species has an eastern distribution from E.Turkey, southern Black Sea coast north-eastwards round to Georgia and Azerbaijan, and into Russia and the S.Ukraine (Crimea). Still locally common in the Crimea, but vulnerable.

Its range includes the lower Caucasians. Decline and extinctions are reported for its surveyed populations in Georgia; and now considered as rare in Azerbaijan.

Elsewhere data on distribution and status remains largely unknown, as is any information on its occurrence in protected areas ie..in Turkey and Russia.

The 2nd sub species has a western distribution covering SE.Serbia; E.Macedonia; south of the Bulgarian Danube but very rare; NE.Greece; and European Turkey.

In most cases little field data is known, and less on its occurrence, or not, in any protected areas. Thus it must be considered as 'Data Deficient' in its known range, ie. Serbia, Macedonia, Bulgaria, Greece and Turkey.

Therefore here too there is a need for an international expert group similar to and perhaps even in personnel, as that recommended for the Danubian Newt.

2. The Italian Agile Frog (*Rana latastei*)

This species is mainly confined to the Po valley region of northern Italy where its scattered population were often at risk from seasonal water abstraction and diversions. This was principally to support widespread agriculture, including water demanding rice crops. A number of key localities were previously pursued via Bern Convention Recommendations and case files. The water regime in the impressive Bosco Fontana reserve was then more sympathetically and environmentally managed; but it is not known whether their largest national frog population in WWF's Le Bine reserve was upgraded by national or even international designation see UPA. 4.1.1.

Three other edge of range populations exist outside of Italy though varyingly adjacent - S.Switzerland, W.Slovenia & NW.Croatia.

The Swiss habitats have been nurtured, locally extended and nationally protected, and their 25 populations continue to thrive with total annual egg clump counts of 1000 – 1500. New ponds in the canton of Ticino are being quickly colonised.

Recent counts in Croatia are at c.3000 clumps. However, it is not known whether our detailed conservation proposals for Croatia T-PVS(94) 3 were actually implemented. This was for the last remaining 2 Km sq. area of the R.Mrna's riverine forest to be strictly protected and spared from tree felling and agricultural intensification. See UPA 4.1.1. & 4.2.1.

Three smaller valley populations were recommended for regional park inclusion.

The Croatian Herpetological Society ‘Hyla’ had been government funded to investigate threats for incorporation into a national Action Plan for this species which is now due in early 2013.

Recent surveys in western Slovenia are revealing a high density of populations, though their conservation needs and status are not known, and as all previous *R. latastei* LIFE projects have been allocated to Italy.

This species is considered as one of the most endangered of Europe’s amphibians, having a scattered distribution of rather small and fragmented populations and having suffered severe declines and losses. Now it appears to be a little healthier in conservation terms and is even showing an ability to colonise. Is this a real change, or a function from more field data, the results of site protection and management, or an early and for once positive effect from climate change? At this stage we really do not know – which is an even stronger reason to maintain its monitoring.

3. Sand Lizard (*Lacerta agilis*) in NW Europe

Our French & Spanish experts advise that conservation input is required for the 2 isolates of *Lacerta agilis* ‘*garzoni*’ in the foothills of the Eastern Pyrenees.

Poland is not considered in the current Action Plan, and accordingly no recent *L.a.* reports were sought. However, remnant heathland and the survival there of isolated populations of its sympatric close relative *Lacerta viridis* must merit future attention.

Apart from outright habitat loss, the main cause of this species decline in NW Europe is directly related to inappropriate management and neglect of its *Calluna* dominated **lowland dry heath** and associated sandy habitats.

This is the case whether their substrate is geological as in England, or interglacial as in the Netherlands, N. Germany, or Jutland (Denmark).

In welcome contrast, their situation appears to be far healthier and stable to increasing in their surviving **coastal sand dune** habitats. We say ‘surviving’ since many such dune areas had been lost to housing and to desirable ‘Links’ Golf course developments, Even where these have been avoided, the potential and damaging disturbance and trampling pressures of recreational seaside use can only be prevented where frontal dune access is controlled by board walks, and where such pressures are particularly high, even with localised fencing. There may also be local problems from scrub encroachment especially where Pine or Buckthorn has been introduced in attempts to control blown sand and dune mobility.

Adverse heathland management practices include : burning, cutting, recycling heather over too short a time scale for its important mature structure to develop, turfing, plaagen, over-grazing, and grazing by heavy cattle.

