Pond

From Wikipedia, the free encyclopedia

For other uses, see Pond (disambiguation).

A pond is a body of standing water, either natural or artificial, that is usually smaller than a lake.[1] They may arise naturally in floodplains as part of a river system, or they may be somewhat isolated depressions (examples include vernal pools and prairie potholes). They might contain shallow water with marsh and aquatic plants and animals.[2] The type of life in a pond is generally determined by a combination of factors including water level regime (particularly depth and duration of flooding) and nutrient levels, but other factors may also be important, including presence or absence of shading by trees, presence or absence of streams, effects of grazing animals, and salinity.[3]



A pond in Swarzynice, Poland

Ponds are frequently human-constructed. In the countryside farmers and villagers dig a pond in their backyard or increase the depth of an existing pond by removing layers of mud during summer season. A wide variety of artificial bodies of water are classified as ponds. Some ponds are created specifically for habitat restoration, including water treatment. Others, like water gardens, water features and koi ponds are designed for aesthetic ornamentation as landscape or architectural features. Fish ponds are designed for commercial fish breeding, and solar ponds designed to store thermal energy. Treatment ponds are used to treat wastewater.

Source: https://en.wikipedia.org/wiki/Pond

Odonata

From Wikipedia, the free encyclopedia

Odonata is an order of carnivorous insects, encompassing the dragonflies (Anisoptera) and the damselflies (Zygoptera). The Odonata form a clade, which has existed since the Triassic.

Dragonflies are generally larger, and perch with their wings held out to the sides; damselflies have slender bodies, and hold their wings over the body at rest.

Systematics and taxonomy [edit]

This order has traditionally been grouped together with the mayflies and several extinct orders in a group called the "Paleoptera", but this grouping might be paraphyletic. What they do share with mayflies is the nature of how the wings are articulated and held in rest (see insect flight for a detailed discussion).

In some treatments,^[9] the Odonata are understood in an expanded sense, essentially synonymous with the superorder Odonatoptera but not including the prehistoric Protodonata. In this approach, instead of Odonatoptera, the term Odonatoidea is used. The systematics of the "Palaeoptera" are by no means resolved; what can be said however is that regardless of whether they are called "Odonatoidea" or "Odonatoptera", the Odonata and their extinct relatives do form a clade.^[10]

The Anisoptera was long treated as a suborder, with a third suborder, the "Anisozygoptera" (ancient dragonflies). However, the combined suborder Epiprocta (in which Anisoptera is an infraorder) was proposed when it was found that the "Anisozygoptera" was paraphyletic, composed of mostly extinct offshoots of dragonfly evolution. The four living species placed in that group are (in this treatment) in the infraorder Epiophlebioptera, whereas the fossil taxa that were formerly there are now dispersed about the Odonatoptera (or Odonata *sensu lato*).^[11]

Tarsophlebiidae is a prehistoric family of Odonatoptera that can be considered either a basal lineage of Odonata or their immediate sister taxon.

Source: https://en.wikipedia.org/wiki/Odonata

Mayfly

From Wikipedia, the free encyclopedia

For other uses, see Mayfly (disambiguation).

Mayflies (also known as Canadian soldiers^[2] in the United States, and as shadflies or fishflies in Canada and the upper Midwestern U.S.; also upwinged flies in the United Kingdom) are aquatic insects belonging to the order Ephemeroptera. This order is part of an ancient group of insects termed the Palaeoptera, which also contains dragonflies and damselflies. Over 3,000 species of mayfly are known worldwide, grouped into over 400 genera in 42 families.

Mayflies are relatively primitive insects and exhibit a number of ancestral traits that were probably present in the first flying insects, such as long tails and wings that do not fold flat over the abdomen. Their immature stages are aquatic fresh water forms (called "naiads" or "nymphs"), whose presence indicates a clean, unpolluted environment. They are unique among insect orders in having a fully winged terrestrial adult stage, the subimago, which moults into a sexually mature adult, the imago.

Mayflies "hatch" (emerge as adults) from spring to autumn, not necessarily in May, in enormous numbers. Some hatches attract tourists. Fly fishermen make use of mayfly hatches by choosing artificial fishing flies that resemble the species in question. One of the most famous English mayflies is *Rhithrogena germanica*, the fisherman's "March brown mayfly".^[3]

Mayfly
Temporal range:
Late Carboniferous-present [1]

Prec c os D C P T J K PgN

Rhithrogena germanica, the fly
fisherman's "March brown mayfly"

Source: https://en.wikipedia.org/wiki/Mayfly

Gelastocoridae

From Wikipedia, the free encyclopedia

The **Gelastocoridae** (**toad bugs**) is a family of about 100 species of insects in the suborder Heteroptera. These fall into two genera, about 15 species of *Gelastocoris* from the New World and 85 of *Nerthra* from the Old World.^[1] They are reminiscent of toads both in the warty appearance and hopping movements of some species.

Biology

Gelastocoridae are riparian insects, generally found at the margins of streams and ponds, where they are predators of small insects. Gelastocoridae catch their prey by leaping on top of them and grasping them with their modified front legs.^[2] Members of the family are found throughout the world, but their highest diversity is in the tropics.^[3]

Nymphs of many species cover themselves with a layer of sand grains. Apart from the no doubt considerable physical protection that the armour affords them, the layer of sand renders them effectively invisible on the ground unless they move at the wrong moment.^[4]



Gelastocoridae at the edge of the Eel River, California

Source: https://en.wikipedia.org/wiki/Gelastocoridae