

Moth

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Animal series

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1 Multitudes

Ea quae scimus sunt pars minima eorum quae ignoramus. (The ones we know form only a fraction of the many of which we have no knowledge.)

Carl Linnaeus¹

Most of us, said Austerlitz, know nothing of moths except that they eat holes in carpets and clothes and have to be kept at bay by the use of camphor and naphthalene, although in truth their lineage is among the most ancient and most remarkable in the whole history of nature.

W. G. Sebald²

Unlike their gaudy day-flying cousins, moths seem to reside in the shadows, denizens of the night circling around streetlights or caught momentarily in the glare of car headlights on a country lane. If butterflies have become a metaphor for graceful exhibitionism, gliding effortlessly between flowers or basking in bright sunshine, moths have too often been relegated to a realm of darkness and mystery. As for closer encounters with moths, like those to which W. G. Sebald alludes, these are more likely to be the dismay at finding a favourite sweater reduced to a kind of woollen version of Emmental cheese.

The idea that butterflies and moths are related yet opposites is somewhat artificial. For a start, there are many more species of day-flying moths than there are butterflies, and as for colours and patterns, many moths rival or even exceed butterflies in the dazzling range of their markings. In taxonomic terms, there is no substantive distinction between moths and butterflies as they are grouped together under the insect order Lepidoptera, a term first used by the Swedish naturalist Carl Linnaeus in 1735. It derives from the Greek words *λεπίς* (*lepís*), meaning 'scale', and *πτερόν* (*pterón*), meaning 'wing', because their wings are covered by thousands of

Centre-barred
Sallow, *Atethmia*
centrago,
photographed in
Stoke Newington,
London.



Jean-Henri Fabre photographed by Félix Nadar (1880). Fabre was an acute observer of insect behaviour and a significant influence on vitalist philosophies of nature.

of Europe's largest moth, the Great Peacock Moth, *Saturnia pyri*, in a 'wire-gauze bell jar' in his study. Later that day, as his family were going to bed, his young son suddenly began to shout with excitement:

'Come quick!' he screams. 'Come and see these moths, big as birds! The room is full of them!' I hurry in. There is enough to justify the child's enthusiastic and hyperbolic exclamations, an invasion as yet unprecedented in our house, a raid of giant Moths.²⁴

In all, Fabre counted over 40 male moths that had entered the house. Unable to explain the extraordinary scene, he wondered whether moths had some hidden means of communication, a 'wireless telegraphy' analogous to the recently discovered Hertzian radio waves.²⁵ We now know the mechanism behind this signalling: in order to attract a mate, the female releases a small amount of pheromones from her body at a precise moment that will ensure the chemicals are carried downwind. In a further twist to this olfactory choreography, closely related species of silk moths release pheromones at different times so that their courtship is staggered through the night.²⁶ Though the precise chemical compounds for many species have yet to be identified, scientists are able to use synthetically produced pheromones to monitor pest species and also to record highly elusive species such as the wasp-mimicking Sesiidae, whose presence can sometimes only be revealed by chemical lures. However, the remarkable ability of moths to communicate with each other over vast distances perpetuates a sense of mystery even today, despite our greater awareness of this natural chemistry; in Dario Argento's cult horror film *Profondo Rosso* (1975), this ability is attributed to telepathic powers. The film's main protagonist is engaged in research into the communicative power of insects (a

2 Appellations

Natural history is nothing more than the nomination of the visible.

Michel Foucault¹

The English word ‘moth’ is of Germanic origin, and can be traced to the Old English *moththe* or *moððe*, similar to the Northumbrian *mohðe*, derived in turn from the Old Norse *motti*. Until the sixteenth century, however, the word ‘moth’ was mainly used in relation to the larvae of some species that devour clothes and fabrics. The Old Testament’s Book of Isaiah, for example, uses the clothes moth as a warning – ‘For the moth shall eat them up like a garment, and the worm shall eat them like wool’ – while in the New Testament’s Gospel of St Matthew, Jesus warns against worldly goods (‘Lay not up for yourselves treasures on earth where moth and rust doth corrupt.’)² The clothes moth also makes an appearance in Shakespeare’s *Coriolanus*, where Penelope laments that ‘all the yarn she spun on Ulysses’ absence did but fill Ithaca full of moths’ (1.3). The modern usage has diverged, however, since the English word ‘moth’ is now used for all moths, whereas the closely related German word *Motte*, along with its Dutch and Scandinavian counterparts, is restricted to species that eat clothes, grain and other stored products.

One of the earliest words used for both moths and butterflies is the Greek word *psykhe* (*psychê*), first used by Aristotle, which also refers to the human soul.³ In its modern English usage, however, via the Latin *psyche*, it has acquired a narrower meaning as ‘spirit’, and even more recently a scientific sense through



Frontispiece from Moses Harris, *The Aurelian or Natural History of English Insects: Namely, Moths and Butterflies. Together with the plants on which they feed* (1766).

public appetite for natural history written in English rather than the traditional, scholarly Latin.¹⁷ The elaborate and expensive plates for *The Aurelian* illustrate moths found in and around London, and were dedicated to various international sponsors and benefactors, including Linnaeus and the merchant and naturalist Dru Drury, suggesting a new exchange of knowledge across national borders within Europe. The gradual adoption of a standardized taxonomic



Most literary evocations of moths before the modern era have focused on their attraction to light, but by the eighteenth century we can begin to detect other influences, with a renewed emphasis on folklore and myth associated with the rise of European romanticisms. In European folklore, for example, white moths were considered to be the souls of the dead, and this may be the origin of the vernacular name for *Hepialus humuli*, the Ghost Moth, whose white-winged males hover at dusk over moors, heaths and other grassy places.⁵ It is likely that the Ghost Moth is among those species evoked in the final passage of Emily Brontë's *Wuthering Heights* (1847):

Jan van Kessel,
*Stilven van
insecten en
vruchten*,
c. 1660–65.

I lingered round them, under that benign sky: watched the moths fluttering among the heath and harebells; listened