Positive management includes scrub, tree, gorse and bracken control, and the provision of open sand for egg laying, and/or via the provision of sterile surfaced fire-breaks.

Accepting that there may be other valid reasons for using some of the potentially adverse heath management above, targeted management for *L.a.* can and should be used as a practical compromise and mainly confined to their “Foci” habitat features such as aspect and appropriate topography.

Simply ignoring this threatened species’ needs, as it too often the case in the Netherlands, Germany and the UK. is quite unacceptable and contrary to many of its Action Plan UPAs. 4.2.1., 4.2.3., 4.2.4., 4.2.5., 4.2.6., 4.2.7. & 4.2.8..

Where there is inadequate baseline survey - UPA.4.5.1.- it follows that protective site designations and any national strategy for this species become problematic, and populations will remain at risk from adverse management practices.

According to their report to the last Expert Group meeting T-PVS(2006)6, and T-PVS/Files(2011)28 for their implementation response to Rec 119 the situation for Estonia is that this is their only threatened reptile species, found scattered over mainland Estonia and the island of Kihnu, and confined to sandy areas many of which are afforested or now overgrown with scrub. Initial

surveys in 2011 found a loss of 43% from its known past localities. A few abundant populations still remain though often confined to open dunes or secondary habitats such as abandoned sand pits.

One key site is now protected and dedicated to this species. More survey is needed and is being planned and aided by a Dutch expert in terms of practical observation techniques. An Action Plan is now being drawn up, implementation is anticipated in 2013.

Their Swedish distribution is well known; sandy meadows in Scania in the south; the island of Ven off the Scanian south east coast; rocky and *Calluna* dominated coastal localities in the south-west, and a remarkable glacial relict far to the north in sandy *Calluna* patches in open woodland – this represents the northernmost of this species European distribution.

The south-western area had already been sanctioned for a new international auto-route when it was found to cross *L.a.* habitats. A successful lizard rescue was achieved with receptor habitat enhanced to allow their relocation.

Monitoring of this re-introduction is underway and early results are encouraging.

The well known large populations on the small island of Ven have been decimated in past decades after human emigration led to an end of grazing of its sandy pastures, with tree and scrub then allowed to encroach unchecked.

Laudable and successful efforts have been directed toward stabilising, enhancing and extending the isolated northern habitats of Vaermland and Dalarna with successful restorations and local re-introductions, all financed by the regional government.

The south-eastern populations in Scania are still losing large areas of their important habitats to farming, which is the main reasoning for its RDL. of VU.

The Bern Action plan has not been disseminated, and is therefore not known.

Although there is no formal national Action Plan either, it could be said that this is effectively done via by the national Co-ordinator post for Sand Lizard monitoring and conservation management.

Its Danish situation appears variable, with the Bern Plan neither known nor circulating. The species is scattered across the main island of Zealand and depends mainly on sandy coastal habitats and agricultural fringe areas.

More status data should be forthcoming after the current Article 17 monitoring.

An EU application has been submitted for *L.a.* management on the island of Anholt and the west coast, of Jutland, including the creation of egg-laying substrates, on Jutland in conjunction with digging out of *Rubus fruticosus*.

An *L.a.* Action Plan is now being drafted with respect to its H&SD. IV listing and its desired favourable conservation status.

Our last field assessment on the large Jutland peninsula confirmed excellent and impressive dune habitats down the upper western coast and supporting *L.a.*

Whereas a quite contrary situation was presented by the remaining heathlands in the centre and east, such that it was not surprising that the habitat related Smooth Snake (*Coronella austriaca*) has long been considered as extinct.

The heather was short, cut, overgrazed, and lacking exposed sand, and our enquiries concluded that their research institute had neither direction, understanding, or indeed any apparent interest in Sand Lizard conservation.

As with the Aesculapian Snake below, the situation in Germany is confused by the practical extent of its claimed devolution. So far none of the relevant Lander recognise any direct responsibility to the Bern Convention. It is an international law involving national government whereas they alone have the legal responsibility for nature conservation, and they are not required to do anything in terms of these Action Plans. None of these Lander authorities for Nature Conservation admit to having ever seen or heard of the Action Plans.

Not surprisingly therefore we have no information yet on the conservation status for L.a. or its potential sand dune and heathland habitats in Mecklenburg - Vorpommern; Schleswig - Holstein; or Nordrhein – Westfalen.

