

North Wales Dragonfly Newsletter No. 43. 29th May 2010.

Hi all,



The flight season is now well under way with many of the early species having been seen on the wing. I haven't had any reports of Hairy Hawker or Variable Bluet yet though.

Taking advantage of the excellent weather I've been out and about across North Wales to less well recorded areas in a gap-filling exercise. The latest version of the gap chart is attached. As a good example of how you can help in this Susan Loose sent me a photograph today of a dragonfly taken at Presthaven Sands caravan park near Prestatyn last September. It turned out to be the very first ever record from 10 km square SJ08 of probably our most common dragonfly, Common Darter!

A tale of a green-eyed dragonfly

Llyn Tecwyn Isaf [SH 629 370] is a lovely natural lake on the north-western foothills of Moel Ysgyfarnogod at Bryn Bwbach near Penrhyndeudraeth. The lake lies in a rock basin that was carved out by ice during the last glaciation and it has likely existed in some form since major deglaciation following climatic amelioration some 13,500 years ago. The lake took on its present form after the late-glacial cold period (Loch Lomond Stadial) around 10,000 years ago and since that time has acquired one of the most diverse odonate assemblages in North Wales.

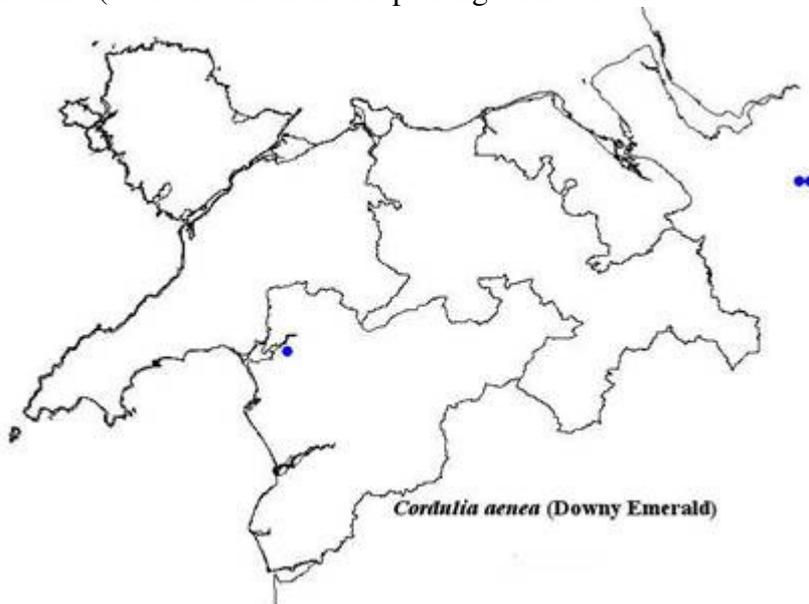
The lake is home to some uncommon dragonfly species, in particular the Downy Emerald (*Cordulia aenea*). This dragonfly is still widely distributed throughout northern Eurasia where it is confined to sheltered woodland ponds, lakes and canals usually with some sections containing over-hanging trees or shrubs. The larvae live on the bottom of the standing water in the leaf-litter close to the water margin. The species was no doubt also common throughout Britain for many centuries but its distribution was devastated by the widespread woodland clearances and felling as well as the drainage of ponds and lakes and later pollution. As a result the species is now absent or rare in most parts with localised strongholds only in the wooded areas south of the Thames, in Scotland and the Lake District.

Despite a search of nearby lakes, Llyn Tecwyn Isaf is now the only place in North Wales where the species is known to breed. It is hanging on there in low numbers and the most I've seen on one trip since I started visiting the place in 2005 is seven. It is not known who first discovered the species at this Merioneth lake but the first ever records were made by Anne and Stephen Cocker on 14th July 1996 when a few adults were seen. To have a good chance of seeing it flying one has to visit early in the dragonfly flight season, say from mid-May until the end of June.



Cordulia aenea mature male with green-eyes. Llyn Tecwyn Isaf 2008. Photo A. Brandon

The nearest extant localities to Llyn Tecwyn Isaf are Gull Pool and Shemmy Moss lakes in Cheshire (both shown on the map along with our lake as blue



dots). Only one other Welsh breeding locality is known and that is at Pysgodlyn Mawr, Glamorgan, South Wales.

