



Newsletter

Spring 2010

We aim to work in friendly collaboration with landowners and farmers, conservation organisations and relevant public bodies.

RGCG ANNUAL GENERAL MEETING

Saturday 22nd May

Our AGM this year will be held in Holt, in the Chemistry Lecture Theatre at Greshams School. Simon Harrap will speak on Holt Lowes and its Wildlife. The school has ample car parking space. The timing of the programme will be:

2.30pm-3pm. Formal business of the RGCG
3pm-4pm. Holt Lowes and its Wildlife
4pm-4.30pm. Tea and biscuits

As in previous years we are opening the talk to non-members by advertising locally. As a member you would be most welcome to bring along any guests who would be interested in the topic and activities of the RGCG. There is no charge for entry, but a donation for the refreshments would be most welcome.

Simon Harrap has been Secretary to the Holt Lowes Trustees for a number of years and as well as being responsible for planning conservation management on the Lowes he frequently takes part in management work himself.

For fifteen years Simon has led bird-watching tours all round the world, typically about seven each year, for Birdquest. He has written a number of books including *Where to Watch Birds in Britain* (with Nigel Redman, 2003) and, with his wife Anne, the highly acclaimed *Orchids of Britain and Ireland* (2005, with a recent second edition). More recently he has produced two small books: *Flowers of the Norfolk Coast* and *Flowers of the Norfolk Broads*, taking all the photographs and doing the design work himself. He is currently working on a national plant field guide, once again using his own photographs.

Holt Lowes is an area of about 50 hectares lying to the south-east of Holt Country Park about 1 km south of the town. It is a relic of the once very extensive area of heathland that occurred between Holt and Cromer and extended in an almost uninterrupted tract south to Norwich. The heaths were formed by sands and gravels which were deposited by retreating ice-sheets in various Ice Ages.



Holt Lowes contd



The porous soils of heathlands are nutrient-poor because rainwater washes minerals downwards to leave the surface soils impoverished. However, a few plant species of the pea and heath families have adaptations to cope with this and form the dominant vegetation. Dry heaths have a relatively low biodiversity but, because of the scarcity of this habitat, both nationally and globally, many of the species present are of conservation interest. Amongst these are the Adder and the Bog Bush-cricket and Holt Lowes is designated a Site of Special Scientific Interest (SSSI). Although unsuitable for arable agriculture unless heavily fertilized, heaths have traditionally

been used for grazing with tree development being prevented by regular burning, both intentional and accidental.

The south-eastern boundary of Holt Lowes is formed by the River Glaven and two spring-fed tributaries have created wet valleys with much greater plant diversity than the dry heaths. Some six species of plant have their sole Norfolk locality on Holt Lowes.

Conservation management has been directed at removing young trees to maintain an open habitat; a heath that has turned into a wood loses most of its distinctive flora and fauna despite this transformation being entirely natural. In recent years, the availability of substantial funds, much in the form of grants claimed by the Norfolk Wildlife Trust, has made it possible to carry out large-scale management work by professionals. This has involved the removal of a significant area of woodland, all of it developed since the Second World War when the heath was used for military training. For the past several years, the Lowes have been grazed during the summer by a small herd of cattle to reduce tree regeneration and improve botanical interest in the wet valleys.

In his talk Simon will explain why Holt Lowes is such a very special place.



Butterwort survives in nutrient-poor peat bogs by obtaining some of the mineral nutrients it needs from small insects which become trapped on its sticky leaves. It is a common plant in the north and west but is becoming scarcer in lowland Britain as suitable wet habitats are drained. Holt Lowes is one of only a handful of Norfolk locations for this plant. Its star-shaped rosette of pale green leaves are visible through much of the year but its delicate violet flowers appear only in early summer.

Hempstead Mill silt trap

Silt Trap above Hempstead Mill



Silt is fine material which runs off the land and into rivers where it can cause a number of problems. By clogging and burying river-bed gravels, silt significantly reduces the number and biodiversity of invertebrates, and hence their predators such as brown trout. Silt deposited in the ponds along the channel, where the water is slow-moving, has to be removed at intervals if the ponds are not to 'fill-up' and vegetate. Removal of the silt from a pond is a costly process and one which disturbs wildlife. Hempstead Mill is a County Wildlife Site.

The best way to avoid the silt problem is to reduce its movement into the river and much work has been done in this area under DEFRA's initiative on Catchment Sensitive

Farming. Inevitably there will always be some entry of silt, from damaged road side banks as well as arable land, which over time gradually will move downstream

Ponds on the river system can be 'protected' by the construction of silt traps immediately upstream. These are smaller 'ponds' which act as settling areas, abutting the channel, and designed to be dredged by easier access and with little impact on wildlife.