Thanks to our site visits and colleagues in the Nature Conservation Approved German Herpetological Society (DGHT.), we do have information from Niedersachsen with its large and famous heathland reserve “Lüneburger Heide” which is mostly owned and managed by the NGO. “Verein Naturschutzpark Lüneburger Heide. They have never been informed of the Action Plan, and although they have been officially advised where their main L.a. populations are and of their habitat needs, their adverse management continues on a large scale involving burning, mowing, plaaging and grazing. The burning can start in September and still into March, ie. before and after reptiles are in hibernation.

The District authorities are responsible for the management of habitats and species and relevant necessary measures – but again, had never heard of the Bern Action Plan(s).

With all due respect we must ask just what has happened with these Plans and their required follow up once they were delivered to Berlin, and/or in the case of Nature Conservation to Bonn ?

The lack of knowledge of the Action Plan from the failure to disseminate is very similar in the Netherlands, but unfortunately its conservation status on heathland is worse, mainly because there are rarely any local initiatives to rectify problems. We must therefore similarly ask of the Hague just why they appear to have hidden the Action Plan(s) away ? They do not even have any national Action Plan as an initial ‘excuse’.

The situation has been confused by a repeated national transect ‘survey’ mainly intended to assess this species’ national status. While this fairly concludes that coastal dune populations are increasing, this was not initially the situation on inland heather dominated sites – until a correction factor was applied on the grounds that L.a. sightings were harder to make in heather !

Lo and behold the two graphs now tally.

As their transect routes cross known L.a. populations there is also concern that the overall problems of loss and decline, and of neglected or mismanaged habitat risks being overlooked. We witnessed such site situations in 2011 while visiting their key area near Arnhem and saw unchecked Pine and Birch invasion, a lack of egg laying sand, and heavy adverse public pressures via dog waste enrichment and sanctioned mountain and motor bike, and horse riding events, all of which was degrading existing sandy paths and their egg laying potential. Examples were at Rhenen/Veenendaal; Utrechtse Heuvalrug on the Remmerdense Heide; and Het Leesten near Apeldoorn. See UPA 4.2.9

Unfortunately there is now a new invasive alien making headway by its self sown spreading across sandy areas including heaths – the American Cherry Prunus serotina.

The largest and most dense Dutch L.a. population and likely in its whole NW European distribution is a military heath which was consequently excluded from SCI designation. We must question this logic as any future change in training, equipment, use and housing, etc. could spell threats. See UPAs.4.1.1.& 4.1.2.

There is simply no strategic conservation plan in operation for this species, which is currently concluded as Vulnerable, trend slightly increasing. This is chiefly in response to its much better status on dunes, and is more than offset by considered decline and habitat problems within its heathland range.

Even the extensive and nationally important Hoge Veluwe reserve has large areas of potential dry heath rendered unsuitable by inappropriate management.

If such habitat neglect is happening on the “official” Dutch heaths, then that by relevant NGOs is arguably worse. Natuurmonumenten manages many sites but hardly ever focuses on faunal species and especially not reptiles. Its focus is for a considered optimisation of ‘habitat’ as seen from a botanical point of view and within a cultural historical aspect for heathland as a past agricultural system. Consequently, they are grazing, mowing, burning, and turfing without any compromise or heeding of the related and localised needs of L.a. A bad example is that burning is again used

between October and March with obvious risks for those reptiles either not yet hibernating or having emerged.

Their management is also done on far too large a scale, unlike the historic and non-mechanised methods which created much more of a small scaled mosaic pattern which some reptiles could survive. There is no excuse for their actions or attitude since sound conservation advice has long been given from within and without their organisation but which they steadfastly ignore.

We view the consequences as unaddressed breaches of national and international species protective legislation and must request remedial actions. The ultimate responsibility for such laws remains with the government as there are thankfully no claims of any overriding devolution in the Netherlands.

In terms of NL. performance against UPAs. 4.2.1.; 4.2.2.(heath); 4.2.3.; 4.2.4.; 4.2.5.; 4.2.6.; 4.2.7.; 4.2.8.; 4.2.9.; 4.6.1. & 4.8.1. have either not been achieved or only insufficiently so.

The Luxembourg authorities consider that the Sand Lizard is threatened due to its decline and rarity. Populations are scattered and often fragmented. National survey is not yet completed (Engel 2007).

