

## MOSQUITOES

At the OWLS meeting before Christmas, we enjoyed a very interesting and informative talk about mosquitoes which was given by Keith Snow, one of the Committee members, whose interest in the subject goes back to his childhood days when he had a fascination for 'creepy crawlies!' Keith achieved a degree in Zoology and a PhD after studying at King's College in London. He worked as a lecturer at the South West Essex Technical College in Walthamstow and as a Professor of Environmental Science at the University of East London. He is also a Parasitologist and has experience of travelling in Asia.

Mosquitoes are the world's most dangerous fly, and are classified in the diptera group as insects. They are also holometabolous and therefore grow through an egg, larva and pupa to adult stage. The larvae and pupae are aquatic, the adults are free flying. At 80 degrees F, the larva goes through four larval instars in about 4 days before pupating. The pupa takes three days before the adult emerges. Adult females live several weeks given a source of sugar. Males usually live less than two weeks, whereas females can live up to 100 days. Only female mosquitoes bite and use proteins from a blood meal to produce eggs and are usually larger than the males. Depending on species, female mosquitoes may lay 100 to 300 eggs at a time and may average 1,000 to 3,000 during their lifespan. The larval and pupal stages can be found in a variety of aquatic habitats including discarded containers, tyres, temporary woodland pools, tree and crab holes, salt marshes and irrigation ditches.

Larvae eat many things. They graze over rocks and plant material removing grown algae and bacteria. They will filter feed from polluted water, but the water in which they live must never be allowed to develop a scum as they must be able to contain air through the siphon at the end of the abdomen. Both male and female adults feed on nectar. Larvae and pupae live in water, usually still water. They do not survive well in rushing streams or badly polluted water. Adults hide in vegetation near water or cool, damp places. Many species fly in search of blood meals in the evening. The positive things are that Mosquito larvae are important food for fish and other predatory aquatic animals. Adult mosquitoes are also important food for birds, bats and other arthropods, including dragonflies and spiders. Negatively, mosquitoes transmit pathogens that cause some of the worst diseases known, including malaria, yellow fever, dengue fever and encephalitis. However, mosquitoes only transmit the pathogens. In most case, they must feed on someone with the disease to

be able to transmit it to another person. Adult mosquitoes reared from larvae collected from ponds seldom carry pathogens and its never a good idea to touch them!!

Of course, bites from mosquitoes cause serious reactions from the two main groups of Culicidae and Anopheles (genus' of mosquitoes which transmit the microbe of malaria) and the parasite from these bites can attack the liver. Keith explained the types and development of these species. There are 34 types of mosquitoes in the UK and 3,000 species worldwide. A lot of viral diseases are spread by mosquitoes in the Tropics.

As for controlling mosquitoes, patio heaters attract them and ultrasound repellents don't work because the females are deaf! Effective ways are using biological methods and other chemicals, spraying, using vapourisers, skin repellents, mosquito nets or just swatting them!

Sir Ronald Ross discovered that mosquitoes transmitted malaria and although the disease has not been in the UK since 1880, it could return if there were the right damp conditions.

After the talk there was a Q and A session and it was very encouraging to have good participation and support from not only current members but new friends as well.

Bob Jenkins

The next meeting of the OWLS group is:

Monday, 15 February - 8pm.

The history and role of The British Trust for Ornithology

(Anthony Harbott)

and any new friends are invited to attend.