



## 5<sup>th</sup> Meeting of the Advisory Committee

Zagreb, Croatia, 21 – 23 February 2000

### Record of the Meeting

#### 1. Attendance

This is listed at Annex 1 to this Report.

#### 2. Opening remarks

On behalf of the Croatian Government that was hosting the Meeting, his Excellency the Minister of Environment and Physical Planning, Mr. Božo Kovačević, welcomed the delegates to the Advisory Committee and expressed his gratitude to be hosting such an important event.

The minister gave an encouraging opening address and expressed his hope for a successful Meeting.

Mr. Peter Lina (Netherlands) opened the Meeting as acting Chairman. He expressed his thanks to the Croatian Government for providing the excellent facilities and organising such an interesting field-trip the day before the Meeting.

Mr. Andreas Streit (Executive Secretary) welcomed all the participants to the Meeting and expressed his pleasure to see delegates from 29 countries. He remarked that the acting chairman, Mr. Trevor Salmon, had resigned and explained that Mr. Peter Lina had taken up the role as acting chairman. The excellent work of Mr. Salmon first as the Interim Secretary and then as Chairman of the Advisory Committee was unanimously recognised.

The Executive Secretary also thanked the German Government for the voluntary contribution it provided to finance the participation of delegates from countries with economies in transition.

#### 3. Election of Vice-Chair

Since the Rules of Procedure did not foresee the resigning of a Chair, it was decided to elect a new Vice-Chair. Mr. John Clorley (United Kingdom) nominated

Ms. Luisa Rodrigues (Portugal) to act as Vice-Chair. Seconded by Mr. Paddy O'Sullivan (Ireland), the election was decided unanimously.

#### **4. Adoption of the Agenda**

The Committee adopted the Agenda.

#### **5. Adoption of the Rules of Procedure**

The Executive Secretary suggested some changes to rule 5, paragraphs 2 and 3. Mr. John Clorley (United Kingdom) suggested that the same rules should apply to the Vice-Chair.

The Rules of Procedure were adopted as amended.

#### **6. Approval of the minutes of the 4<sup>th</sup> Meeting of the Advisory Committee**

The Minutes were adopted.

#### **7. Secretariat Report**

##### **a) Budget**

The Executive Secretary drew the attention to the written Report. He thanked the German Government, namely the Ministry for the Environment, Nature Protection and Nuclear Safety (BMU) and the Federal Agency for Nature Protection (BfN) for the ongoing support of the Secretariat in Bonn. He also thanked the BMU for carrying out the audit free of charge.

The Executive Secretary was pleased to inform that in 2000 the contributions from the Czech Republic, Denmark, Ireland, Luxembourg and Monaco had already been received and recalled that all payments should be effected before the end of June of the financial year to which they relate.

Outlining the importance of France's substantial contribution to the budget, the Committee expressed its hope for the receipt of the 1999 payment in the close future.

##### **b) National Reports and updates to National Reports**

Before the Meeting, the Executive Secretary had only received National Reports from the Czech Republic and Denmark and updates to the National Reports from Portugal and Russia. Therefore, it was not possible to prepare a synthesis of Implementation Reports. Shortly before the Meeting, further updates to National

Reports were received from Azerbaijan, Bulgaria, Georgia, Germany, Hungary, Slovenia and the United Kingdom.

The Executive Secretary recalled that all National Implementation Reports would be due at the latest at the end of April for the forthcoming session of the Meeting of Parties.

Oral presentations were made by Parties and Range States regarding their progress on bat conservation measures and also by Range States towards acceding to the Agreement (Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Ireland, FYR Macedonia, Netherlands, Norway, Poland, Sweden, Ukraine, United Kingdom, Armenia, Austria, Azerbaijan, Belgium, Croatia, Estonia, Georgia, Italy, Latvia, Lithuania, Moldova, Romania, Russia, Slovenia).

#### **c) Agreement Membership**

The Executive Secretary informed the Plenary that the Agreement membership increased by five Parties in 1999 (Bulgaria, Finland, FYR Macedonia, Monaco and Ukraine), which was considered a major progress. Romania had ratified the accession to the Agreement recently. Also, Croatia's accession was to be expected in the near future.

#### **d) Publicity**

The Executive Secretary informed that the third European Bat Night was very successful again, taking place in 19 countries. Special mention of the tremendous success in Croatia was made. The fourth European Bat Night will take place in 2000. The Executive Secretary suggested to keep as a fixed date the last week-end in August. However, countries participating are free to choose other dates.

Germany invited the Executive Secretary to inform the Plenary about the results of his attendance to the last CMS Conference of the Parties and the last Standing Committee Meeting of the Bern Convention.

The participation in these events showed again the importance to use such occasions to promote the Agreement and to attract new Parties.

