

FLEETING ENCOUNTER

Two species of hawkmoth briefly cross paths in their search for nectar, as summer days fade to night

ON A FINE, still summer evening, in a garden in the south-west of England, a purple thistle is in full bloom. The numerous florets that make up the flowerheads are rich in nectar, attracting a plethora of insects to feed.

As dusk falls, a hummingbird hawkmoth can be seen hovering over each flowerhead. It sucks up the nectar with its long tongue, before moving rapidly onto the next flower, its wings a blur. Finally, it has enough stored energy to see it through the night. As the light begins to fade, it heads off to find a safe place to roost, among dense foliage.

As it flies off, an equally fascinating relative emerges, for dusk marks the start of the day for this moth, not the end. The elephant hawkmoth is, like most moths, nocturnal in its habits, taking to the wing as night begins.

Thus, the lives of these two insects briefly intersect. If this did not happen, they would never meet, for one has evolved to be diurnal, while the other is mostly nocturnal. Another major difference is that the elephant hawkmoth is resident in Britain, whereas the hummingbird hawkmoth is a seasonal migrant. It arrives here each spring and summer in ever-increasing numbers as summers get warmer. The hummingbird hawkmoth is far scarcer and less widespread than the elephant hawkmoth. Its daytime lifestyle, however, means it is seen more frequently.

Evolutionary traits

The hummingbird hawkmoth's name derives from its apparent similarities to a hummingbird. In a process known as convergent evolution, the two unrelated species have developed similar traits to meet similar environments.

This member of the hawkmoth family has evolved a body shape, wing movements and flight action that are almost identical to its avian counterpart, even down to the humming noise made by the wings. It has evolved to fill a niche as an aerial nectar feeder.

It is a buffish-orange creature, with grey forewings, orange hindwings, a black-and-white chequered body and a



Hovering above a thistle, a hummingbird hawkmoth sucks up nectar and moisture through its long proboscis, which is made up of two concave tubes hooked together. When not in use, the proboscis, which is nearly as long as the moth's body, is coiled up like a garden hose.

band across the tail. These are even similar colours and patterns to those of some hummingbirds. The wings beat very rapidly, up to 70-80 times a second, giving the impression of a blur to anyone watching. The insect even has what appears to be a face and beak. The former is a series of markings on the head, the latter, the thin proboscis which it uses to obtain nectar. Both bird and moth feed in the same way, by hovering in front of a flower while beating their wings to stay in position.

Hummingbird hawkmoths have a wingspan of 2-2¼in (5-6cm), not far short of the size of the smallest species of hummingbird. But there is a big difference. Hummingbirds have only one pair of wings, whereas hawkmoths have two, their forewings and hindwings. These work in rotation to keep the insect aloft, and allow them to manoeuvre even better than the actual hummingbird. >