



Guidelines on

Invertebrate Trapping for Bat Rehabilitation

The Bat Conservation Trust (BCT) was approached by bat rehabilitators for a view on feeding trapped, wild invertebrates to bats undergoing rehabilitation, pending the release of those bats into the wild. In response, BCT has developed the following guidelines, in consultation with Natural England, the Countryside Council for Wales (CCW), the Joint Nature Conservation Committee (JNCC), local bat group members, Butterfly Conservation, Buglife and the Amateur Entomological Society.

- BCT advises against the indiscriminate trapping of wild invertebrates for bat rehabilitation.
- Native, captive-bred species should be used where possible, and steps should be taken to prevent individuals from escaping into the wild. Non-native species should not be used, because these could disturb local wild populations of insects if they were to inadvertently escape. (Native species are available commercially. If fed sugared water or kept in a fridge until required, they should survive for several weeks as adults.)
- In exceptional situations, where experienced bat carers feel that the use of captive-bred insects is not feasible, carers should seek the advice of national or local invertebrate conservation groups and/or local invertebrate recorders, regarding whether limited trapping of wild invertebrates would be appropriate for that specific locality; that is, ensuring that it would have minimum impact upon the local populations of moths and other invertebrate groups.
- If, as a result of consultation with invertebrate conservation groups and/or invertebrate recorders, trapping appears feasible, further advice should be sought on methodology. For example, on the positioning of the flight cage, the type of bulb used and the timing of trapping.
- Bat carers should also seek to have an experienced entomologist present during any trapping that takes place. This is to ensure that, should they be caught, any scarce, rare, nationally threatened and/or locally threatened species are correctly identified and released into the wild, unharmed.

Arguments taken into consideration by BCT during the development of these guidelines are provided in Appendix I.

Appendix I

The main arguments presented for and against the trapping of invertebrates for bat rehabilitation are provided below.

Arguments for the trapping of invertebrates for bat rehabilitation:

- Baby bats in particular would not have the necessary skills to survive in the wild if they had not encountered live and flying insects. Recent studies on post release survival have begun to provide evidence for this.
- One local bat group estimated that 60-70% of bats in their care are released back into the wild following rehabilitation. In the long term, it is believed that these bats make a difference to the overall bat population.
- Although attracting wild insects to a flight cage cannot completely replicate natural feeding conditions, it is the nearest alternative; it samples the bats natural feeding ecosystem in a way that captive-bred food cannot.
- One local bat group purchased fruit flies with the intention of feeding them to rehabilitating bats. However, these turned out to be of no use because they had been bred to be non-flyers. The same group also tried breeding flies by allowing wild insects to lay eggs on fruit/water buckets and this was reasonably successful but took a great deal of time and space.
- Several bat workers felt that the numbers trapped are so small, that the impact on populations must be negligible. It has been argued, for example, that trapping invertebrates for bat rehabilitation is little more damaging than driving cars at night.
- Wild caught insects are essential only for a short period when hand reared baby bats have acquired good flight and echolocation skills and need to have experience of selecting and catching insects on the wing.
- If the captive bats were living outside after release they'd be eating wild insects, possibly rare or scarce species. So overall there would be no additional net reduction in insects caught. There is no suggestion that captive bats should not be released in those areas where rare insects are recorded. Only a small proportion of any insect catch will be appropriate food for the species of bats in the cage.

Arguments against trapping of invertebrates for bat rehabilitation:

- The perception of feeding wild caught invertebrates to rehabilitated bats is very negative and potentially will cause serious rifts between bat-lovers and moth-lovers at a time when we should all be working together to improve the prospects for both these night-flying groups.

- A revised Code of Conduct for Collecting Insects and Other Invertebrates was published by the British Entomological & Natural History Society in 2002. The following provisions of the Code are particularly pertinent to this debate:

2.1 Individuals of readily identified species, particularly butterflies, should not be killed, nor removed from the wild, unless required as voucher specimens or for scientific or educational study. If they are not needed for such purposes, they should be examined while alive and then released near the place of capture.

3.3 Unwanted invertebrates should not be fed to fish, birds or other animals.

- Bat carers could potentially be trapping scarce, threatened or possibly even protected species to feed to bats - this would obviously reflect badly on the Bat Groups and perhaps BCT.
- Invertebrates should not be considered as being available in the environment in unlimited quantities. We know from the 35 year Rothamstead study of Britain's larger moth species that the total number of moths recorded in Rothamstead trap samples decreased by almost a third between 1968 and 2003. Population trends were generated for 337 species. Two thirds of these (226 species) showed decreasing population trends over the 37 year study. Of these - half were in steep decline. This represents catastrophic decline in terms of biomass and biodiversity. Other groups of invertebrates may also have declined significantly over a similar period.
- Some invertebrate specialists felt that some of the declines seen in invertebrates at a local level may be caused by the indiscriminate placing of artificial nest sites for insectivorous animals (eg bats and birds) without provision of the additional invertebrate habitat needed to support the resultant increased demand for insect food.
- Several entomologists stated that inexperienced trappers cannot distinguish between rare/protected species and common species. ID of moths, for example, is very difficult, and even entomologists have problems. It can take many years of experience to sort out common from rarer species.
- Damage to invertebrate populations by trapping them to feed to rehab bats may compromise the well-being of healthy wild bats by depriving them of food items. (The long-term survival prospects of the latter may well be higher than that of rehab bats - even of those given experience at catching flying insects in flight cages prior to release, so this is a matter for concern.)
- Some people felt that the idea of feeding one rare species to another is immoral.