### **8. Administrative Matters**

#### **a) Report on preparations for the 3<sup>rd</sup> Session of the Meeting of Parties and report of the Depository (United Kingdom)**

### *Report on preparations for the 3<sup>rd</sup> Session of the Meeting of Parties*

The United Kingdom informed the Meeting that the 3<sup>rd</sup> Session of the Meeting of the Parties would be held in Bristol from the 24<sup>th</sup> to 26<sup>th</sup> July 2000 and that the preparations were on a good way.

### *Report of the Depository (United Kingdom)*

The United Kingdom informed that with the accession of Bulgaria, the first Amendment to the Agreement came into force on 8 January 2000. Thus, the Amendment was in force for five Parties.

The Depository also informed that the official German translation of the Amendment was already available and that the French version was still being worked on.

### **b) Report of the Intersessional Administrative Working Group**

The Report was presented in the Administrative Working Group.

### **c) Draft Resolution No. 3.1: Integration of the EUROBATS Secretariat into the UNEP/CMS Agreements Unit**

The Draft Resolution was approved by the Administrative Working Group without amendment and is annexed to this Report. However, France expressed its concern about the major budget increase that this resolution would imply.

### **d) Draft Resolution No. 3.2: Financial and Administrative Matters (Budget 2001 – 2003)**

Before the Resolution was discussed in the Administrative Working Group, the Audit Report for the financial year 1999 was approved.

The Executive Secretary reported that the financial gap in the present budget could be covered by savings and due to the fact that the United Kingdom would generously cover all costs for the forthcoming session of the Meeting of Parties.

The Draft Resolution (annexed to this Report) was approved as amended, since the Parties unanimously saw the need to include appropriate budget allocations to finance the participation of delegates from countries with economies in transition at the Meetings of the Agreement. The parties also agreed that the framework criteria for funding should be based on the CMS-model.

It was unanimously recognised, however, that for the forthcoming session of the Meeting of Parties substantial voluntary contributions for this purpose would still be required.

Some Parties expressed their concern about the further increase of the budget due to the amendments and informed the Meeting that further discussion within their countries would be required before the budget could be agreed at the next session of the Meeting of Parties.

**9. Report of the Intersessional Working Group “Consistent Monitoring Methodologies”**

Not having finished their work yet, the Working Group (Annex 2) was requested to present their findings at the next Advisory Committee Meeting.

**10. Report of the Intersessional Working Group “Database of Monitoring Results”**

The Committee felt that there were further needs to clarify the requirements that such a database should meet and established an Intersessional Working Group (Annex 2).

**11. Report of the Intersessional Working Group “Transboundary programme - habitats: Data compilation”**

The convenor presented the findings of the Working Group. It was agreed that the participating countries should identify and prepare a list of the most important roosts in their territory. The identification of the roosts should follow the guidelines presented in this Report (Annex 3). The Working Group (Annex 2) agreed to compile the national lists.

**12. Report of the Intersessional Working Group “Transboundary programme – habitats: Forest practices**

Not having finished their work yet, the Working Group (Annex 2) was requested to present their findings at the next Advisory Committee Meeting.

**13. Report of the Intersessional Working Group “Geographical scope of the Agreement: Migration routes”**

The convenor presented the findings of the Working Group.

Since contributions from several countries were still missing, it was agreed that the data should be sent to the Working Group as soon as possible. The Working Group (Annex 2) would then review the species’ accounts and the maps and present a new version of the report in the next Meeting of the Advisory Committee.

## **14. Report of the Intersessional Working Group “Bat Conservation and Management Plan”**

### **a) Actions 8 and 17**

The convenor presented the findings of the Working Group regarding Action 8. The Advisory Committee decided to set up a Working Group (Stéphane Aulagnier, Marie Nedinge, Teodora Ivanova, Dino Scaravelli, Tony Mitchell-Jones, Jacques Fairon and Daniela Hamidović) to further analyse the information provided. Stating that several action plans for Northern-European species already existed, the Working Group suggested to give more focus to the species in the Mediterranean region in the future. As knowledge was still scarce on certain species the following experts would gather and circulate further information: Ms. Teodora Ivanova (*Rhinolophus euryale*, *Miniopterus schreibersii*), Mr. Dino Scaravelli (*Rhinolophus mehelyi*, *Nyctalus lasiopterus*), Ms. Daniela Hamidović (*Myotis capaccinii*), Dr. Rumiana Pandurska (*Myotis emarginatus*) and Mr. Tony Hutson (*Tadarida teniotis*). The Working Group (Annex 2) would convene again during the forthcoming session of the Meeting of Parties. The convenor also presented the findings of the Working Group regarding Action 17.

Not having analysed the data yet, the Working Group (Annex 2) was requested to present their conclusions at the next Advisory Committee Meeting.

### **b) Action 20**

The convenor presented the findings of the Working Group. In order to complete the list of publications concerning building industry awareness already prepared by the Group, the participating countries were requested to provide the Secretariat with other relevant publications. The Secretariat was instructed to scan these documents to make them accessible on the web-site.

