

# AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE

## Report on the implementation of the Agreement in Azerbaijan Republic

### 1. General information

Non-Party Range: Azerbaijan Republic

Date of Report: April 2000

Period Covered: 1966-2000

Competent Authority: Institute of Zoology Azerbaijan Academy of Sciences

### 2. Data about individual species

The presence of twenty-six bat species has been recorded in the territory of Azerbaijan. As it is seen from the Table, out of them nine species have wide distribution and seventeen ones have restricted areas. Only on the territory of the Lesser Caucasus *R.euryale*, *M.schreibersii*, and *T.teniotis* were revealed. Also mainly in this region *R.blasii*, *R.mehelyi*, *B.leucomelas*, *H.savii* were found. *M.bechsteini*, *P.austriacus*, *N.leisleri* have been recorded only once in the Greater Caucasus (accordingly in 1986-1988, 1981, 1939). *E.nilssonii* was found only once in Lencoran Lowland at the end of the XIX Century. *T.teniotis* was revealed in 1938-1939.

*P.nathusii* mostly has been recorded during a migration period (both in spring and autumn) on the eastern part of Azerbaijan.

Out of nine widely distributed species five are common (*R.hipposideros*, *R.ferrumequinum*, *M.blythii*, *M.mystacinus*, *E.serotinus*), two are numerous (*P.pipistrellus*, *P.kuhlii*), two are rare (*P.auritus*, *H.savii*).

By the international Union for Conservation of Nature and Natural Resources (IUCN) Category of Threat there are 20 species with lower Risk and 6 Vulnerable species in Azerbaijan.

According to our long investigations, the trend is stable for 6 species (*R.hipposideros*, *R.ferrumequinum*, *M.blythii*, *M.schreibersii*, *H.savii*, *E.serotinus*). It declines among 8 species (*R.blasii*, *R.euryale*, *R.mehelyi*, *M.nattereri*, *M.emarginatus*, *M.mystacinus*, *N.noctula*, *P.nathusii*). This sign is not clear for 10 very rare species (*M.bechsteini*, *P.auritus*, *P.austriacus*, *B/barbastellus*, *N.leisleri*, *V.murinus*, *E.nilssonii*, *E.bottae*, *T.teniotis*).

Two species – *P.pipistrellus* and *P.kuhlii* are numerous. Both of them, being synantropic species, are most abundant in the human settlements, the former mainly in mountain regions and the latter – in arid areas. Population density of these pipistrelle bats in Azerbaijan consists about 5 individuals/ha, being highest in the Lencoran Region (8-10 ind/ha in June 1999). *E.serotinus* is another abundant species in towns and villages (0.5-1 ind/ha).

As it is shown in the Table, summer roosts are most various (different natural and artificial underground spaces, man-made buildings) in *R.hipposideros*, *R.ferrumequinum*, *M.blythii*, *M.emarginatus*. Shelters of *M.nattereri*, *M.mystacinus*, *B.barbastellus*, *H.savii* are mainly connected with rock and house fissures, lesser – with attics and crypts. *N.noctula*, *P.pipistrellus*, *P.nathusii* were revealed both within buildings and tree cavities. *R.blasii*, *R.euryale*, *R.mehelyi*, *M.schreibersii*, *B.leucomelas* are cave-dwelling bats.

**Habitats** of various types are characteristic for the widespread species (*R.hipposideros*, *R.ferrumequinum*, *M.blythii*, *M.emarginatus*, *M.mystacinus*, *P.auritus*, *P.pipistrellus*, *P.kuhlii*,

H.savii, E.serotinus). Predominantly mountain areas (steppes and forests) are inhabited by R.blasii, R.euryale, R.mehelyi, M.nattereri, M.schreibersi, P.auritus ). N.noctula and majority B.barbastella were revealed in lowland and mountain forests and in human settlements attached to these landscapes. B.leucomelas and E.bottae are met in arid habitats (semi-desert, foothill and mountain steppes or mountain xerophytes).

#### **Threats:**

- roost lost (destruction of ancient buildings, restoration of houses, renovating of lofts, removal of woods and hollow trees);
- disturbance in underground shelters;
- use of toxic chemicals (both in industrial towns and in agriculture), although this process have been reduced during the last decade due to economic situation.

**Data collection** are very embarrassed from 1990 due to economical situation in Azerbaijan. Only two mammologists of the Zoology Institute of Azerbaijan Academy of Sciences continue this investigation.

#### **Research**

A lot of research activities carried out during the previous years (1966-1990). During last years we study the bat fauna of the Apsheron Peninsula and Gobustan (eastern part of Azerbaijan). Altogether 13 species were registered there. We pay especial attention to rock-dwelling bats of the Gobustan and particularly – to E.bottae. This species inhabits rock fissures and forms breeding colonies, including 15-20 adult females. Among bats of this territory only P.kuhlii is common (Gobustan) and numerous (Absheron)

In June 1999 we had a short expedition to the Lencoran Lowland. The observation showed the big increase of P.pipistrellus in human settlements attached to forested landscape. Their separate aggregations in attics included hundreds and thousands individuals. The such situation was with the P.kuhlii in semi-deserts. Unfortunately, we did not find there the big breeding colony of M.emarginatus (1500-2000 adult females) because the repair of the attic, where they lived, and by covering of a gable window, through which they flew.

We can not keep under constant observation many caves and attics inhabited by bats due to social and economic situation in Azerbaijan. Our group prepared the project on the study of the current status and migratory routs of bats along the western coast of the Caspian Sea and conservation of chiropterafauna diversity. We hope that realization of this project will be possible with the help of EUROBATS. We ready for cooperation with other Range States, especially the Russian Federation.

#### **Legislation**

Only three species (R.blasii, M.schreibersi, T.teniotis) were included in the Red Book of Azerbaijan with the status of rare for the first and third ones and as vulnerable for the second one. There are the low on 'Animal World' forbids the catching and killing of all animals, including bats in the Republic. The Convention of Biological Diversity was ratified this year.

#### **Ratification**

Joining to the Agreement is impossible for the nearest years because of hard economic and social situation in Azerbaijan (near 20% of the territory is occupied by Armenia, including a lot of caves with big bat colonies). However, chiropterologists and State Committee on Ecology and Environmental Protection realize the importance of bat conservation.

### **International co-operation**

Scientific connection with Georgian, Russian, Ukrain and European bat researches. Now we prepare to the `Bat detector workshop` in Georgia in 11-14 May 2000.

### **Publication**

A book about all vertebrate animals of Azerbaijan, including bats, was published in 2000 (in Russian). The monograph `Bats of the Eastern Transcaucasia (Fauna, Ecology, Zoogeography)` is prepared for edition (in English).

Several articles have been published in various newspapers and Symposiums.

IrinaK.Rakhmatulina.

Institute of Zoology Azerbaijan Academy of Sciences.