

AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE
REPORT ON IMPLEMENTATION OF THE AGREEMENT IN PORTUGAL
- 1995 -

A. General Information

- ♦ *Name of Party:* Portugal
- ♦ *Date of Report:* 29 December 1995
- ♦ *Period Covered:* until December 1995
- ♦ *Competent Authority:* Instituto da Conservação da Natureza

B. Status of Bats Within the Territory of the Party

1. Summary details of Resident Species

24 species are known in Continental Portugal, 2 species in the Azores Islands, and 5 species in the Madeira Islands (Table 1).

The presence of *Pipistrellus nathusii* in the continent was reported in 1910, but there are no recent reports for this species. *Myotis mystacinus* does not have any status in the Table 1, because when the Portuguese Red Data Book was prepared its presence in the country was still not confirmed. However, in 1994 we found one breeding colony in the North of Portugal. In the Azores, there are no confirmed reports of living animals of *Myotis myotis* (but 2 skulls were found in a cave). The presence of *Tadarida teniotis* and *Hypsugo savii* in Madeira has been reported, but needs to be confirmed.

2. Status and Trends

Table 1 shows the status and the apparent population trends of the species known in Portugal.

Table 1 - Status and apparent population trends of the species known in Portugal. Status: E (endangered), V (vulnerable), R (rare), I (indeterminate), K (insufficiently known), and NT (not threatened). Apparent trend: Inc. (increasing), Sta. (stable), Dec. (declining), P.Dec. (probably declining), and Unk. (unknown). Data published in the Portuguese Red Data Book (1990).

Species	Status Continent	Ap. Trend Continent	Status Azores	Ap. Trend Azores	Status Madeira	Ap. Trend Madeira
<i>R. ferrumequinum</i>	E	Dec				
<i>R. hipposideros</i>	E	Dec				
<i>R. euryale</i>	E	Dec				

<i>R. mehelyi</i>	E	Dec				
<i>M. mystacinus</i>	?					
<i>M. emarginatus</i>	E	P.Dec				
<i>M. nattereri</i>	E	Dec				
<i>M. bechsteinii</i>	E	P.Dec				
<i>M. myotis</i>	E	Dec	K	Unk		
<i>M. blythii</i>	E	Dec				
<i>M. daubentonii</i>	NT					
<i>P. pipistrellus</i>	NT					
<i>P. nathusii</i>	?					
<i>P. kuhli</i>	NT					
<i>P. maderensis</i>					K	Unk
<i>H. savii</i>	K	Unk			?	
<i>N. leisleri leisleri</i>	V	Unk				
<i>N. leisleri verrucosus</i>					I	Unk
<i>N. azoreum</i>			R	Unk		
<i>N. noctula</i>	I	Unk				
<i>N. lasiopterus</i>	I	Unk				
<i>E. serotinus</i>	NT					
<i>B. barbastella</i>	I	Unk				
<i>P. auritus</i>	I	Unk				
<i>P. austriacus</i>	NT				I	Unk
<i>M. schreibersii</i>	V	Dec				
<i>T. teniotis</i>	R	Unk			?	

3. Habitats and Roost Sites

In Portugal there are many habitats that can be used by bats. We have extensive limestone zones, with many caves, that are used by cave-dwelling species both in the winter and during the breeding season. In the last decades, with the declining of the mining activities, new potential roosts became available and are now occupied. As an example, 2 of the 8 known breeding colonies of *Miniopterus schreibersii* are located in mines.

4. Threats

The major threats that occur in Portugal are:

- Disturbance

In the last years there has been an increase in the number of people involved in outdoor activities, including caving, and we often find signs of the recent presence of visitors inside the caves. The disturbance is particularly bad during the hibernation and breeding seasons. In some caves we even found signs of fires and shotgun cartridges.

- Roost destruction

Shepherds often blocked the entrance of vertical caves to keep their animals from falling in them. There are no data on the numbers of holes closed for this reason, but the practice does not seem to continue. 15 years ago one cave that sheltered *Rhinolophus ferrumequinum* was filled with land because it was too close to a new road. In accordance with Portuguese law the entrances of inactive mine galleries are often closed with walls, but mines abandoned a long time ago have open entrances. Efforts are being made to keep the mining authorities to block entrances of galleries used by bats.

- Loss of feeding areas

Portugal's landscape is changing, due to the integration in EU. The traditional land use practices (low intensity grazing, large areas of holm oak "montados", and little use of pesticides) were overall, better for the bats. The newest CAP encourages a declining in pesticides use, so it may have halted this negative trend (but there are no data on this issue).