### **c) Action 22**

The convenor presented a questionnaire regarding remedial timber treatment which will be circulated amongst the Parties for reply. The Working Group (Annex 2) would present their findings at the next Advisory Committee Meeting. The Parties can consult the Report of the Survey of OECD Member Countries' Approaches to the Regulation of Biocides (OECD, 1999) at:

[www.oecd.org/ehs/ehsmono/04E95086.doc](http://www.oecd.org/ehs/ehsmono/04E95086.doc) (206 pages).

### **15. Draft Resolution No. 3.3: Further Implementation of the Agreement**

The Chair gave some background information to this Draft Resolution. The goal was to encourage an adequate and effective implementation of the Resolutions of the Agreement. The Parties felt that there was no need for such a resolution, but that the underlying aim would be fulfilled with Draft Resolution 3.4.

The Draft Resolution was withdrawn.

### **16. Draft Resolution No. 3.4: Format of National Reports**

The Chair gave some background information to this Draft Resolution. A Working Group (Teodora Ivanova, Leif Gjerde, Christine Tucker and Gerhard Adams) was established to redraft the Resolution. The redraft was approved, renumbered 3.3 and is annexed to this Report.

### **17. Draft Resolution No. 3.5: Amendment to the Agreement**

The Executive Secretary introduced a memorandum (Doc.EUROBATS.AC5.5) concerning a possible amendment to the Agreement and its geographical scope.

Since the Parties recognised the advantages of such an amendment, the United Kingdom offered to present a Draft Resolution to the forthcoming session of the Meeting of Parties.

### **18. Draft Resolution No. 3.6: Geographical Scope of the Agreement**

The Executive Secretary presented the Draft Resolution. A Working Group (Stéphane Aulagnier, Gerard Adams, Tony Mitchell-Jones and Alexei Borissenko) was established to clarify the geographical scope of the Agreement area and to identify the species that should be covered by the Agreement.

The Working Group presented a list of the species considered to occur in Europe (Annex 4, Europe as defined in Resolution No. 5 of the 2<sup>nd</sup> Session of the Meeting of Parties). As the formal recognition of *Pipistrellus pygmaeus* was still outstanding, it was decided to have this species on the list but to keep it in brackets for the time being. The Executive Secretary was instructed to further analyse which countries would be covered by the presented species-list in co-operation with experts of the Advisory Committee.

The Draft Resolution therefore was postponed.

### **19. Draft Resolution No. 3.7: Restriction of Bat Ringing during Hibernation**

The Executive Secretary presented the background and explained that this proposal was based on the results of a questionnaire previously circulated amongst European bat scientists.

Due to the complexity of this issue and the general concerns expressed in the Plenary, a Working Group (Peter Boye, Zoltan Bihari, Tony Hutson and Christine Harbusch) was established. The Working Group suggested that the Advisory Committee should prepare guidelines for the issue of permits for bat ringing or other marking activities to be presented at the 4<sup>th</sup> Session of the Meeting of Parties.

The Draft Resolution was amended accordingly, renumbered 3.4 and is annexed to this Report.

### **20. Draft Resolution No. 3.8: International Year of the Bat**

For the purpose of further promoting the Agreement, the Executive Secretary suggested to invite the 3<sup>rd</sup> Session of the Meeting of Parties to declare 2001 as the "International Year of the Bat", recalling also the tenth anniversary of the signing of the Agreement.

The Draft Resolution was accepted, renumbered 3.5 and is annexed to this Report.

### **21. Draft Resolution No. 3.9: Terms of Reference for the Advisory Committee**

A brief introduction was given by the Executive Secretary, explaining that the Terms of Reference for the Advisory Committee, adopted by the 2<sup>nd</sup> Session of the Meeting of Parties, were limited to the past biennium. He therefore requested the Committee to specify the tasks to be carried out in the next triennium.

The Draft Resolution was approved with amendments, renumbered 3.6 and is annexed to this Report.

### **22. Proposal for a new Logo of the Agreement to be adopted at the 3<sup>rd</sup> Session of the Meeting of Parties**

The Executive Secretary explained the practical background of the Proposal. Recognising the value of the well-established existing logo, the participating countries preferred to maintain it.

## **23. Any other business**

### **a) Discussion paper on *Myotis schaubi***

Mr. Tony Hutson (BCT) presented a discussion paper on a potential inclusion of *Myotis schaubi* in the list of Priority Species for Autoecological Studies under Resolution No. 8 (2<sup>nd</sup> Session of the Meeting of Parties).

Since additional information seems to exist, the Advisory Committee asked the proponent to prepare an update of the document for the next Meeting of the Advisory Committee.

### **b) Revision of the List of Priority Species for Autoecological Studies under Resolution No. 8 (2<sup>nd</sup> Session of the Meeting of Parties)**

The Advisory Committee suggested that the revision of the Priority List should be prepared for the next Meeting of the Advisory Committee. An Intersessional Working Group was established (Annex 2).

