

Notes from Local Interest Group 30th June 2016

Present: Maureen Lloyd (ML), Ray Woods (Speaker), Wendy and Dainis Ozols, Pauline and Peter Spode, Gwyneth Guy, Roy Lloyd, Wendy King, Sally Matthews, Richard Harris, Joan Lloyd, Valerie Head, Jenny Francis, Mollie and Geoff Moore, Janet and Mark Robinson, John Price (Hay), David Jackson, Barbara Lloyd, Andy, Hannah and Edward Shaw, Jude Hurn, Gareth Jenkins, Val Bradley, John Bratton, Grace Davies.

ML started the evening by welcoming everyone and introducing Ray Woods, our leader for the evening. She explained that this month's meeting involved a field trip to Rhosgoch Bog. She suggested that we should stay together as a group and to follow Ray, as he would know the safe places to walk. She also warned us that there were 5 ponies grazing on the bog.

Ray Woods introduced some of the other experts who were also coming along on the visit. These were Andy and Hannah Shaw (plant and pond experts) and John Bratton who is a beetle expert. Val Bradley is yet another expert on freshwater species.

Ray went on to tell us some background information about Rhosgoch Bog. It is owned and managed by Natural Resources Wales (NRW). Previously, it was part of the Maesllwch Estate and Ray had advised Major de Winton on how various parts of this estate could be best disposed of some years ago. The Begwyns had been given to the National Trust, Cilcenni Dingle to the Woodland Trust and Rhosgoch Bog went to the Nature Conservancy Council, thence to CCW and now NRW.

The bog is what is known as a raised mire and is very important nationally and internationally. About 15 – 16,000 years ago, when the ice of the last Ice Age was melting, much boulder clay was deposited in the area and some formed a mound large enough to trap water behind, thus forming a lake. This slowly filled in with clay deposited during the melting process and vegetation started to colonise the shallow waters. Freshwater molluscs and a strange algae thrived in the water and led to a build-up of calcareous deposits, forming a marl. This is quite common in postglacial lake bed sediments and is often found underlying peat bogs. The shallower waters were gradually colonised by saw sedge and reed grass.

During the Bronze Age the surrounding hillsides were cleared of trees and, as a result, rainwater flowing down the slopes washed the clay soils down into the valley bottom; some of these were deposited in the bog. As the water became shallower, the bog was no longer fed by groundwater and rainwater became the more important contributor. As the colonising plants grew, their lower parts died and layers of peat gradually built up as these semi-decayed remains became compacted. In the north-eastern half of the reserve the large accumulation of peat resulted in the formation of a dome-shaped raised bog.

This type of raised mire is only really found on the western seaboard of continents (these are the only areas with high enough rainfall all year round – continental interiors are too dry); many of them have been destroyed through activities such as farming and peat cutting. There are a few left in Wales – Cors Caron near Tregaron is a good example. On an international scale, these raised mires are very rare and this is what makes Rhosgoch Bog so important. Also important on this site is the lagg woodland and Rhosgoch has one of the best examples of this. Here it is in the form of willow carr – wet woodland formed as part of a plant succession in marshy areas.

The bog has been damaged by peat cutting in the past and there was a fire in about 1950, but it is still an important site. Ray said that in the past people knew how to manage the grazing on areas

like this and so the bog had been generally well managed. Encroachment of scrub vegetation is an issue here, but this has been managed using a combination of scrub clearance and animal grazing. Management aims to maintain a high water table in the bog, but it has been on and off over the years. Although NRW owns the site, commoners have grazing rights and NRW works with them in a good co-operative venture to make it work. Local involvement is going to become more important as the money for management is slowly drying up.

The richest areas of the bog, botanically, are those where the water is less acid, such as the swamp area to the south west. The swamp receives run off from the surrounding land. The peat bog in the north east is more acid and this is the area fed only by rainwater.

The bog is one of the most diverse sites in mid Wales and Ray went through many of the plants that are found on site. Pillwort is found on the bog and Radnorshire has more pillwort than anywhere else in Britain. He also told us that sticklebacks have been recorded in the marginal streams and he has not seen these anywhere else in Radnorshire. He is not certain of their origin. Could they be introduced or might they be remnants of the ancient bog lake?

As we walked over the grassland and the swamp part of the bog to the south east, we saw some scrapes (pools) which have recently been dug out. These two areas, at first sight, seem to be dominated by sedges and rushes, but closer inspection (by expert eyes) found a number of different plant species for us to see. These included: water mint, lesser spearwort, common pondweed, marsh bedstraw, ragged robin, lesser marshwort, bladderwort, water plantain, floating clubrush (a speciality of the bog), cuckoo flower, marsh pennywort, marsh ragwort, jointed rush and soft rush. In this very wet swamp area we also saw a scarlet tiger moth and a common darter. There were obvious signs of grazing here; the five ponies appear to be eating the sedges very selectively.,

It was too wet to go as far as the electric fence, which is controlling where the ponies graze but, from a short distance, Ray pointed out various plants growing in the area. These include hemlock water dropwort, which has extremely poisonous root tubers. The visible pink haze came from ragged robin that was growing in abundance.

The central core, the raised bog where the soils are more acid, is dominated by heather, cotton grass and royal fern (*Osmunda regalis*); the latter survives in Radnorshire, but not in many other places. The area also supports a range of orchids including common heath, common spotted, fragrant, southern marsh and early marsh. Twayblade can be found in the woodland and marsh cinquefoil on the woodland fringe. Meadow thistle, a plant that is rare on a world scale, is also found in the area and there is mention of it in Kilvert's diary.

We were incredibly lucky that it stayed dry for our visit. It is quite difficult to walk around the wetter sedge and reed covered areas, but Ray said that it was well worth going back to visit the bog at different times of the year, as long as it was not too wet. He advised that no-one should visit alone, however.

We rounded off the evening with very welcome refreshments at the home of Wendy and Michael King; many thanks must go to them for their kind hospitality.

The evening ended with ML thanking Ray Woods for giving so generously of his time to take us to the bog. We had certainly all benefitted from his amazing wealth of knowledge of all things natural. Many thanks also go to Andy and Hannah Shaw, John Bratton and Val Bradley for their expert input.