In Belgium, their conservation status in Flanders is inadequately known but their habitat losses via agricultural intensification, forestry, and urbanisation have been high. This suggests that L.a. status is even lower there than in its fragmented remnant range in SW.Wallonia but where commendable input has been made by NGOs to improve and safeguard those populations.

Since 2008 new field surveys have been achieved; good contacts made with local owners, eg. the military, railways, quarry owners, etc. which is in line with their relict heathland distribution in military training areas, abandoned small quarries, and the linear features of rail and road side embankments. Notable progress has occurred with large scale Pine removal on the Lagland military camp near Arlon with the assistance of a LIFE-nature project; small scale sand scrapes have successfully increased L.a. recruitment and larger exposures are now planned.

They too are witnessing encroachment from waves of pioneer saplings of the alien invasive Prunus serotina. the American Cherry as it invades sandy wastes.

Surveys had identified a number of small populations along road and rail routes but it was then realised that new and “more efficient” management methods had been introduced that were destroying both L.a. and its rail habitats. As usual, no official Bern Action Plan dissemination seems to occurred in Belgium and accordingly the NGOs have been left to try to negotiate for amelioration and more favourable methods where this species is present.

With the help of funding from DGARNE (Dept.of Nature & Forests Wallonia), and to their credit they have produced a comprehensive draft Action Plan, one of the best national or regional that we have ever seen, and which does reference the Bern Plan. But this now requires official consideration and adoption by the Wallonian government authorities and so *SEH. requests consideration by T-PVS to invite Belgium/Wallonia to adopt this draft Plan* which will be on display during the Standing Committee meeting.

The Wallonian fragmented distribution lies ribbon like near to the French Border. France has rather good national maps showing herpetofaunal distributions, but it happens that this area of adjacent Ardennes, Burgundy, and Lorraine is poorly known for L.a. SEH. would therefore like to propose that in line with UPAs 4.5.1. and 4.6.1. consideration be given to setting up an international group to both survey and conclude a strategic approach for L.a. conservation in this area. It could prove useful to include neighbouring Luxembourg as well.

The UK. situation could be described as having many of the preceding heathland problems and again with no sign of Action Plan promotion or ownership from the government or assistance to resolve problem issues. There have been conservation successes by the specialist NGO (HCT – ARCT) many with Government Agency support. This has seen improvements in its surviving Merseyside dune range; and re-establishment of its coastal dune range from NW.Wales anti-clockwise right around to the south east coast of Kent, via a series of successful re-introductions via captive breeding.

Its Wealden and N.Surrey heathland range has seen a continuation of targeted heathland management, though now mainly confined to ARCT's sites, together with strategic re-introductions to complement earlier and successful projects.

The conservation problem is now greatest in its main UK range in the Dorset heathlands in terms of *L.a.* sites and populations. Here, ARCT manages a little less than 20% of remaining heaths, inadequately funded and partly compromised by its link to grazing and the contrary presumption that maintaining a "favourable conservation status" for lowland dry heath necessitates grazing and/or cutting, burning, etc... Between autumn 2011 & spring 2012 we visited and photographed *L.a.* habitats over most Dorset sites and hope to be able illustrate the situation with a static display for T-PVS. We then wrote to the managers of 9 of the corporate owners : Natural England; National Trust; Dorset Wildlife Trust; RSPB., and the local governments of Dorset County, Bournemouth; Poole, Christchurch; & East Dorset to enquire whether they had ever heard of or seen the *L.a.* (& *T.c.*) Action Plan. None had, and few expressed any interest. Sadly this disinterest stems back to the late 1960s and we fear that it has become rather ingrained within the culture and an over **parochial** Dorset attitude. This began by the neglect of "botanically boring" dry heaths which were only protected if they served as a buffer to the "more interesting" damp and wet heaths and bogs. A very large area of dry heath and its *L.a.s* were lost, unchallenged, to the pressures for urban development, sand and gravel extraction. That is until the Bern Convention became involved in such issues as Canford Heath and later in the abuse of surviving urban heaths.

Most of the remaining sites are now protected as SSSIs, some are local nature reserves, and many are within the designated Dorset Heathland SCI. Sadly, that doesn't actually seem to help *L.a.* when the habitat management is inappropriate and set in a background where this species is considered as relatively common, and its national and international significance is ignored.

Both HCT and now ARCT have produced a number of excellent advisory publications from A4 'Handbooks' down to A5 pamphlets for the public, and 2 highly relevant research Reports on heathland management and reptiles. One 2009 publication is actually called and intended as an Action Plan but gives no reference to or enough reflection of the Bern Plan.