### **c) Bern Convention Action Plans for the Conservation of the Pond Bat and the Greater Horseshoe Bat in Europe**

Mr. Tony Hutson (BCT) introduced the two Action Plans. The Advisory Committee invited him to prepare a document for the forthcoming session of the Meeting of Parties explaining which parts of the two Action Plans were already covered by the implementation of the Agreement and which additional activities might be required.

### **d) Celebration of the tenth anniversary of the signing of the Agreement**

The Executive Secretary raised the question how to celebrate this event and saw a possible solution in combining it with the 6<sup>th</sup> Meeting of the Advisory Committee. The suggestion was approved by the Committee.

Portugal generously agreed to take this proposal into consideration.

### **e) Establishment of the Bat Conservation and Management Plan for 2001 - 2003**

An Intersessional Working Group (Annex 2) was established to develop appropriate proposals for the forthcoming session of the Meeting of Parties.

### **f) European Bat Conservation Research Network**

Dr. Matti Masing (Estonia) gave a review of his proposal as presented at the 4<sup>th</sup> Meeting of the Advisory Committee and in particular outlined the need for funding of the suggested network. The Committee concluded that no additional institution was

required to implement the Agreement and that funding would not be possible within the EUROBATS framework.

**g) Venue of the 7<sup>th</sup> Meeting of the Advisory Committee and the 4<sup>th</sup> Session of the Meeting of Parties**

The Executive Secretary invited the Range States to consider an invitation for the 7<sup>th</sup> Meeting of the Advisory Committee in 2002 and for the 4<sup>th</sup> Session of the Meeting of Parties in 2003.

**24. Close of Meeting**

On behalf of the Ministry of Environment and Physical Planning Ms. Jasminka Radović (Croatia) thanked the Advisory Committee for having accepted the invitation of the Croatian government and expressed her gratitude for having had the opportunity to host the Meeting. She also outlined Croatia's continuing efforts to accede to the Agreement in the near future. Mr. Darko Kovacic (Croatia) seconded Ms. Radović's statement.

The Chair expressed his thanks towards the Croatian government for the excellent organisation of the Meeting. He also thanked the Vice-Chair for having acted in such an able manner, the participants for carrying forward so much enthusiasm and the Secretariat for the excellent preparation of the Meeting.

There being no further business, the Meeting was closed at 11.50 a.m.



## 5<sup>th</sup> Meeting of the Advisory Committee

Zagreb, Croatia, 21 – 23 February 2000

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5<sup>th</sup> Meeting of the Advisory Committee

Zagreb, Croatia, 21 – 23 February 2000

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Transboundary programme – habitats: Data compilation	Dr. Tony Mitchell-Jones (United Kingdom)* Mr. Zoltán Bihari (Hungary) Ms. Luisa Rodrigues (Portugal) Dr. Matti Masing (Estonia)
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Geographical scope of the Agreement: Migration routes	Ms. Luisa Rodrigues (Portugal)* Dr. Marcel Uhrín (Slovakia) Ms. Teodora Ivanova (Bulgaria)
Action 8 (Resolution No. 8 of MoP 2)	Dr. Stéphane Aulagnier (France)* Mr. Jaques Pir (Luxemburg) Prof. Ingemar Ahlén (Sweden) Ms. Marie Nedinge (Sweden) Ms. Teodora Ivanova (Bulgaria) Dr. Rumiana Pandurska (Bulgaria) Mr. Dino Scaravelli (Italy) Mr. Tony Hutson (BCT) Dr. Tony Mitchell-Jones (United Kingdom) Mr. Jaques Fairon (Belgium) Ms. Daniela Hamidović (Croatia) Mr. Peter Boye (Germany)
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Action 22 (Resolution No. 8 of MoP 2)	Dr. Tony Mitchell-Jones (United Kingdom)* Mr. Peter Lina (Netherlands) Mr. Gunârs Pētersons (Latvia)
Review of the list of Priority Species	Mr. Tony Hutson (BCT)* Dr. Alexei Borissenko (Russia) Ms. Teodora Ivanova (Bulgaria)
Establishment of the Bat Conservation and Management Plan for 2001- 2003	Mr. John Clorley (U.K.)* Mr. Gerhard Adams (Germany) Ms. Luisa Rodrigues (Portugal)

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## 5<sup>th</sup> Meeting of the Advisory Committee

Zagreb, Croatia, 21 – 23 February 2000

Guidelines for the implementation of Resolution No. 4  
adopted by the 2<sup>nd</sup> Session of the Meeting of Parties

Transboundary programme - habitats: Data Compilation

(Dr. Tony Mitchell-Jones, Mr. Zoltán Bihari, Ms. Luisa Rodrigues, Dr. Matti Masing)

### 1. What is an underground habitat?

Because bats have adapted to using a variety of man-made structures as 'artificial caves' the term 'underground habitat' should be interpreted widely to include any underground (or mainly underground) structures which fulfil the function of a natural cave in the lives of bats. Such places should have many of the characteristics of an underground climate: absence of light and photoperiod, moderate annual temperature range and high humidity.

