

## Some Interesting Residents of Tees Valley Brownfield Sites

Some industrial sites in the Tees Valley, formerly the old county of Cleveland in North East England, have a very special assemblage of flora and fauna. This is often a factor of the habitat type and because some larger sites have areas that do not have public access and have remained undisturbed for many years, this allows nature to flourish.

One such site in the North Tees area of the Borough of Stockton-on-Tees is an operating brinefield. Habitat on this site consists of a rich mosaic, including relic saltmarsh and areas which now have saltmarsh vegetation as a result of deliberate application of brine as a nature conservation measure to encourage habitat rich in saltmarsh plants. Saltmarsh is a rare habitat in the Tees Valley and is also a UKBAP priority habitat.



### **Habitat at North Tees including relic saltmarsh**

Many specialised saltmarsh plants occur on this site, including various species of Glasswort (*Salicornia* spp.) and Common Saltmarsh-grass (*Puccinellia maritima*). In surveys of the moths of this site during 2010 a number of scarce species were found that specialise as larvae in feeding on saltmarsh plants. Of the species found at least 5 were regionally significant, but even more exciting is just how abundant some of the scarcer species were. This includes the Dog's Tooth (*Lacanobia suasa*), recorded on 17<sup>th</sup> June 2010 and the Saltern Ear (*Amphipoea fucosa*) recorded on the 4<sup>th</sup> August 2010. At least 40 individuals of the former species and 20 of the latter were found in surveys during summer 2010, indicating that both are well established on the site. This finding is important, especially in view of the fact that both species were previously known only from a very few records in North East England. The record of Saltern Ear is particularly noteworthy as it is the first for County Durham (VC66) and is some 100 miles north of the nearest known established colony at Spurn Point in Yorkshire.



**Dog's Tooth**



**Saltern Ear**

In addition to the Dog's Tooth and Saltern Ear other significant records of moths from the same site include specialised saltmarsh species such as the Crescent Striped (*Apamea oblonga*), which is associated with various species of Saltmarsh-grass (*Puccinellia* spp.). Four examples of this species were recorded on 4<sup>th</sup> August 2010 and the site is one of only two currently known locations for this species in North East England.

Several interesting microlepidopteran species were also found on the same site. Of these, *Coleophora salicorniae* was represented by six moths which were recorded on 4<sup>th</sup> August 2010. This is the first record for VC66 and currently appears to be the most northerly record for this species in the UK, the nearest again being Spurn Point.

The Gelechiid *Scrobipalpa salinella*, of which three were recorded on 17<sup>th</sup> June 2010, is the first record for VC66 since at least 1912. Both species are known to use various species of Glasswort (*Salicornia* spp.) as larval foodplant. These plants abound in parts of the brinefield site.

Industrial sites across the Tees estuary are also home to a significant amount of reedbed, which is part of the habitat mosaic found on such sites. This is in itself a scarce habitat, being listed as a UKBAP priority habitat.



### ***Phragmites* reedbed on a North Tees brownfield site**

Many of the reedbeds in the northern part of the Tees estuary and in Billingham have become important for wainscot species which are at the northern edge of their range. As more of the larger reedbeds are investigated it is increasingly being found to be the case that those which are dominated by Common Reed (*Phragmites australis*) support established populations of Brown-veined Wainscot (*Archanara dissoluta*), Obscure Wainscot (*Mythimna obsoleta*) and Southern Wainscot (*Mythimna straminea*). These species were first reported in the Teesmouth area during 2004 and 2005 from a reedbed at Dorman's Pool (Jamie Duffie, pers.comm.).

In addition the Fen Wainscot (*Arenostola phragmitidis*) is the most recent to have been found to have become established. Apart from one record originating from 1976 during survey of a reedbed at Haverton Hill in the Borough of Stockton-on-Tees (Russell McAndrew, pers.comm.) it was hitherto unknown. Studies at four sites in the North Tees and Billingham areas over the 2009 and 2010 seasons have shown the species to be resident at a low density on all of these sites, with records spanning the period mid July to mid August.



**Fen Wainscot**



**Obscure Wainscot**

These results are from baseline studies carried out by Robert Woods of the Tees Industry Nature Conservation Association (INCA). Some of the results derive from a brownfield invertebrate habitat creation project which is being conducted in partnership with Buglife, the Invertebrate Conservation Trust and the Tees Valley Wildlife Trust. The data illustrate how important brownfield sites are for sensitive environmental indicators such as moths. Thankfully many industrial organisations also show a great deal of support in conserving areas on their sites which are recognised as being important for wildlife.

## **Acknowledgement**

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