Most of these publications have government Agency endorsement and grant aid but will not be acted on without due direction and ownership from government. This is generally the response from local government and NGOs., and even less notice is taken by private owners.

4. Aesculapian Snake (*Zamensis longissimus*)

5 edge of range countries are of cited concern in the Action Plan : Czech Republic; Poland; SE.Turkey - Mt.Ararat.; NE.Georgia; Germany; Hessen, - Rheingau & Odenwald.

2 more were proposed for attention in the Rec.106(2003) : Austria; N.Tyrol & W.Salzburg; Ukraine; Carpathians & S.Bug.

This species decline in Spain has been brought to our attention, now with isolates in the Picos de Europa and particularly west of Leon.

T-PVS (2003)18 reports that decline of Czech Republic's of its Critically Endangered population in NW.Bohemia seems to have stopped; current data from the Endangered Moravian population is lacking, but "could be stable", Rec.106 (2003) made 3 proposals for these isolated populations. In its 2011 submitted response to Rec.119, Czechia states that 'ANCP' survey and mapping includes this species and is based on a continuous monitoring system of stable localities. This could meet UPA.4.5.1.

A national Action Plan was drawn up (Adopted, financed, implemented ?) meets UPA .4.8.2. Co-operation with Polish conservationists started in 2011, progressing UPA.4.6.1.

In addition, a separate progress report on their implementation of Rec 106 on the conservation of this snake describes an ongoing research and conservation project funded by government which focusses on marking and identifying and improving sites for hibernation, egg laying, and road mortality.significance. During this research, a local range of upto 15 Km is linked to the Ohre river valley.

All of this has shown the potential adverse effects of a long planned highway 1/13 project to run along this valley and which is now under discussion to try to minimise habitat and individual snake loss by the adoption of “mitigation” measures. (Is this road EU funded ?)

Austria had no information on Z.I. for the meeting, and there were no representatives from Turkey, Ukraine, or Germany, but for the latter country there was a joint report from SEH/IUCN on the Rheingau which regretted the lack of progress on 6 topics and the absence of any related regional strategy framework.

It commended the NGO input by NSH & AGAR but noted that “it was impractical to rely solely on these local NGO volunteers to carry the responsibility for such a national herpetofaunal conservation priority; it was essential therefore that government recognises their co-ordinating role.” Key points from the discussion were incorporated in a draft recommendation which was later adopted at T-PVS as Recommendation 106 and sought to <Ensure that isolated populations of *Elaphe* (now *Zamensis*) *longissimus* :

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

It remains a moot point as to whether any of these matters have yet been adequately resolved and notwithstanding their far more detailed requirements via the 2006 Action Plan UPAs. A 10 page report was submitted to the Hessen Lander government in August 2010, followed by a requested 2 page summary and further prioritisation in August 2011.

No official answer was received until May 2012 following their eventual internal meeting including the research based NGO ‘AGAR’ (Arbeitsgemeinschaft Amphibien und Reptilienschutz. It is only fair to state that during this period we saw nothing but friendly co-operation from Hessen’s T-PVS delegate Detlef Szymanski, but this was not shared by Ministry colleagues for whom receiving reports in English was a little resented even though the accepted languages of both Bern and SEH are French and English, not German. They stated that Hessen had many other flora and fauna conservation priorities above that of this in their view comparatively more common snake. Such a narrow parochial view hardly reflected either their National or European significance.

The regional situation of devolution seems to have left everything to the Lander rather than to the federal government (who had ratified Bern ?), in turn the Lander apparently cannot prevent lower councils from damaging known habitat, nor instruct them to carry out positive or remedial management.

This last underlying problem is stupidly exemplified at Schlangenbad, the only town Europe named for this snake and which is also its proud ‘emblem’. Their Town Council removed the snake’s corridor route along the stream side of their Kurpark by heavy mowing, in the name of park tidying, and despite contrary advice.

An uncut riparian margin of c.5 – 10 m would normally be anticipated environmental practice ? A short distance to the east the flood meadow and surrounds of the small Walluf stream are another snake habitat but increasingly flail mown to enhance recreational uses. Just downstream is a factory complex again with notable sightings of these snakes, their management presently seems sympathetic but personnel changes could immediately result in tidying up their essential rough grassland habitat. None of these three areas have any conservation designation despite the species international protection, this is the case more or less throughout its Rheingau range, other than in Beech forest habitats which have Forst-FENA control.