This definition would include, for example:

Natural caves and rock crevices

Mines, galleries and other underground workings

Tunnels (road, rail, service, canal etc), particularly when these are disused

Underground fortifications of all types

Cellars, ice-houses and other structures associated with buildings.

Some classifications have been proposed for types of underground site. Masing (1990), for example, proposed a system that differentiated sites on accessibility to humans and whether the sites had an artificial lining. However, any such hierarchical classifications suffer from difficulties when attempting to classify sites with a mixed origin, such as natural caves that have been modified by mining. Instead, we proposed that sites are initially allotted to one (or more) of the following categories:

Natural caves and rock crevices (that have not been extensively modified by man)

Mines of all types

Tunnels (road, rail, canal, water)

Fortifications (bunkers, forts, turrets etc)

Cellars, ice houses, ventilation shafts

Industrial buildings (lime-kilns etc)

Wells

Other (include short description)

Sites can also be classified according to the main season of use by bats or by the use bats make of them. In general, the latter classification is probably more useful as it relates to the biological requirement: A suitable classification, based on the **main** use of the site is:

Maternity site

Hibernation site

All-year site

Transient site

This classification may depend on the species of bat. For example, a site may function as a maternity site for one species but a hibernation site for another species. In this case, the site would be classified as an all-year site in a multi-species list but as a maternity site when classifying sites for the first species. Bats also use underground habitats for other reasons (night-roosts, swarming sites, mating roosts), but sites are unlikely to be nationally important for these reasons alone.

Within these definitions, there are also differing interpretations of the concept of a site. In some cases a site can be taken to be a single tunnel, cave or mine, in other cases a group of closely related underground features may be considered as a single site. We propose that, at the first stage, the question of what constitutes a site is left to the national authorities, who are best placed to make this judgement.

## **2 Criteria for identifying underground habitats of European importance**

The national conservation importance of sites has been assessed on two basic criteria:

Species present (or number of species present)

Number of bats

In the majority of situations, the two criteria are used together so that both the species and number of bats are used together in selecting sites of national importance. These two criteria have been applied in various ways across Europe and several national classification schemes have been developed.

## 2.1 Species richness schemes

Species richness schemes have been applied to sites used by multiple species. These take into consideration both the number of bats using the site and the number of species recorded there (both recorded in a variety of ways).

A simple unweighted system (Masing, 1998) has used the number of bats multiplied by the number of species to rank hibernation sites in Estonia at a national level. The same system could also be used to rank underground habitats used as maternity sites in southern Europe. Identifying sites of national importance then requires the application of a threshold point to the ordered list.

An alternative method of classifying multi-species sites has been to set thresholds for the number of species and/or the number of individuals. For example, in the UK sites containing either:

- 4 or more species and 50 or more individuals,
- 3 or more species and 100 or more individuals,
- 2 or more species and 150 or more individuals,

have been identified as nationally important (Nature Conservancy Council, 1989) (see Appendix 1). A very similar scheme has been applied in Portugal (Palmeirim & Rodrigues, 1993), where the IUCN conservation status of the species was also taken into account. Clearly, the application of such a system requires some prior knowledge of the species and numbers of bats found in underground habitats in the territory and implies that some assessment of the number of sites likely to qualify has been done.

For this project, where there is little prior knowledge of the number of sites across Europe, we propose collecting information about species and numbers in a selection of the best sites in each country and then testing a simple scoring system to rank sites at the European scale. The proposed scoring (Table 1) is based on the Eurobats priority list and conservation status from the draft European Red Data Book for Vertebrates (ERDB) (Council of Europe, 1997). Species which are Eurobats priority or considered VU in the ERDB score 4 points, species which are LRnt score 2 points (with *Myotis blythii* included as it is difficult to separate from *M. myotis*), the remaining species score 1 point. The only exception seems to be *Barbastella leucomelas*, which should, perhaps, be a Eurobats priority species. This scoring system could also be used in the initial selection of sites for each country, though we recognise that a final decision about the application of a scoring system cannot be made until it can be tested on some data.

