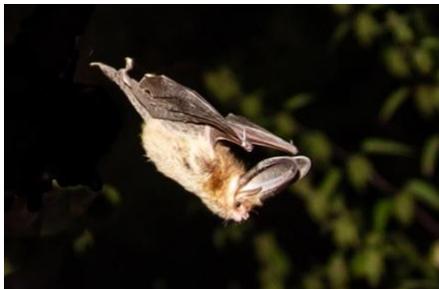


Bats are truly remarkable creatures. They are the only mammal that flies and one of few organisms that use echolocation to navigate and hunt for prey. There are around 1300 different species of bat in the world, the second largest group of mammals, many of which are beneficial to humans. For example, they save farmers worldwide billions of pounds worth of pesticides owing to their efficient hunting of insects that are damaging to crops. Their droppings make potent fertilizer, and this is utilized in many countries that house large bat caves. They are the predominant pollinators of crops such as banana, cocoa, avocado and mango amongst many others. They disperse seed which helps with reforestation. In Jersey you are lucky if you have bats in your house. All our bats consume insects, and you may notice that there are fewer irritating insects to bother you, but otherwise you would probably not even know they are there, as they cause no noise, smell or other problems.

One of the joys of a warm summer's evening is to sit outside a bat roost and watch them emerge in the semi-light. They appear to do this silently as humans cannot hear their ultrasonic echolocation, but in reality, they are constantly sending out sonic pulses. At Bracken Cave in Austin, Texas, millions of bats emerge every summer evening to the delight of the thousands of tourists who travel to this area just to see this vast 20 million plus maternity colony of Brazilian Free-tailed bats emerge. In Jersey, roosts are smaller, but the delight in seeing them in flight is just as great.



They have been described as flying mice, but this could not be further from the truth as they are much more closely related to humans than they are to rodents. They are long-lived mammals with a social structure, and some of our Jersey species can live up to 40 years.

Bat populations are highly susceptible to environmental change, whether it be loss of habitat, loss of prey species affecting diet, water quality, pollution, anthropogenic disturbance through light pollution, noise pollution or loss of roosts, in particular maternity roosts. Climate change can be a factor in most of these disturbances which can lead to fragmented populations, disturbance to their hibernation, reduction in breeding, mortality and possible extinction of species.

Bats are particularly sensitive to roost temperatures, especially when they form maternity roosts, which are congregations of breeding females together in a roof, tree hole, attic, cave or other suitable roost in June or July in Jersey. Female bats give birth to just one pup which is dependent on its mother for around 5 weeks. The mother will roost with her pup during

the day and at night go out to hunt insects to bring back. The pups form a creche which is supervised by mother bats that take it in turn to act as nannies. This manner of reproduction is efficient but is susceptible to outside influences, such as climate change.

in Jersey and much of Europe bats go into torpor in winter, which is a form of hibernation. There is evidence that some bats in Portugal are skipping hibernation altogether and breeding earlier, due to the warmer winter temperatures. This is likely to lead to a lack of suitable prey insects when they need to feed their pups which could lead to starvation. Even though we have just had a cold winter in Jersey, in general our winters are warming up and bats could decide to skip hibernation here too in the future and face a similar prospect of lack of insects for their offspring.

Bats are important bio-indicators of a healthy environment, as they are so sensitive to environmental changes. A healthy population of bats generally signifies a healthy environment whereas a lack of bats probably signifies the opposite. The Jersey Bat Group do a lot of research on our local bats and are amassing data annually to try to get trends in our bat populations. With their long natural lives, they are slow to show a decline but equally with their slow reproductive rate, they are unable to make quick recoveries.



Climate change may well cause new species from more southerly areas to utilize our relatively cooler climes, so we might expect to see species that are normally found in the middle provinces of France to appear in Jersey in the future. On the other hand, as our climate warms even more, we may lose some of our species to more northerly areas such as the UK or Eastern Europe. Mostly it comes down to availability of insect species, which in itself is dynamic as a result of climate change.

The Jersey Bat Group are working hard to research and help our local bats. We put up bat boxes in our woodlands, conduct capture/release sessions to determine our species under strict licences, conduct surveys, roost visits, engage the public in bat walks, organise a garden bat-watch each year, record our local bats using long-term static detectors, rescue and help to rehabilitate injured bats, educate our members through zoom tutorials (during Covid) amongst other things.

The Jersey Bat Group supports the government drive to carbon neutrality, but not at the expense of bats, as some of these energy saving drives may not always be beneficial to them. For example, whilst insulating lofts is a good way to prevent energy loss, this can be deadly to bats in that they can become entangled in certain types of roofing membrane and die. This is particularly pertinent for maternity roosts when young are born, and especially for our Grey Long-eared species that favour attics.

Solar panels are an efficient form of energy but should be carefully sited if placed on roofs to ensure existing bat roosts are not adversely affected.

The drive to zero carbon housing means there will be no access for bats in these airtight properties so future developments need to be required to provide other roost opportunities to enable our bats to continue to survive and breed.

Substantial changes to a habitat (e.g., re-forestation) should include a prior assessment of the impact of the change – otherwise it may actually be destroying good habitat for some species even though there are benefits for other wildlife.

Windfarms are an excellent way to generate energy but should not be sited in the path of migrating bats or birds as there is plenty of evidence to suggest that they can be lethal to migrants, if badly sited.

All these issues can best be addressed, and solutions or compromises found if proper consideration is given at the outset of any proposal. Our preference would be that appropriate assessments are mandatory and made prior to any works commencing. This would enable negative impacts to be avoided where possible, mitigation measures taken as required and enhancements put in place to enrich the environment for the future.

The Government of Jersey have committed to Resolution 8.7 of EUROBATS Bats and Climate Change, and we look forward to seeing some of these recommendations actually implemented. It should be noted that the government not only have a general commitment to the Agreement, as they are a signatory, but also have commitments under the climate change resolution too.

We would be happy to assist, if we can, should the Jersey Bat Group be consulted on the pertinent proposed changes and hope that the needs of bats and the potential impact on their populations would be taken into consideration.

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