

Bats in Danger

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The need to protect bats is becoming urgent. Last March, immediately before the 2nd International Bat Research Conference in Amsterdam, some 60 bat experts representing 20 countries discussed the situation and agreed that almost all bat species in temperate climates have decreased. In the Netherlands, Belgium, West Germany, Czechoslovakia, Sweden, France, Britain, Italy, Yugoslavia, USA and Canada some species have declined considerably; in several areas some have disappeared completely, and a few, especially in the USA, are very close to extinction. Active management in certain roosts in the Netherlands and Czechoslovakia has resulted in a few small increases in populations, but such instances are rare and isolated. Tropical species are not thought to be endangered yet, although some highly indiscriminate methods are being used to destroy species such as vampire bats that are rabies carriers, as was reported in *ORYX* in May 1968 (page 248); whole cave systems are being destroyed with dynamite in an effort to exterminate vampire bats, often caves where no such species are present.

The scientists agreed that the main causes for the decline in bat populations were:

1. Loss of roosts. Old buildings are being demolished, roofs repaired and renewed, old deciduous trees felled (often replaced by conifers), caves and quarries closed by infilling or commercial exploitation, and many caves used by mushroom growers.
2. Loss of habitat. With urbanisation and farm improvement, waste land is decreasing and flying insects reduced: e.g. at Rothamsted after the last war it was found that the mean number of flying insects had declined by about 50 per cent in about 15 years.
3. Pollution by chemicals
 - a. The use of insecticides on farms and forests has caused large decreases in bats, notably in south-west USA; this has probably happened also in Britain.
 - b. Fumigation and treatment of buildings against wood-boring insects kills bats; whole regional populations are sometimes found in one roof.
 - c. Anti-bat fumigation is increasing.
4. Disturbance and killing for 'scientific' studies.
 - a. Speleologists disturb hibernating cave bats in all countries.
 - b. In many countries children deliberately search for and kill bats in caves.
 - c. Biological supply companies collect specimens for sale to museums and schools as 'wet' specimens, or skeletons or mounted in resins.
 - d. Research: banding (ringing) and disturbance by field researchers can cause deaths, and very large numbers of bats are used for medical and pure research, leading to an international traffic in bats. Bats from Britain are sold or exchanged to foreign workers.

Conservation Proposals

Loss of habitat is of greatest importance, but the following conservation proposals, if acted on, would reduce the decline in bats:

1. Legislation to prevent
 - a. Casual destruction of bats by unlicensed operators;
 - b. Uncontrolled ringing or banding;
 - c. Taking of bats for scientific purposes without licence;
 - d. Use of insecticides and other poisons against bats (repellents should be used).
2. A closed season for speleologists in certain cave systems with the provision of gates and grilles over entrances.
3. Prohibition on the use of caves and tunnels for refuse disposal.
4. Provision of bat boxes by forest services, such as the Forestry Commission in Britain, in lieu of hollow trees. This is already done in many European countries, including USSR, Czechoslovakia, Poland, West Germany and East Germany, and officers make, maintain and record the contents of the boxes.

Because many bat species are migratory, conservation measures must be international. The 100 scientists attending the Amsterdam conference agreed the following resolution, which was sent to IUCN and all governments:

Bats are world wide and important in our ecosystem and to the human economy. Delegates representing 20 nations stated that bats are declining, especially in highly urbanised areas.

The main causes are: pollution by insecticides, loss of habitat, killing of bats by man.

Certain countries have recognized the importance of conserving bats and have legislation protecting them.*

Since bats migrate internationally the conference recommends that other countries should provide legislation to protect these mammals.

Additionally it was agreed that further investigations in bat ecology are essential for conservation, and that any necessary control of local populations should be done by qualified persons.

*See page 329; also USA (Texas, Arizona, and others).

Reserves in the Falklands

Two islands with large sea bird colonies in the Falklands—Steeple and Grand Jason—have been bought by Mr L. Hill, of Bourton-on-the-Water, to be maintained as wildlife reserves under the care of Ian Strange, WWF representative in the islands.

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of geological, ethnological and historical interest, and the wide spectrum of wildlife and habitat formerly naturally occurring in the western areas of Rhodesia, *the interests of the wildlife and habitat to remain paramount* (italics mine).

From this policy statement, detailed plans for the management of wildlife populations, fire and range, and tourism—in addition to water plans as described above—have been drawn up.'