<b>Scientific name</b>	<b>Eurobats priority</b>	<b>ERDB Status</b>	<b>Dependence on underground habitats</b>	<b>Proposed score</b>
<i>Rhinolophus blasii</i>		VU	H	4
<i>Rhinolophus euryale</i>	Y	VU	H	4
<i>Rhinolophus ferrumequinum</i>	Y	VU	H	4
<i>Rhinolophus hipposideros</i>	Y	VU	H	4
<i>Rhinolophus mehelyi</i>	Y	VU	H	4
<i>Myotis bechsteinii</i>	Y	VU	M	4
<i>Myotis blythii</i>			H	2
<i>Myotis brandtii</i>			M	1
<i>Myotis capaccinii</i>	Y	VU	H	4
<i>Myotis dasycneme</i>	Y	VU	M	4
<i>Myotis daubentonii</i>			M	1
<i>Myotis emarginatus</i>	Y	VU	H	4
<i>Myotis myotis</i>		LRnt	H	2
<i>Myotis mystacinus</i>			M	1
<i>Myotis nattereri</i>			M	1
<i>Myotis schaubi</i>			M	1
<i>Pipistrellus kuhlii</i>			L	1
<i>Pipistrellus nathusii</i>	Y		L	1
<i>Pipistrellus pipistrellus</i>			L	1
<i>Pipistrellus savii</i>			L	1
<i>Nyctalus lasiopterus</i>	Y	LRnt	L	4
<i>Nyctalus leisleri</i>			L	1
<i>Nyctalus noctula</i>			L	1
<i>Eptesicus bottae</i>		LRnt	L	1
<i>Eptesicus nilssonii</i>			L	1
<i>Eptesicus serotinus</i>			L	1
<i>Vespertilio murinus</i>			L	1
<i>Barbastella barbastellus</i>	Y	VU	M	4
<i>Barbastella leucomelas</i>		VU	M	1
<i>Plecotus auritus</i>			L	1
<i>Plecotus austriacus</i>			L	1
<i>Miniopterus schreibersii</i>	Y	VU	H	4
<i>Tadarida teniotis</i>	Y		L	4
<i>Otonycteris hemprichii</i>			L	1

When applying scoring systems of this type, data may be selected in two ways:

- 1 The score may be applied to the highest count of each species separately within the agreed time-frame (20 years). The maximum count of each species may have been made at a different time during this period.
- 2 The maximum combined count within the agreed time-frame may be taken and the scoring applied to each species contributing to this total.

For this project, we will apply method 1, as this may give a more accurate picture of the number of each species that use the site.

## **2.2 Single species schemes**

Single species schemes have generally been applied to a subset of species that are considered to be of particularly high conservation value. These may be species that are rare in the territory and/or for which there is an international obligation to identify and protect sites (eg EU Habitats Directive Annex II). Ranking underground habitats for single species has been applied in two ways. For species of particularly high conservation value (most commonly *Rhinolophus* species) the whole resource may be considered to be of national significance. For example, in Portugal all breeding roosts of *Rhinolophus* species are considered to be nationally important (Palmeirim & Rodrigues, 1993). Where the number of sites used by the species is large, either ranking or threshold systems have been applied to select a subset of sites as nationally important. For example, in the UK a threshold system was used to identify nationally important hibernation sites for lesser horseshoe bats (*R. hipposideros*) by selecting all sites containing 50 or more bats (Nature Conservancy Council, 1989) (see Appendix 2).

## **3 Selecting the most important sites**

As described above, the most important underground habitats in a territory may include single-species and multi-species sites, both of which make an important contribution to bat conservation. A project to identify the most important sites at both a national and European scale should thus allow for the inclusion of both types of site, though in many cases it is likely that many of the sites that are important for single species will also be important for multiple species.

For the purposes of the Eurobats project, single species sites should initially be identified for those species which have been agreed as a priority. These are: *Rhinolophus euryale*, *R. ferrumequinum*, *R. hipposideros*, *R. mehelyi*, *Myotis bechsteinii*, *M. capaccinii*, *M. emarginatus*, *M. dasycneme*, *Nyctalus lasiopterus*, *Pipistrellus nathusii*, *Barbastella barbastellus*, *Miniopterus schreibersii*, *Tadarida teniotis*.

## **4 Data requirements and use**

Data about species and numbers in underground habitats have been collected by researchers in a variety of formats and at varying intervals. For some sites (rather few) long data series are available over periods of many years, but for the majority of sites

data are fragmented and incomplete, consisting of perhaps only a few observations. If the selection of important sites is limited to only those with long runs of data it seems certain that many sites, perhaps even some of the most important, would be excluded from consideration. This suggests that ranking or selecting sites should use as much of the available information as possible and that very simple measures of value should be used. We propose, therefore, that the maximum number of individuals counted at the site within the previous 20 years is used. This simple measure has the advantage of including all sites and does not require any complex assessment of numbers. It does not, however, take into account any possible declines in numbers that may have occurred in the 20-year period and we leave it to individual countries to modify their selection if adequate data on declines are available.

## **5 How many sites in each country?**

Bats are unevenly distributed across Europe, so that a site considered nationally important by one country may be considered of only local importance in another. If all sites were ranked only at the European scale, the result would be a list of sites heavily biased towards those countries that still have the richest bat populations. Such an outcome would ignore the objective of maintaining the geographic range of species and the contribution of bats to biodiversity in each country. This would probably also exclude sites in areas where the conservation of underground sites is most urgent and the decline in bat populations has been greatest. We propose, therefore, that each country should first identify its most important underground habitats for bats and submit this list for further consideration and possible inclusion in a European list. This process is similar to the one being carried out by the EU to identify Natura 2000 sites and the Bern Convention Emerald Network proposals and we would expect many of the same sites to be selected.