Much of the 2nd NGO’s ‘NHS’ (NaturSchutzHaus) input is regarding public education education, though they also construct and monitor a few artificial egg egg laying sites, as do AGAR. They have also enhanced several narrow one-way vehicle routes under an extremely damaging and fragmenting recent new highway bypassing Schlangenbad, by laying peripheral branches to assist snake passage. Helpful as this is, it is very much at the lower end of the Action Plan’s corridor and connectivity

requirements, *UPA.4.2.1*. This would be effectively approached via selected routes within the forest with track side tree thinning and coppicing, it is agreed in principle but still requires AGAR and FORST to determine an actual and strategic plan.

That and the siting of artificial egg laying and incubation sites (successful construction researched by AGAR) also need planning more strategically rather than as at present on an occasional if not co-incident way.

AGAR is more of a research rather than a conservation NGO and has revealed some valuable applied ecological findings, including via radio tracking. Their work needs more funding and strategic direction, as a start it is encouraging that Hessen will be providing another 2000 euros for transmitters – but what of Berlin’s coffers ?

Detailed and mapped areas for priority survey have been proposed in our previous reports, partly to investigate the hibernation value of various fissured rock outcrops within the forest blocks, and partly since although the overall Rheingau *Z.L.* range boundary is known, what goes on within is far less known outside of the few study sites. Without such population status data, it remains impossible to attempt much corridoring beyond the few study sites, or to protect and manage other key sites. The investigation of rocky outcrops is set to start in spring 2013. *UPA.4.5.1*.

Mention must also be made of the detailed study and conservation input to the much smaller *Z.L.* range in S.Hessen in the Odenwald. This area is far less pressured and developed than the Rheingau, and has the additional benefit of input by local enthusiasts led by Dr.M.Waitzmann in conjunction with AGAR and volunteers..

The Hessen Ministry has produced an as yet unpublished Species-Protection-Concept ‘AHK’, said to give consideration the Bern Action Plan. That may well have been the intention but before our intervention, neither AGAR nor NHS had ever heard of or seen the Bern Plan and when AGAR located a source it proved to be the far less user friendly and unamended 2005 version. We sent NHS and AGAR copies of the 2006 *Z.L.* UPAs and of our 2010 & 2011 reports and proposals.

5. Meadow Viper (*Vipera ursinii*)

This snake is amongst the most interesting of Europe’s fauna now surviving as a post glacial relict within a highly fragmented distribution of isolated populations. It is Europe’s smallest viper and apart from some feeding on lizards and small mammals, it is mainly insectivorous showing a strong preference for large Orthopterans. It is venomous, but placid, and poses no known risk to humans, their stock or dogs. Nevertheless, being a snake and patterned as a viper it is too often killed on sight. Ironically, only its extreme rarity now limits that effect ! Long recognised as amongst Europe’s most threatened snakes.

Its split distribution pattern embraces *i.* A highly fragmented montane form in alpine and sub-alpine meadows from 900 to 3000m depending on the climatic region; and *ii.* A lowland form in the remnants of the Danubian river system flood meadows below Budapest; in the north east close to the border with Austria; and a few of its Delta islands.

The lowland habitats have been lost and degraded by vast drainage and flood prevention schemes, and by subsequent arable, forestry, and intensive grazing uses. The montane areas have proved at risk to insensitive and ill-sited recreation developments, particularly for ski-ing associated uses. The mechanised creation and management of piste slopes can be highly damaging to the ground level habitats required by this species

Limestone often underlies its montane range, the moreso where the ground topography is enhanced via fissures, ‘pavement’, and vegetated doline structures. Montane or lowland, suitable meadows require a structure including respectively prostrate Juniper, low tussocks, ant & mole hills. Unfortunately, traditional shepherded grazing can involve the regular burning off of just such “unpalatable” vegetation, while the over stocking of lowland meadows can destroy the cover and grazing platforms provided by mature ant hills. Conversely, complete neglect can lead to unfavourable encroachment by shrub and trees in the now flood restrained lowland, and by montane Pine in SE.France. Such adverse situations must be prevented on designated sites, see *UPAs* 4.2.3. & 4.2.4.

Even on well intentioned nature reserves, mechanised cutting risks degrading the required habitat structure, and should therefore be subject to suitable restriction; see UPAs 4.2.1. & 4.2.5.

There are 5 recognised sub-species; 3 montane taxa, and 2 Critically Endangered lowland taxa within their severely fragmented distribution.

