

La Brenne Report 2009

In central France lies a little place called La Brenne; it is situated south of Loire, south east of Tours and east of Poitiers. It has a Regional Nature Park consisting of 160,000 hectares and is a great place where wildlife thrives. La Brenne consists of many man made lakes where it is traditionally used for fish farming. Most of the fish caught are carp and the majority are exported though some are sold to locals. These man made lakes are surrounded by various rich and diverse habitats, from reedbeds and wet meadows to heaths, woodlands and other habitats creating a huge biological diversity for a variety of species- especially for birds such as the Whiskered Tern, Bittern and Marsh Harrier. There is also a rich diversity of plants (orchids, old oaks) and butterflies (Alcon Blue, Scarce Swallowtail). La Brenne's Regional Nature Park is managed by Tony Williams who has been the warden and site manager since 1982 and has been guiding natural history tours in the area since 1984.

The trip to La Brenne was funded by the Leonardo da Vinci section of the European Union Lifelong Learning Programme. It has several other partnerships in Europe: Hungary, Czech Republic and Poland. Further information can be obtained from www.kingcombecentre.org.uk or from Nigel Spring (tel: 07764188758 or email: nigelspring@yahoo.co.uk). In 2007 The European Conservation Action Network was established by a charity called The Kingcombe Trust which is based at the The Kingcombe Centre (west Dorset).

The 2009 trip to La Brenne consisted of 15 people from all over Britain and two from Hungary. All dedicated to help save La Brenne's butterfly population. 97 out of the 250 species found in France have been recorded in La Brenne. This is nearly twice the total number of butterfly species found in Britain! (57 species found in Britain)



The Alcon Blue (*Maculinea alcon*) butterfly is one of the main butterflies the group were concentrating on helping. It is a butterfly found in La Brenne but is absent from the British Isles. This particular butterfly has a very unusual life cycle and will only lay its eggs on a plant called marsh gentian as this is the only plant it will eat as a caterpillar (as seen on the left image). The group cleared scrub and brambles to allow room for the marsh gentian plant to bloom to increase the chances of successful egg laying. Once hatched the larva will continue to eat the plant until its fourth larval instar (a developmental stage-between each moult of an insect larva) when it then drops to the ground. It is



now that the larva, unlike other butterfly larvae, depends on the behaviour of two types of ants (*Myrmica rubra* or *Myrmica ruginodis*) for the rest of its survival in a seemingly parasitic approach. The larva starts to emit a chemical similar to that produced by ant larvae. If lucky enough, this will cause the ants to adopt it and carry it underground. Here it is kept, protected and fed by worker ants. Once the larva begins to pupate it is recognised as an intruder. The ants then begin to turn on what they thought was an ant larva and try to attack it. However the newly hatched Alcon blue is covered in loosely attached scales making it hard for the ants to get a grip with their jaws, this gives the butterfly a chance to escape.



However the Alcon Blue butterfly is not completely safe underground! The *Ichneumon eumerus* wasp is known for its parasitic larvae that prey on a variety of invertebrate hosts from aphids, cockroaches and mature tarantulas to caterpillars and butterfly larvae. Once the wasp has detected the Alcon Blue larva it enters the ants nest and sprays a pheromone that causes the ants to attack each other. As this confusion takes place the wasp has enough time to locate its prey and inject its eggs into it. As the Alcon Blue larva begins to pupate, the wasp eggs hatch and consume the Alcon blue alive from the inside out.

Butterflies play a very important role in the ecological system. They help pollinate plants and crops for the production of seeds and fruits. They also play a significant part in the food chain being a valuable source of food for birds, lizards, snakes etc. Butterflies are also an excellent indicator for the health of the ecosystem due to their vulnerability to ecological change. Therefore butterflies are an important species to protect and due to the rarity of the Alcon Blue butterfly the conservation work done will hopefully increase the chances of reproduction increasing the overall population.