Clearing of riparian vegetation is still a common practice.

- Pesticides

Some forbidden pesticides are still in use, with obvious consequences for bats (see also point 13).

5. Data Collection

There are some datasets prepared by "Instituto da Conservação da Natureza" and "Faculdade de Ciências de Lisboa": (a) Bat observations (based on bibliography, information and field work), (b) Roosts monitoring programme, and (c) Banding (captures and recaptures).

C. Measures Taken to Implement Article III of the Agreement

6. Legal measures taken to prevent the deliberate capture, keeping or killing bats, including details of enforcement actions used to support such measures

All bat species are protected in Portugal by Portuguese law since 1967. But there is no specific legislation directed to the protection of caves, except Bern Convention. The Instituto da Conservação da Natureza is preparing legislation to protect caves and mines that harbour important bat populations. Portugal is also bound by the provisions of Directive 92/43/EEC (the Habitats directive).

7. Sites identified and protected which are important to the conservation of bats

There is an ongoing survey of roosts of cave dwelling and non cave dwelling bat species. The survey of the underground roosts is already quite complete, but the roosts of the remaining species are poorly known. The efforts to locate important roosts of non cave dwelling bats are concentrated in the protected areas.

Portugal is now selecting the sites to be included in Natura 2000; it was suggested that those sites would include the most important roosts of cave dwelling species.

8. Consideration given to habitats which are important to bats

Very little is known about feeding habitat use by bats in Portugal, and there is research being done in this area (see point 12). Nowhere in Portugal is the landscape managed specifically to protect bat feeding habitats. However, since some of the main roosts known are inside natural parks it is hoped that the general rules to protect the landscapes in these areas will, in general, also benefit bats.

9. Activities carried out to promote the awareness of the importance of the conservation of bats

We prepared some educational materials (leaflet, poster, and stickers) to increase awareness of bat issues. We wrote several papers in environmental magazines. Talks have been given in meetings of spelunkers and in schools.

10. Responsible bodies, in accordance with Article III.5 of the Agreement, nominated for the provision of advice on bat conservation and management

Ratification has been very recent, so no decision have been taken on this issue.

11. *Additional action undertaken to safeguard populations of bats*

See points 12 and 13.

12. *Recent ongoing programmes (including research) relating to the conservation and management of bats*

There are several programmes:

- Survey of roosts of cave dwelling and non cave dwelling bat species (see point 7).
- Some of the most important underground roosts in Portugal are very accessible to people. Since disturbance may be very damaging to the bat populations we are now trying to evaluate the amount of disturbance of these roosts using dataloggers that record the number of visits. The objectives of this study are the identification of the roosts that need to be subjected to measures to discourage potential visitors, such as fences or gates, and the evaluation of the amount of disturbance that is tolerated by the bats.
- The use of gates to keep visitors out of bat roosts is a common measure taken to protect them. However, there is evidence that, in certain circumstances the gates may actually be very harmful to some colonies. A study is being carried out to determine the influence of the gates on the behaviour of various bat species in an attempt to identify the roosts where gates can be applied successfully.
- A monitoring programme of the cave dwelling species is in progress since 1987. This programme involve the estimation of bat numbers present in the most important wintering and parturition roosts. The surveys are carried out annually in most of the roosts.
- Since most of the endangered bat species of our fauna are cave bats and these are concentrated in a relatively small number of roosts, we are carrying out a study aimed at the identification of the most important feeding areas around these roosts. This is being done using radio tracking and transects with bat detectors. These studies are, for the moment, limited to a few species.
- Natural parks are the areas where land use practices are more closely monitored and where there are better chances of doing habitat management to improve the quality of habitats for bats. Therefore, in some of these protected areas, a study is being carried out to identify the habitats that are most used by bats during their feeding flights. The data are being collected with bat detectors, along transects that include the most important habitats of each park.
- Study of the amounts of pesticides accumulated in the guano of the most important roosts (see point 13).

13. *Consideration being given to the potential effects of pesticides on bats, and efforts to replace timber treatment chemicals which are highly toxic to bats*

In 1993 there was found a colony of *Miniopterus schreibersii* which had lost most, if not all, the young of the year due to pesticide poisoning. So, we started a project aimed at evaluating the overall impact of pesticides in the bat populations. To do this, bats found dead are being analysed to measure the amount of various pesticides accumulated in the carcasses. A comparative study of the amounts of pesticides accumulated in the guano of the most important roosts is also being carried out.

D. Functioning of the Agreement

Cooperation with other Range States

None.