

# *Account of Purley on Thames*

## Insects and Other Small Creatures

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### *Introduction*

The world is full of small creatures which ranges from viruses to large beetles in size. However most species are of little interest to the local historian so we will confine ourselves to just a small selection of types.

In this article therefore we deal only with the creatures that have been found and identified within Purley by members of Project Purley, or which have been mentioned in various publications and documents as having been observed in Purley.

The families covered are:-

Insects

Arachnids

### *Insects*

The insect population of Purley must be far greater than the human population of the world. There are well over 20,000 known species in the British Isles and so even to catalogue the number of species living within Purley would be nigh an impossibility. They take an immense number of different forms and about the most that one can say is that at some point in their lives they have six legs.

They belong to the phylum Arthropoda and their body is divided up into three regions - the head, the thorax and the abdomen. The head usually carries a pair of antenna and the thorax three pairs of legs.

Many have wings and all live their life in a number of phases and their appearance in one phase will be entirely different in another. Think for example of the life cycle of a butterfly which starts as an egg, they hatch as caterpillars, become a chrysalis and then finally emerge as a butterfly. They are described under their Order in the standard classification of insects as follows.

Entomologists classify insects into 29 orders as follows:-

#### *Sub-class APTERYGOTA*

Primitive insects without wings

Order THYSANURA - Silver fish and other bristle tails

Order DIPLURA - Tiny soil living insects

Order PROTURA - Minute soil living insects

Order COLLEMBOLA - Springtails

#### *Sub class PTERYGOTA*

Winged insects, although a number have lost their wings by evolution

## *Division EXOPTERYGOTA*

Insects whose wings develop externally and whose young, termed nymphs resemble the adult in all but size and the development of the wings.

Order EPHEMEROPTERA - Mayflies

Order ODONATA - Dragonflies

Order GRYLLOBLATTODEA - Soil living insects of the American mountains (not found in Britain)

Order ORTHOPTERA - Crickets and grasshoppers

Order PHASMIDA - Stick and leaf insects

Order DERMAPTERA - Earwigs

Order EMBIOPTERA - Web spinners

Order DICTYOPTERA - Cockroaches

Order ISOPTERA - Termites

Order ZORAPTERA - Minute insects of uncertain affinity (none known in Britain)

Order PSOCOPTERA - Booklice

Order MALLOPHAGA - Biting Lice

Order ANOPLURA - Sucking lice

Order HEMIPTERA - true bugs

Order THYSANOPTERA - Thrips

## *Division ENDOPTERYGOTA*

Insects whose wings develop internally and which undergo significant metamorphosis from the larval to the adults phases.

Order NEUROPTERA - Alder flies, snake flies and lacewing flies.

Order MECOPTERA - Scorpion flies

Order LEPIDOPTERA - Butterflies and moths

Order TRICHOPTERA - Caddis flies

Order DIPTERA - true flies

Order SIPHONAPTERA - Fleas

Order HYMENOPTERA - Bees wasps and ants

Order COLEOPTERA - Beetles

Order STREPSIPTERA - Stylopids (bee parasites)

Sub-class APTERYGOTA

Order EPHEMEROPTERA - Mayflies

**Order ODONATA - Dragonflies**

Dragonflies have long slender bodies and two pairs of high aspect ratio wings. They are very distinctive and unlikely to be confused with any other insects. They will be found mainly in the vicinity of water and many will be found around the Thames. They feed mainly on mosquitos and other small insects and are entirely harmless to man.

There are about 42 species in Britain which are divided into two sub orders - the damsel flies and the true dragonflies, the differentiation being that the wings of the damsels flies are all roughly the same size whereas the true dragonflies' hind wings are markedly broader than the front pair.

They will often mate on the wing and appear a bit like a pair of aircraft with one having flight refuelling from the other.

The nymphs may be found on the surface of the water or crawling up waterside plants. They undergo several moults before the final emergence of the winged insect and their life cycle can take up to five years.

Order PLECOPTERA - Stoneflies

## *The Arachnids*

Members of the Class "Arachnida" have a number of interesting characteristics which make them stand out as fascinating creatures to study. By and large they are predatory and very aggressive and can give a nasty bite. The most well known order within this class are the Spiders who belong to the order "Araneae". Very closely allied to the Spider are Ticks and Mites (Order "Acarii") and Harvestmen or Daddy-Long-Legs (Order "Opiliones")

Within the same class are also to be found many other rather unpleasant creatures like scorpions. Thankfully these inhabit warmer climes and are not found in Purley.

### *Ticks and Mites*

Every so often the children in the local schools will get a note from the head teacher that there has been an epidemic of ticks and parents are advised to take appropriate action to rid their children of them. The tick is a very pervasive creature which will lay thousands of eggs attached to hairs which are very difficult to remove. They will spread from person to person very rapidly but modern hairwashes and treatments can easily control them when they hatch. Almost everyone will get an infestation several times in their life, sometimes without knowing it. Many are infested permanently, however not so many now as fifty or more years ago when virtually all school children had them all the time.

### *Harvestmen*

The harvestman, more familiarly known as daddy-long-legs is a familiar sight in most homes. They are particularly active in the summer evenings. They will eat almost anything including vegetable matter and will capture and kill many small invertebrates. They are quite harmless to man and though they frequently invade the home they are really creatures of the garden.

### *Spiders*

The main distinguishing characteristic of a spider is its eight legs as compared to an insect's six. They are very widespread around Purley, A large number of species can be identified and the main families to be found in the area are:-

**Dysderidae** - with 6 eyes (all the rest have 8 eyes)

**Thomisidae** - the eight eyes are arranged in two transverse rows.

**Salticidae** - eyes are arranged in three rows of 4, 2 and 2. characterised by the way they move in a series of leaps.

**Pisauridae** - eyes in 3 rows of 4,2,2 the eyes in the 2 rows are much larger than in the 4 row. They run freely over the herbage.

**Lycisidae** - they are similar to the Pisauridae and run freely over the ground.

**Agelenidae** - eyes in 2 rows of 4. They spin a large sheetlike web with a tubular retreat at the back of it.

**Argiopidae** - This is by far the largest family found in the area. The eyes are in two rows. The lateral eyes almost touching and the central eyes forming a rectangle.

**Mimetidae** They construct a small brown pear shaped egg cocoon suspended on a fine

silken thread. Theridiidae - Similar to the argiopidae but the posterior legs have a comb of stiff curved spines. The web consist of a number of tangled lines with a tent like retreat where the spider keeps the egg sac.

**Dictynidae** - These have a row of curving bristles on the fourth pair of legs.

### *Bibliography*

A Field Guide to the insects of Britain (M Chinery)