In May 2009 a silt trap was constructed by Environment Agency engineers on the River Glaven above Hempstead Mill pond. Soil removal required a large digger working to a plan drawing. Over a period of time this is expected to significantly reduce the amount of silt entering the pond.



Glaven Herd – a conservation success

Ecological monitoring reveals the positive contribution of Highland cattle to floodplain conservation.

From 2008 the RGCG helped to introduce Highland Cattle to three sites along the River Glaven, starting with the "restoration site" at Little Thornage Meadows.

We (the wet meadows team at University College London) have been monitoring the effects of grazing on floodplain plant diversity at this site and have undertaken vegetation surveys along 7 fixed transects prior to (summer 2007) and 2 years after (2009) cattle introduction.

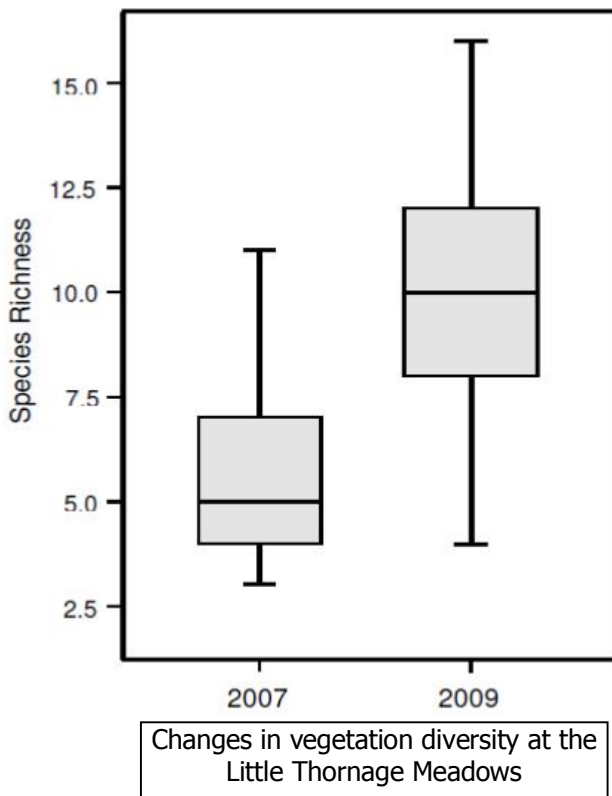
Previously dominated by strongly competitive plants like Reed Canary-grass (*Phalaris arundinacea*) in 2007, the banks and meadow along this stretch of the river now support a wider range of grasses and wild flowers, including Bog Stitchwort (*Stellaria alsine*) and Greater Bird's-foot Trefoil (*Lotus pedunculatus*). An additional 7 grass species were also recorded in 2009 (while trying to dodge the inquisitive Highland Cattle themselves!). The increase in species diversity can be seen in the graph below which shows a considerable jump from an average of 5 species

per square metre (in 2007) to 10 after just two years of grazing.

This biodiversity gain comes from the selective grazing of cattle on floodplain plants which produces a relatively uneven sward. At Little Thornage Meadows, this has reduced abundances of Reed Sweet-grass (*Glyceria maxima*) and Reed Canary-grass that were overwhelmingly dominant in 2007. Additionally, although cattle can trample vegetation and churn up soil, at low stock levels, as at this site, this can actually help to create regeneration niches for wild flowers and bare ground that is useful for insects.

As a key nature conservation management strategy for wet grasslands in the UK, cattle grazing will continue on these floodplains to maintain high levels of biological diversity and we will survey again in 2011 to see how things are developing...watch this space!

Tori Shepherd, Sarah Barr, Carl Sayer (The UCL meadows team) and Tony Leech



Cattle handling corral in action in the Glaven Valley at Wiveton bridge.

The RGCG and the grazier acknowledge the contribution of £1500 from the Norfolk Wildlife Trust which covered almost all of the cost.



The Dudgeon Connection (Underground Cabling)

The Dudgeon Offshore Windfarm (DOW) is to be located about 32km off the north Norfolk coast, Cromer being the nearest settlement. The landfall point for the cabling which connects the windfarm to the national grid will be at Weybourne Hope, and from there a 45km buried cable system is planned to run to a new sub-station at Little Dunham in Breckland.

While a buried cable system is to be greatly preferred to new overhead high voltage power lines, it is not without some considerable potential to impact adversely on the countryside, even with a great deal of planning in selecting the line of the route. Most of the cabling will be laid by using open-cut trenching, which requires a 40m wide working area, which could affect wildlife habitats and landscapes; for crossing an important hedge they can 'make do' with 20m).