- **Hungarian Meadow Viper, *Vipera ursinii rakosiensis***

Historically common, even abundant in a large range covering the Great Plain of central Hungary; the Small Plain(Hansag) in western Hungary, into eastern Austria where it is now extinct; western Romania; and probably the adjacent steppe grasslands of Slavonian Croatia and Vojvodinan Serbia. From this healthy distribution we are now left with less than 12 small populations in Hungary and 1 in Romania.

Commendable conservation efforts had been made in central Hungary, initially by field surveys and elevating this snake to the highest level of national protection, then more recently as aided by a LIFE project allowing a large captive reared source of vipers for future release and population enhancement; habitat extensions adjacent to protected sites by the removal of arable and forest strips and their reversion to meadow; and the production and dissemination of public education materials. Key sites, particularly the purchased and important meadow in Kunpeszer, have been incorporated into adjacent National Parks. 7 SCIs have been declared for this taxon (presumably all in Hungary ???). A number of relevant UPAs have therefore been discharged or initiated.

One serious problem remains – that of better reconciling the results of traditional manual scything of these meadows with current machine cutting and its obvious risks to the degradation of habitat structure. See UPA.4.2.5. which is equally applicable to their Hansag reserve area.

Little progress appears to have been made on habitat improvement and potential re-introduction to the E.Austrian sites of Moosbrunn and/or Schwechat – UPA.4.2.8. although they had reported in 2003 that the only habitat potential in Lower Austria was the strictly protected 9 ha. Pischelsdorfer Wiesen but this did not have any tussock vegetation (presumably since they mow it each year !)There were a number of protected meadows in the Neusiedlersee National Park which is close to Hungary's Hansag and also with past V.u.r. records. Mowing had recently stopped and is replaced by a mixture of grazing by Hungary's large grey steppe cattle, donkeys, horses, and other cattle. (It should hardly need rocket science to design and operate a management regime to quickly re-establish V.u.r. habitat(s) in order to facilitate re-introduction?) UPA.4.2.8.

Nothing has been reported on conservation progress in Romania, in particular the urgent enlargement and habitat restoration for their sole surviving population in the Finatele Clujului 30 ha.meadow which was surrounded by dense arable and a presumed pesticide influence. See UPA.4.1.2.

However, while the official 2003 reporting concluded extremely grave decline with many causes listed, and their extinction from the/this best known site near Cluj, the 2006 Action Plan cited unconfirmed V.u.r. discovery at other small locations in the same general area albeit severely threatened, and a recently approved LIFE grant to research and restore the original and still extant Cluj meadow ! Confusion reigns.

During this same period, a LIFE project was approved in 2005 for *Vipera ursinii rakosiensis*.

- **Moldavian Meadow Viper, *Vipera ursinii moldavica***

This is the second lowland taxon and its conservation status is in urgent need of determination and recovery measures, neither of which appears likely. Romania similarly reported in 2003 on their extremely grave decline, again with many known but not addressed causes. It was concluded that most populations were likely extinct, with the only one to known to have certainly survived was severely threatened. At the time of the 2006 Action Plan, that site was confirmed as the 46 ha.Valea Lui David Natural Reserve close to the border with Moldova, as was unconfirmed reports of several more sightings having been made from steppe remnant sites in this same general area. Survey and subsequent conservation measures are top priority actions here.

At least three other populations are known to survive in sandy meadows within the Danube Delta Biosphere Reserve, but they were not a targeted species and so had no specific management measures for guidance, eg. to prevent overgrazing or winter flooding of key viper habitats. This too needs addressing.

A grant aided LIFE projects was made to Romania for '*V.ursini*' in 1999.

The situation in Bulgaria and Moldova is no less confusing. Both countries have records for Meadow Vipers but it is not known whether any survive or where, nor is it known whether to anticipate *V.u.rakosiensis* and/or *V.u.macrops* and/or *V.u.moldavica* and/or even *Vipera renardi* ! All that is sure is that the people's massed tractor drivers who so quickly converted the meadows and steppe habitats to chemical soaked prairies wouldn't have been all that concerned about biodiversity.

UPAs 4.1.1.,4.1.2.,4.1.3.,4.2.3.,4.2.5.,4.2.7.,4.2.8.,4.4.1.,4.5.3.,4.5.4.,4.8.1 & 4.8.2.

