

AGREEMENT ON THE CONSERVATION OF BATS IN EUROPE
Report on the implementation of the Agreement in Azerbaijan Republic

A. General Information

Non-Party Range: Azerbaijan Republic
Date of Report: February 2010
Period Covered: 2009
Competent Authority: Institute of Zoology Azerbaijan National Academy of Sciences, NGO "Mammalogists of Azerbaijan" – Prof. Rakhmatulina Irina.

B. Status of Bats within the Territory of Azerbaijan

1. *Summary Details of Resident Species*

29 bat species occur on the territory of Azerbaijan. Among them *Myotis bechsteinii*, *M. brandti*, *M. daubentonii*, *Nyctalus leisleri*, *Plecotus macrobullaris*, *Eptesicus nilssonii* have been recorded only once.

14 species considered as regularly breeding bats. There are both the migrant populations of *Nyctalus noctula* (in the eastern part of the country) and sedentary ones (other territory) in Azerbaijan. *Pipistrellus nathusii* is migrating species according to some signs (findings only from autumn to spring and only males – in the worm period).

10 bat species were revealed on all territory. Of them *Pipistrellus pygmaeus* and *P.kuhlii* are numerous, *Rhinolophus hipposideros*, *R.ferrumequinum*, *Myotis blythii*, *M.mystacinus*, *P.pipistrellus*, *Eptesicus serotinus* are common, *Plecotus auritus* and *Hypsugo savii* are rare. 17 species have restricted areas.

2. *Status and Trends*

According to the International Union for Conservation of Nature and Natural Resources (IUCN) Category of Threat there are 21 species with lower risk and 7 vulnerable ones (*Rhinolophus hipposideros*, *R.euryale*, *R.mehelyi*, *M.bechsteinii*, *M.emarginatus*, *Barbastella barbastellus*, *B.leucomelas*) in Azerbaijan. The trends are stable for 5 species (*R.ferrumequinum*, *M.blythii*, *Miniopterus schreibersii*, *Hypsugo savii*, *E.serotinus*). 3 species (*P.pipistrellus*, *P.pygmaeus* and *P.kuhlii*) increase their number and they are abundant in the anthropogenic landscapes. The two former is numerous in mountain regions and the latter - in arid areas.

3. *Habitats and Roost Sites*

Various habitat types are characteristic for such widespread species as *R.hipposideros*, *R.ferrumequinum*, *M.blythii*, *M.emarginatus*, *M.mystacinus*, *Pl.auritus*, *P.pipistrellus*, *P.pygmaeus*, *P.kuhlii*, *H.savii*, *E.serotinus*. Mainly mountain steppes and forests are inhabited by *R.blasii*, *R.euryale*, *R.mehelyi*, *M.nattereri*, *M.schreibersii*, *P.auritus*. *N.noctula* and majority *B.barbastellus* 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).

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. *N.noctula*, *P.pipistrellus*, *P.pygmaeus*, *P.nathusii* were found both within buildings and tree cavities. *R.blasii*, *R.euryale*, *R.mehelyi*, *M.schreibersii*, *B.leucomelas* are cave-dwelling bats.

4. Threats

Tree-dwelling bats are in the hard conditions because their roosts disappear together with woods. Till now we have no information about some bats (*R.mehelyi*, *R.hipposideros*, *F.ferrumequinum*, *M.blythii*, *M.schreibersii*) of such big caves, as Azykh, Shusha, Kilit due to occupation of their territory by Armenia.

5. Data Collection, analysis, interpretation, and dissemination

During last years Azerbaijan chiropterologists study the bat fauna of the southern slopes of the Greater Caucasus. Especial attention was devoted to the inhabitants of the ancient caves in bozdags ("grey mountains"). 8 bat species were found there and we established that *Eptesicus bottae* dominated among them. The female number in breeding colonies of this species was about 30 individuals. *P.kuhlii* dominated on the all studied territory.

C. Measures Taken to Implement Article III of the Agreement

6. Legal measures taken to protect bats, including enforcement action

The Bat Agreement passes all necessary stages in the Foreign Ministry. Specific state measures were aimed at bat protection in Nakhichevan AR.

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

One site is identified as an important for bats conservation. It is the Beyuk and Kichik Dash mountains in the Gobustan Hystorical-Architectonic Reserve. 2 caves of the Nakhichevan AR (Bilav cave "Yarasa yuvasy" of the Ordubad National Park and Sirab cave "Dash alty" of the Babek region) have been recommended to protect as the Nature memorials.

8. Considerations given to habitats which are important to bats

In connection with the future second edition of the Red book of Azerbaijan most important bat habitats are recommended for the protection. 10 bat species (*Rhinolophus ferrumequinum*, *R.euryale*, *R.hipposideros*, *R.mehelyi*, *Myotis blythii*, *M.emarginatus*, *M.bechsteinii*, *Barbastella leucomelas*, *Miniopterus schreibersii*, *Tadarida teniotis*) will be included in this book.

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

- Seminars in schools, for journalists, and workers of reserves.

- Posters «European Bat Night», about red-book and rare mammals (including bats), the popular book “Flying mammals of Azerbaijan ” have been distributed in various regions of Azerbaijan.
- Observations of bats are conducted in the frame of the European Bat Night.

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

The National Biodiversity Strategy and Action Plan contain strategic action for conservation of bat species.

12. *Recent and ongoing programs (including research and policy initiatives) relating to the conservation and management of bats. In the case of research, summaries of completed projects should be provided, giving references where possible and acknowledging the sources of finding*

The National Action Plan for the protection of 11 bat species (*Rhinolophus ferrumequinum*, *R.euryale*, *R.hipposideros*, *R.mehelyi*, *Myotis blythii*, *M.emarginatus*, *M.bechsteinii*, *Barbastella barbastellus*, *B. leucomelas*, *Miniopterus schreibersii*, *Tadarida teniotis*) and their main habitats presented in different government and nongovernment organizations.

Since 2008 the Azerbaijan-USA project “Identification of taxonomic status of some doubtful mammal species of Azerbaijan” is realized. The special attention devotes to the status of the *Myotis mystacinus* complex in Azerbaijan. The systematical study of the whiskered bats makes using morphological, kariological and molecular methods, which allow us to identify species, their distribution and phylogenetic relationships.

13. *Considerations begin given to the potential effects of pesticides on bats, and their food sources and efforts to replace timber treatment chemical, which are highly toxic to bats*

No considerations are given.

D. Functioning of the Agreement

14. *Cooperation with other Range States*

Scientific connections are regular with Georgian, Ukraine, Russian, and European bat researches. We are ready for any cooperation with all chiropterologists.

Publications

Rakhmatulina I.K., Hasanov N.A. 2009. Bat fauna (Mammalia, Chiroptera) of Nakhichevan Autonomic Republic and problems of its preservation // News of Nakh. Section of Azerbaijan NAS, N 2: 194-205.

Abdurakhmanova N. 2009. National, regional and global status of the Caucasian bats (Chiroptera) according IUCN categories // Proceedings of the Baki State University: 338-339.

Rakhmatulina I.K. 2009. Biological diversity and program of the faunistic monitoring // Proceedings of the Baki State University: 399-400.

Rakhmatulina I.K., E.Askerov. State of mammals (Mammalia) in Azerbaijan and problems of their protection under current conditions // The international internet conf. "Critical ecoregions: Modern conditions, problems and ways of their decisions". Tbilisi, 2009: 76-82.