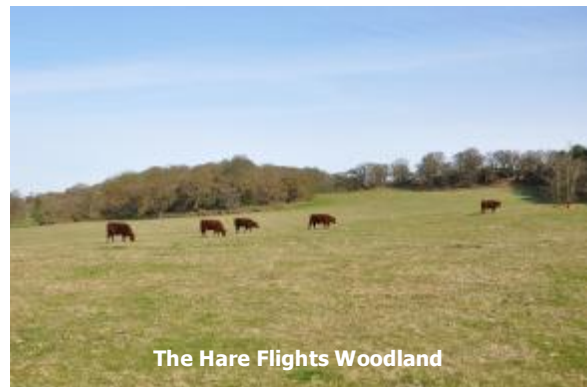
In some places, open trenching has to be avoided due to either technical cabling issues, or potentially significant environmental impacts. In that case 'horizontal direct drilling' (HDD) is used. The technique is costly and time consuming. The very weighty Environmental Statements showed eight HDDs in North Norfolk; the A149, Hare Flights woodland and the Glaven at Bayfield Hall, the A 148 just to the west of the junction with the B 1354, at the A1067, and the River Wensum and two disused rail embankments in the Ryburgh area.

The consultation period was from 6th-27th January. The RGCG made a joint response with CPRE Norfolk, and we mention those parts which affected Bayfield. Overall it was gratifying that our points were given a careful consideration, and in places our proposals accepted. The DOW response interspersed our comment with their reply:

BAYFIELD ESTATE

HDD is used to cross Hare Flights woodland (HDD2) and the River Glaven (HDD3), map at Section 3, page 14, The west side of the river to the road is flood plain meadow (neither side is bare earth, as seems to be depicted on the map at page 10, Section 7), The meadow does have some botanical value and is part of a historic parkland setting. A 40m wide swath for an open cut trench is not a desirable option here. We suggest that HDD be used to cross the meadow (and at a lower priority could be continued across a busy road serving Glandford, Wiveton and Blakeney).

Following a recent site visit and discussion with engineers, ecologists and consultees, DOW now proposes to extend the HDD at Bayfield Park, subject to approval by the Local Planning Authorities. The proposed HDD will now continue from the eastern side of the River Glaven under the 'western meadow' described above, boundary wall, Blakeney Road (C599) and tree line into the agricultural field to the west of the road.



The Dudgeon Connection (Underground Cabling) contd

Unique to this site, we understand that there is a major bat colony in the culverted original course of the river (part flow goes through Bayfield Lake). The large brick built tunnel has a series of air holes, which serve as bat entrance points. Bats can be disturbed by noise and vibration. The culvert is about 1km long, and the south end is close to the river crossing point and the area of meadow which will be crossed. This colony is not mentioned in the text, but it should be considered for any mitigation measures in working in this area; and it may be for this reason also that HDD is the preferred technique.

Bat mitigation measures were discussed in a recent meeting with Natural England, North Norfolk District Council and Norfolk County Council. The presence of the bat colony in the brick built tunnel is noted and will be detailed in the Environmental Action Plan that will be produced for the onshore works (which will be agreed with the Environment Agency, Natural England, District and County Councils).

An additional bat survey will be undertaken by a bat specialist prior to commencement of any ground preparation and construction works. This will ensure that any bat colonies and habitat suitable for roosting within and at an approximate distance to the cable trench, not already identified in the ES, will be identified and mapped.

Following the Natural England guidance on bat conservation, if bat colonies / roosting sites are identified within or at an approximate distance from the cable trench, then Natural England will be consulted and a bat licence and suitable agreed mitigation measures will be Applied.



River diversion: part of the flow feeds the lake



The main flow continues into the brick tunnel, which runs parallel to the Lake.

The two flows join together again by the main drive which leads to Bayfield Hall.



Ian Shepherd

RGCG meets RCEP

In 2007 the RGCG won the annual award from the Wild Trout Trust for conceiving and implementing a range of measures to restore a 1km length of the river in the middle reach (the Cinderella Project). Currently we are involved in the planning for two other major projects, one well advanced and the other in the very early stages.

The award project was our first major scheme and has attracted considerable educational interest, with school students ranging from youngsters to 'A' level Environment and Geography studies. This and other sites has also seen a succession of MSc students involved in 'before and after' physical and ecological studies.

There have been a number of visitors with a professional interest come to the site, including on the 4th February last year a visit from a Royal Commission

on Environmental Pollution (RCEP) group charged with making recommendations on adapting to Climate Change.