- **Balkan or Karst Meadow Viper, *Vipera ursinii macrops*.**

Croatia; Bosnia-Herzegovina; Serbia; Montenegro; F.Y.R.of Macedonia & Albania.

This montane taxon is scattered through appropriate elevations of between 1000 - 2100 m, mostly associated with Karst formations as in the Dinaric Alps. Little is yet known of their conservation status or needs, but good news is now on the way.

A two year pilot study using international expertise from Croatia; Bosnia – Herzegovina,; Serbia; Montenegro; and Hungary, have teamed together to organise field surveys aided by volunteers and students using predictive habitat mapping, scientific research, and public education.

This has been achieved under the auspices of the Croatian Herpetological Society HYL A, and the University of Sarajevo, using modest grant aid from the Rufford Small Grants Foundation.

The project already confirmed new populations from 16 selected mountain areas in B.Hz. which is considered to host 60% of this snake's range, yet where it has no legal protection or Action Plan. Their genetic work has discovered that *V.u.macrops* in the Balkan peninsula is divided into two clear phlogenetic lineages which converge in B.Hz.

Their future plans are to more thoroughly survey B.Hz for this viper, describe its montane habitats and any threats; organise scientific workshops, publish educational brochures, and generally improve regional co-operation. One practical difficulty is an abundance of 1990s abandoned land mines; another the more usual lack of funding.

There could be some potential for future consideration for Emerald Network designations.?

The known *V.u.macrops* stronghold in the Serbian region is reportedly Kosovo where access remains problematic.

This snake was known only from the west of F.Y.R. Macedonia, in the Shar and

and Korab mountains but in 2006 it was discovered in karstic habitats in the Bistra mountains between a 1650 – 1900 m. Elevation.This now represents the southern most distribution in this country.

Its photographed habitat is typically grassy montane pasture with scattered stones, Juniper and Bilbury clumps. Nothing is yet known of its population size, extent, or conservation status, which should be investigated. See UPAs 4.1.1., 4.2.3, 4.2.4.,4.5.1.,4.6.1. & 4.8.1.

- **Greek Meadow Viper, *Vipera ursinii graeca*.**

Only confirmed in the 1980s, it is now known from 4 alpine meadows in the Pindos mountains National Park in NE.central Greece. Some threats are known, including ever present risks to all Meadow Vipers of collection by unscrupulous pet keepers and worse by their suppliers. Nothing is known of their conservation status or population trend. See UPA 4.5.2.

- **Orsinii's Meadow Viper, *Vipera ursinii ursinii*.**

France reports a welcome and considerable effort for this species which is now known from 16 sites in the pre-alpine ranges of Provence-Alpes-Cote d'Azur in the southeast. 13 of these, covering

8000 ha. were studied under a large LIFE grant aided project from 2006 – 2011, in part conjunction with their First Recovery Plan spanning 2005 – 2009. Many useful conservation aspects were advanced including meadow habitat management by grazing; genetics; removal of encroaching trees from 550 ha; traditional methods of keeping the favourable habitats open; the snakes colonisation of improved sites (7 of 8); education for three publically used viper sites, Ventoux, Mt.de Lure, and Grasse.

The well studied Mt.Ventoux populations cover 140 ha. and were thought to support a population of at least 1000 adults, while 4 other populations from the same region Cheval Blanc, Caussols, Calern and Cheiron are of even greater size. It must be assumed that all 5 populations are included in designated SCIs. See *UPA* 4.1.1., Doubts remain over Caussols where *V.u.u.* may be cited but **not** as a main justification yet it has the highest French population and among the best in Europe. Current estimates for France is 60,000 individuals (needs converting as adults).

Italy hosts 20 separate viper populations scattered along relevant karstic habitats along 5 main massifs of the Apennine from 1400 – 2400m elevation. These potential areas cover an estimated total of c.27,000 has. wherein the snake is more restricted to smaller areas of favourable habitat. By far the most important national site is Campo Imperatore in the Gran Sasso where the viper's density is considered as the highest. There is also a rarer and more isolated population in the Duchessa Mountains.

SCI sites have been designated, but beyond this current conservation status and needs are not known, although past burning of Juniper by shepherds, over grazing, and collection, have both been reported, as had proposed access and facilities for recreational skiing. International co-operation with French experts would seem a logical move to speed up progress and Action Plan implementation.

See *UPAs*. 4.2.1.,4.2.3., 4.2.4., 4.3.1.,4.8.1. & 4.8.2.

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