Setting the number of sites for each country presents a particular challenge. A mechanistic approach could be adopted, for example identifying the 10 best sites in each category (single species, species assemblage), or the judgement about how many sites to include in the initial list could be left to each country. As there are currently few sources of information about the relative numbers of underground habitats known in each country, we suggest that it would be valuable at this stage for countries to submit more extensive lists for discussion. This would allow the development of an overview of the state of knowledge of underground sites in Europe and allow broad comparisons to be made on biogeographic grounds.

## 6 The next steps

In order to make progress, data are now required from each Party or Range State wishing to participate. For the initial stage, sites for inclusion in the draft lists should be selected at the national level.

### 6.1 Multi-species sites

Multi-species sites should be selected according to the following criteria.

Sites which are considered to be nationally-important for their bat species assemblages.

The following data are required for each site:

Name of site (or code number if the national authority considers the name to be confidential)

Location (latitude, longitude)

Type of site (cave, mine etc.)

Use by bats (all-year, maternity, hibernation, transient)

Number of species recorded since 1980

Maximum total number of bats recorded on a single survey since 1980

Maximum number of each species recorded since 1980

Whether site is protected with a grille or other means of preventing unauthorised entry

Threats to the site

### 6.2 Single species sites

Single species sites should be selected according to the following criteria:

Sites for Habitats and Species Directive Annex II species (Natura 2000 sites) should all be included.

Sites considered to be nationally-important for the following species: *Rhinolophus euryale*, *R. ferrumequinum*, *R. hipposideros*, *R. mehelyi*, *Myotis bechsteinii*, *M. capaccinii*, *M. emarginatus*, *M. dasycneme*, *Nyctalus lasiopterus*, *Pipistrellus nathusii*, *Barbastella barbastellus*, *Miniopterus schreibersii*, *Tadarida teniotis*.

The following data are required for each site:

Species

Name of site (or code number if the national authority considers the name to be confidential)

Location (latitude, longitude)

Type of site (cave, mine etc.)

Use by bats (all-year, maternity, hibernation, transient)

Maximum number of individuals of the species recorded on a single visit since 1980

Whether site is protected with a grille or other means of preventing unauthorised entry

Threats to the site

## **7 References**

Council of Europe (1997) Red Data Book of European Vertebrates. T-PVS (97) 61. 153 pp.

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## Appendix 1. Example: selection of multi-species sites for the UK

Site name	Lat	Long	Site type	Usage	Species recorded	Max count since 1980
Chilmark Stone Quarry	51.095 N	2.028 W	Mine	Hibernation	12	641
Beer Stone Quarries	50.698 N	3.111 W	Mine	Hibernation	11	109
Westbury Brook Ironstone Mine	51.846 N	2.489 W	Mine	Hibernation	8	196
West Llangynog Slate Mine	52.820 N	3.412 W	Mine	Hibernation	8	85
Agen Allwedd	51.829 N	3.179 W	Cave	Hibernation	7	303
Pixies Hole, Chudleigh	50.596 N	3.603 W	Cave	Hibernation	7	183
West Dean Tunnel	50.905 N	0.781 W	Tunnel	Hibernation	7	80
Westerham Mines	51.254 N	0.082 E	Mine	Hibernation	7	52
Singleton Tunnel	50.925 N	0.759 W	Tunnel	Hibernation	6	237
Garth-Eryr Mine	52.803 N	3.238 W	Mine	Hibernation	6	200
Westhumble Chalk Mine	51.256 N	0.346 W	Mine	Hibernation	6	85
Box Mine	51.416 N	2.244 W	Mine	Hibernation	5	255
Alltymain	52.726 N	3.227 W	Mine	Hibernation	5	241
Wigpool Iron Mine	51.872 N	2.498 W	Mine	Hibernation	5	130
Brown's Folly Mine	51.394 N	2.296 W	Mine	Hibernation	5	130
Winsley Sewage Works	51.344 N	2.295 W	Mine	Hibernation	5	101
Combe Mine, Bradford	51.355 N	2.247 W	Mine	Hibernation	5	84
Carew Castle	51.707 N	4.828 W	Fortification	Hibernation	5	70
Rock House Cave	50.486 N	3.772 W	Cave	Hibernation	4	435
Old Bow	51.777 N	2.610 W	Mine	Hibernation	4	237
Doune Castle	56.185 N	4.097 W	Fortification	Hibernation	4	200
The Glen	52.247 N	0.730 E	Mine	Hibernation	4	131
Colwall Tunnel	52.035 N	2.348 W	Tunnel	Hibernation	4	122
Boulton's Rift	50.597 N	3.603 W	Cave	Hibernation	4	100
Buckshaft Ironstone Mine	51.806 N	2.500 W	Mine	Hibernation	4	89
Hangmans Wood Deneholes	51.489 N	0.349 E	Mine	Hibernation	4	85
The Cavern, Berry Head	50.399 N	3.490 W	Cave	Hibernation	4	76
Shaft Mine	51.357 N	2.334 W	Mine	Hibernation	4	60
Ogof Cynnes	51.830 N	3.248 W	Cave	Hibernation	4	50
Carisbrooke Castle	50.687 N	1.310 W	Fortification	Hibernation	4	50
Greywell Tunnel	51.256 N	0.970 W	Tunnel	Hibernation	3	555
Little Blakenham Pits	52.095 N	1.095 E	Mine	Hibernation	3	370
Horringer Court Caves	52.232 N	0.690 E	Mine	Hibernation	3	361
Bulkamore Iron Mine	50.453 N	3.762 W	Mine	Hibernation	3	223
Penygarnedd Phosphate Mine	52.803 N	3.321 W	Mine	Hibernation	3	145
Reed's Cave	50.484 N	3.772 W	Cave	Hibernation	2	224
Rift Cave	50.483 N	3.771 W	Cave	Hibernation	2	160
Downton Castle	52.365 N	2.812 W	Fortification	Hibernation	2	150

