Fauna regarded as pests in the Maltese islands –(9)

The Wood Lovers(Susa)

By Arnold Sciberras

The term *'Susa'* in Maltese refer to any insect that in some way or another in one of its lifestages attacks live or dead wood. In practice the word is not indicative at all as if refereeing to every crawling creature on earth as an insect. Worldwide there thousands of species that generally can be classified as wood borers. Many species for example solitary bees like the carpenter bee dig holes in dead cane to produce its nest and their impact is virtually nil. However species like for example termites can leave devastating effects and bring a whole property in ruins. Whilst there is a large number of agricultural wood borer pest species, the following article will focus on domestic wood lovers.

The main wood lovers can be classified in two major pest groups:

Termites

These are a group of eusocial insects from the family Termitoidae, of the cockroach order Blattodea. While termites are commonly mostly known, as "white ants", they are only distantly related to the ants.

Like ants, some bees, and wasps—termites divide labour among castes, produce overlapping generations and take care of young collectively. Termites mostly feed on dead plant material, generally in the form of wood, leaf litter, soil, or animal dung, and about 10% of the estimated 4,000 species (about 2,600 taxonomically known worldwide) are economically significant as pests that can cause serious structural damage to buildings and agriculture.. Termites are major detritivores, particularly in the subtropical and tropical regions, and their recycling of wood and other plant matter is of considerable ecological importance.

As eusocial insects, termites live in colonies that, at maturity, number from several hundred to several million individuals. Colonies use decentralised, self-organised systems of activity guided by swarm intelligence which exploit food sources and environments unavailable to any single insect acting alone. A typical colony contains nymphs (semimature young), workers, soldiers, and reproductive individuals of both sexes, sometimes containing several egg-laying queens.

At maturity, a primary queen has a great capacity to lay eggs. In some species often reported to reach a production of more than 2,000 eggs a day. The distended abdomen increases the queen's body length to several times more than before mating and reduces her ability to move freely, though attendant workers provide assistance. The queen is widely believed to be a primary

source of pheromones useful in colony integration, and these are thought to be spread through shared feeding

The king grows only slightly larger after initial mating and continues to mate with the queen for life (a termite queen can live for 45 years). This is very different from ant colonies, in which a queen mates once with the male(s) and stores the gametes for life, as the male ants die shortly after mating.

Termites are generally grouped according to their feeding behavior. Thus, the commonly used general groupings are subterranean, soil-feeding, drywood, dampwood, and grass-eating. Of these, subterraneans and drywoods are primarily responsible for damage to human-made structures.

All termites eat cellulose in its various forms as plant fibre. Cellulose is a rich energy source (as demonstrated by the amount of energy released when wood is burned), but remains difficult to digest. Termites rely primarily upon symbiotic protozoa and other microbes in their gut to digest the cellulose for them and absorb the end products for their own use. Some species of termite practice fungiculture. They maintain a "garden" of specialized fungi which are nourished by the excrement of the insects. When the fungi are eaten, their spores pass undamaged through the intestines of the termites to complete the cycle by germinating in the fresh faecal pellets.[4][5] They are also well known for eating smaller insects in a last resort environment.

Termites are weak and relatively fragile insects that need to stay moist to survive. They can be overpowered by ants and other predators when exposed. They avoid these perils by covering their trails with tubing made of feces, plant matter, saliva and soil. Thus the termites can remain hidden and wall out unfavorable environmental conditions. Sometimes these shelter tubes will extend for many meters, such as up the outside of a tree or a wall reaching from the soil to dead branches.

Owing to their wood-eating habits, many termite species can do great damage to unprotected buildings and other wooden structures. Their habit of remaining concealed often results in their presence being undetected until the timbers are severely damaged and exhibit surface changes. Once termites have entered a building, they do not limit themselves to wood; they also damage paper, cloth, carpets, and other cellulosic materials. Particles taken from soft plastics, plaster, rubber, and sealants such as silicone rubber and acrylics are often employed in construction.

Humans have moved many wood-eating species between continents, but have also caused drastic population decline in others through habitat loss and pesticide application.

Woodworms or wood borers

Woodworm is a generic description given to the infestation of a wooden item (normally part of a dwelling or the furniture in it) by the wood-eating larvae/grubs of one of many species of beetle and moths.

Signs of woodworm usually consist of holes in the wooden item, with live infestations showing powder (faeces) around the holes. The size of the holes varies, but are typically 1mm to 1.5mm in diameter for the most common household species. Adult beetles which emerged from the wood may also be found in the summer months.

Typically the adult beetles lay eggs on, or just under the surface of, a wooden item. The resulting grubs then feed on the wooden item causing both structural and cosmetic damage, before pupating and hatching as beetles which then breed, lay eggs, and repeat the process causing further damage.

As the beetles evolved consuming dead wood in various forest habitats, most grubs, if not all, typically require that the wooden item contain higher moisture content than is normally found in wooden items in a typical home.

A building with a woodworm problem in the structure or furniture probably/possibly also has a problem with excess damp. The issue could be lack of ventilation in a roof space, cellar or other enclosed space within an otherwise dry building

The term woodboring beetle encompasses many species and families of beetles whose larval or adult forms eat and destroy wood .Larval stages of some are commonly known as woodworms. Moth species tend to be less invasive but several species are known to host specific to a kind of particular wood.

Woodboring beetles are commonly detected a few years after new construction. The lumber supply may have contained wood infected with beetle eggs or larvae, and since beetle life cycles can be one or more years, several years may pass before the presence of beetles becomes noticeable. In many cases, the beetles will be of a type that only attacks living wood, and thus incapable of "infesting" any other pieces of wood, or doing any further damage. In other words, only some types of beetles should be of concern to a homeowner. Genuine infestations are far more likely in areas with high humidity, such as poorly-ventilated crawl spaces. Housing with central heating/air-conditioning tends to cut the humidity of wood in the living areas to less than half of natural humidity, thus strongly reducing the likelihood of an infestation. Infested furniture should be removed from the house before the infestation spreads.

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Arnold Sciberras is a entomological pest consultant and founder of The Extermintor professional pest control services. For further information call 9988 7950 or e-mail theexterminator.malta@gmail.com.