One of the measures we undertook on our first project was to have removed some 700-800 tonnes of a high and wide spoil heap sitting on the river bank, the result of past dredgings, and prevalent on the meadows up and down the river. Our principal interest was to restore the natural 'wetness' gradient from river to meadow for nature conservation and landscape reasons. However we realised it also had a flood risk benefit by re-connecting the river and floodplain.

The RGCG also had a 'prompting' and facilitating role in the Catchment Sensitive Farming (CSF) initiative which has been very successful. But it was the re-connection measure that the Commission drew attention to in their report and recommendations, published on the 30th March.

CASE STUDY: THE RIVEN GLAVEN and CATCHMENT SENSITIVE FARMING

A significant challenge for water purification in the future will be dealing with surges from sudden rainfall events. This increases the amount of pollutants and sediment that need to be removed from water; and it is a source of diffuse pollution, as opposed to pollution from a single, identifiable source.

In the North Norfolk region, one challenge is agricultural run-off. Catchment sensitive farming (CSF) is an initiative sponsored by Defra and co-managed by Natural England and the Environment Agency. They work with local farmers to tackle diffuse pollution by managing run-off, by promoting practices which enhance soil structure and reduce erosion, and by controlling the use of fertilisers and pesticides in a way that is sensitive to the ecological balance both of the immediate area and further downstream. One potential difficulty is that there is no security of long-term funding as CSF is a five-year programme, launched in 2007.

The Commission visited one such scheme in the River Glaven catchment in North Norfolk. The Commission also met the Glaven Conservation Group, a local volunteer organisation. The Group's work demonstrates the potential role of local, small-scale activists in driving adaptation behaviour, as they are able to bring different actors together. By removing banks to open up flood meadows, the Group has helped change the riverside to make it flood more naturally, thereby reducing the risks of more damaging floods downstream.



River over-topping the meadow during the rain event 27/28th May 2007. On 25th June a more severe rainfall resulted in the whole meadow flooding.

Within 9 months of the removal of the spoil bank, the reconnection of river and flood plain was shown to "work" and hence reduce flood risk downstream.

Ian Shepherd

Environment Agency's volunteer day at Thornage Common

Thornage Common is a narrow strip of land between the road running south from Little Thornage towards Thornage, and the grazing meadows along the River Glaven. It too was once grazed but since this ceased dense scrub has taken over. An overhead power cable runs the length of the Common and last summer EDF Energy cleared around and below the line. The impenetrable tangle of branches which were left filled the Common for most of its length but created an opportunity . . .



The task before us!



The Team in action!

On an overcast day in March a group of 12 volunteers from the Environment Agency's Norwich-based Environment Management Team descended upon Thornage Common. The task before the Team was to establish a way through approximately 300 metres of dense woody debris to create a path parallel to the road. They set to, with bow saws, loppers and much enthusiasm, under the guidance and watchful eye of Tony Leech, who obligingly identified the interesting species of fungi discovered during the exercise.

Further entertainment was provided by sightings of a barn owl, a little egret, and a very large hare which bounded through the adjacent water meadows.

Task complete, and fortified by fish and chips, the volunteers were rewarded with a walk along the banks of the River Glaven, where they admired the in-river restoration and enhancement works carried out by members of the RGCG, supported by the Environment Agency, a couple of years previously.

Having been looked upon kindly till then, the heavens opened as the group were about to turn back, but this failed to dampen the spirits of all those involved who had spent a very informative, productive and satisfying day out of the office.

Lorraine Marks



Job done!

We are very grateful to Lorraine and the volunteers from the Environment Agency for their enthusiastic hard work.

Since their effort, the work has been continued by local volunteers and the path now stretches nearly the full 500m between Little Thornage and the Common Cottages.

Ian Shepherd



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Late Spring



Marsh Marigold

As we all know for many species apart from ourselves this has been a late spring. The Marsh Marigold is the most noticeable 'wet meadow' and water edge plant. This year there are fewer plants flowering and they are about three weeks late.

Also delayed this year has been the annual movement of toads to their spawning ponds. The spring-fed pond at Glaven Farm is a well used site, and the first rush did not start until the night of the 19th March, and was then spread over the following week or so.

The journey of some was interrupted by falling down into the road drains. Residents at Little Thornage formed a patrol group with children's fishing nets and buckets to rescue them. Also picking them up of the roads, where some are run over every year.

News Items

- Len Bentley our Treasurer and Membership Secretary is relinquishing this role at the AGM. Len has been in this position since the inception of the RCGC. We are most grateful to him for his time and effort in these very necessary tasks. We are pleased to say the Tori Shepherd is willing to stand to take on this role, and Len would support her for the transition period.
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