You would think that this species had suffered enough in Wales but the situation remains that Llyn Tecwyn Isaf has no special environmental protection status and it happens to be the only coarse fishing lake in the vicinity. Unbelievably, the Environment Agency issued consent on

12th Sep 2003 to an Ipswich-based fisheries to stock Llyn Tecwyn Isaf with 50 Mirror Carp and 50 Common Carp. One has to hope that the effect of this introduction of large carp on the survival of the Downy Emerald larvae will not be catastrophic but it is hard to believe that the future chances for the species are good.

Though similarly introduced Grass Carp seem to have destroyed the marginal vegetation at the Pysgodlyn Mawr, it is reported by Adrian Fowles that four adults were seen flying last year and CCW local staff are hoping to undertake more comprehensive surveys this year to establish how well the population is faring. Mike Powell, the Glamorganshire recorder, has also indicated that the number of sightings there have been fairly steady over the last 6 to 10 years, usually with one or two individuals being seen but on the 4th June 2009 W. Jones saw at least 8 adults.

The prospects for the species at Gull Pool seem better. David Kitching comments that the cessation of nearby gravel extraction pumping probably raised the water level which resulted in the loss of sphagnum that provided cover for the now sadly locally extinct White-faced Darter larvae. But he suggests that Downy Emerald larvae, living amongst the leaf-litter, were not endangered by this and that their numbers may well have increased in recent years.

You have a good chance of seeing this lovely green dragonfly amongst many other interesting things, on the joint NWWT Arfon Branch/British Dragonfly Society field meeting on 13th June.



Cordulia aenea immature female. Gull Pool, Cheshire 2006. Photo A. Brandon

European species of Dragonflies threatened

A [press release from the IUCN](#) (International Union for Conservation of Nature) published on 16th March reports serious concerns about declines in several European species of butterflies, beetles and dragonflies. *"Habitat loss is having a serious impact on Europe's butterflies, beetles and dragonflies. The release of the European Red List, commissioned by the European Commission, shows that nine percent of butterflies, 11 percent of saproxylic beetles (beetles that depend on decaying wood) and 14 percent of dragonflies are threatened with extinction within Europe. Some species are so threatened that they are at risk of global extinction and are now included in the latest update of the IUCN Red List of Threatened Species™."*

Online release of 1:50 000 geological map data

Wearing another hat I feel I must announce the amazing online release of the national seamless 1:50 000 scale geological map by the British Geological Survey (<http://maps.bgs.ac.uk/geologyviewer/>). This is a complete reversal from their policy of only a few years ago when BGS hoped the seamless digital map programme would result in making them a lot of much-needed money. Geology underpins biological activity, even dragonfly distribution, so this ready access to geological mapping is a real bonus. Though it has its inadequacies, on the whole it is pretty damn good. Pity it is distorted and doesn't have grid refs or enough place-names, but with a 1:50K topo map in hand it is fairly useable.

Did you know

..... that dragonflies lose the use of their legs for moving around as soon as they emerge as adults. Instead they are modified into grabbing and holding devices when catching prey. To facilitate insect entrapment they are armed with an array of spines.

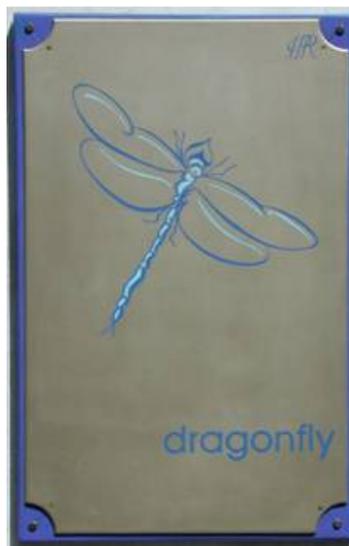


Rhodothemis rufa male, Kerala 2005. Photo A. Brandon

The photo below shows how hawker dragonflies hold their legs during flight to minimise air resistance.



Aeshna affinis male, Pyrenees-orientales, France 2009. Photo A. Brandon.



Logo outside a ladies clothes shop in Conwy. Photo A. Brandon.

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