



Bees and other Big Business



Cereals and soft wood, examples of cropped plants that are still wind pollinated.



What we think of as all the world's economy, the money economy, is just the tip of an iceberg. Most of the work is done for us, cleaning the atmosphere or water, for example, is done for us without any money changing hands. The natural world – wildlife, is vital for our (human) survival. Insect pollination is a prime example of this. In a consultation paper last year the government gave a figure of “£440m per year” as the UK cost of the decline in pollinators. However, when estimating the cost of losing the resources provided by the natural environment we need to estimate the replacement cost of providing those services by other means. The cost of hand pollinating all the crops that are currently insect pollinated would be enormous.

The earliest plants were pollinated by the wind, and some of our current food crops, essentially cereals, use this approach. It is more resilient in that it does not depend on other species, but it is very wasteful for the plant as far more pollen has to be produced to ensure that enough reaches other plants. This is less of a problem when humans plant fields of single crops.

When the insect pollinated plants, known as angiosperms, evolved is still open to debate. It is generally taken to be about 90 million years ago, though recent discoveries imply as long ago as 140 million years. This is still well through the evolution of insects – they have been around for over 350 million years. Insect pollination may have evolved from wind pollinated plants producing a sugar based, sticky substance to bind any pollen that reached it, and this became an attractive food source for insects. It has been suggested that some insect pollination took place far earlier than is due to nectar seeking, as some insects may have visited plants to eat the pollen. Angiosperms form 80% of plant life on Earth and provide most of our cropped vegetation.



Mainly we think of “busy” bees pollinating flowers but many classes of insect do as well, most obviously butterflies, but also hoverflies, moths, wasps and even beetles.



Insects can be seen on many types of plant: crop, garden exotics and wild flowers.



Insects may be eating the pollen as well as the nectar.

Guildford Environmental Forum

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