**Appendix 2. Example: selection of *Rhinolophus hipposideros* sites for the UK**

<b>Site name</b>	<b>Lat</b>	<b>Long</b>	<b>Site type</b>	<b>Usage</b>	<b>Max count since 1980</b>
Buckland Ice House	51.884 N	3.259 W	Ice-house	All year	393
Agen Allwedd	51.829 N	3.179 W	Cave	Hibernation	303
Alltymain	52.726 N	3.227 W	Mine	Hibernation	239
Old Bow	51.777 N	2.610 W	Mine	Hibernation	232
Garth-Eryr Mine	52.803 N	3.238 W	Mine	Hibernation	200
Westbury Brook Ironstone Mine	51.846 N	2.489 W	Mine	Hibernation	189
Downton Castle	52.365 N	2.812 W	Fortification	All year	150
Penygarnedd Phosphate Mine	52.803 N	3.321 W	Mine	Hibernation	144
Cave near Black Rock	50.552 N	3.880 W	Cave	All year	135
Wigpool Iron Mine	51.872 N	2.498 W	Mine	Hibernation	122
Colwall Tunnel	52.35 N	2.348 W	Tunnel	Hibernation	122
Castell Cawr Caves	53.275 N	3.597 W	Cave	Hibernation	95
Chilmark Stone Quarry	51.095 N	2.028 W	Mine	Hibernation	93
Swan Hill Mine	52.802 N	3.055 W	Mine	Hibernation	93
West Llangynog Slate Mine	52.820 N	3.412 W	Mine	Hibernation	83
Coed y Cerrig Caves	51.889 N	3.87 W	Cave	Hibernation	80
Quarry Hill Shaft	51.750 N	1.859 W	Mine	Hibernation	75
Beer Stone Quarries	50.698 N	3.111 W	Mine	Hibernation	72
Talyllyn Tunnel	51.939 N	3.307 W	Tunnel	Hibernation	61
Cae Gwyn	53.240 N	3.371 W	Cave	Hibernation	59
Pencelli Limekiln	51.919 N	3.320 W	Kiln	Hibernation	58
Llanfrynach Sluice	51.921 N	3.351 W	Tunnel	Hibernation	58



## 5<sup>th</sup> Meeting of the Advisory Committee

Zagreb, Croatia, 21 – 23 February 2000

Bat Species occurring in Europe as defined in Resolution No. 5  
of the 2<sup>nd</sup> Session of the Meeting of Parties

### **Emballonuridae**

*Taphozous nudiventris*

### **Molossidae**

*Tadarida teniotis*

### **Pteropodidae**

*Rousettus egyptiacus*

### **Rhinolophidae**

*Rhinolophus blasii*

*Rhinolophus euryale*

*Rhinolophus ferrumequinum*

*Rhinolophus hipposideros*

*Rhinolophus mehelyi*

### **Vespertilionidae**

*Barbastella barbastellus*

*Barbastella leucomelas*

*Eptesicus bottae*

*Eptesicus nilssonii*

*Eptesicus serotinus*

*Myotis bechsteinii*

*Myotis blythii*

*Myotis brandtii*

*Myotis capaccinii*

*Myotis dasycneme*

*Myotis daubentonii*

*Myotis emarginatus*

*Myotis myotis*

*Myotis mystacinus*

*Myotis nattereri*

*Myotis schaubi*

*Nyctalus lasiopterus*

*Nyctalus leisleri*

*Nyctalus noctula*

*Otonycteris hemprichii*

*Pipistrellus kuhlii*

*Pipistrellus nathusii*

*Pipistrellus pipistrellus*

*(Pipistrellus pygmaeus)*

*Pipistrellus savii*

*Plecotus auritus*

*Plecotus austriacus*

*Vespertilio murinus*

*Miniopterus schreibersii*