

Pied flycatchers are back from Africa



MAYFLIES have been around for a very long time – at least 300 million years – and are the most "primitive" order of flying insects. The fleeting life of the adult mayfly is even enshrined in the name — we give this order of insects: Ephemeroptera, which means "short-lived wings".

TINY & WILD ROSS PIPER

Fleeting lives

Each May, a primeval spectacle takes to the air along our waterways...

For a few summer days, the surfaces of sleepy rivers erupt with insect life. As if from nowhere, millions of mayflies flit across the surface of the water, only to vanish again as quickly as they appeared. To witness this is special, but it also teaches us a deeper truth about the lives of most insects.

For most of their lives, mayflies live out of sight under the water as aquatic nymphs, taking anywhere between four weeks and four years to complete their development, depending on the species. Their purpose is to eat (mostly algae) and grow to successfully build the tissues and energy stores for the adult climax.

Some mayfly nymphs are active swimmers or crawlers, while others cling to stones or burrow into soft sediments. The adults, in contrast, are animals of the air, although they're typically not the strongest fliers. As soon as they emerge the race is on to mate and the males, sometimes with huge eyes (above) form dense fluttering swarms that the

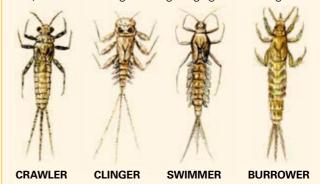
females fly into. Mating takes place in the air and the female lays her eggs within minutes

eggs within minutes or hours. The whole thing can be over within a single day. The spectacular,

synchronised emergence of the short-lived adult mayflies can seem odd to us, but lots of insects adopt this very effective survival strategy, which swamps predators with a glut of food.

WATER BABIES: MAYFLY NYMPHS

Depending on the species, mayfly nymphs are superbly adapted for swimming, crawling, clinging or burrowing.



A DIVISION OF LABOUR

We find a great deal of pathos in the fleeting lives of beautiful adult insects, but this is actually at the core of the success of these animals as it represents a division of labour in the life of one animal. The immature stage – larva or nymph – can focus on eating and growing, often out of sight; while as adults they can concentrate on dispersing and mating.

A good proportion of the adults escape the snapping jaws and go on to mate successfully.

Sadly, these mass emergences of insects are increasingly rare. Habitat loss, pesticides, artificial lighting and global warming are having a devastating effect on insects such as mayflies.



Dr Ross Piper is an entomologist, zoologist and explorer. His book,

Animal Earth, is a cutting-edge introduction to animal diversity. Find out more at rosspiper.net

WHAT'S ON MAY

Hire a guide

Various dates

Take a personalised tour around RSPB Loch Lomond, West Dunbartonshire, with an expert guide for a behind-thescenes wildlife experience. £15 (£20 non-member), £5 per extra person, book via loch.lomond@rspb.org.uk

Sail with puffins

Various dates from 12 May

Cruise around RSPB Bempton Cliffs, East Yorkshire, to see these iconic seabirds. £24 (£30 nonmember, kids 3–16 half price). Visit **bit.ly/2E4tQ1t** for booking and more dates.

Birding with David Lindo

Monday 27 May

Join David Lindo (p24) for nature talks and walks to celebrate RSPB Saltholme in Teesside's 10th anniversary. Info at **bit.ly/2UwZkDd**

RSPB optics weekend

4-5 May

Looking for a new pair of bins? Visit one of the many events on our reserves to get friendly expert advice, test the products and to purchase optics. Visit **rspb.org.uk/events** to find an optics event near you.

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