



Newsletter

Spring 2015

2015 AGM at Cley

Our AGM and Launch of HLF Eel Project will be held at Cley Village Hall on **Saturday 13th June**, and following the formal business there will be the official launch and talk about the newly funded Eel Project on the River Glaven. The programme is:

2.30pm. The AGM formal business

3pm. Talk on the Eel Project

4pm. Tea and biscuits

4.30pm Option of viewing the tidal sluice, and viewing Blakeney Freshes from the sea wall walk

The eel project is a pilot scheme to be carried out on the Glaven. It is a £110,000 project, with the majority funded by the Heritage Lottery fund over a two year period, following a successful application by the Norfolk Coast Partnership to re-connect the present generation with the folklore and life cycle of the eel, and hear from the few remaining eel catchers, to add to our knowledge of the eel, and the role it plays in the ecology of the chalk rivers of the north Norfolk coast, and to improve river habitat and access for the eel. An important part of the project is about re-connecting local school children with the river, using eels as the focus.

Within living memory the coastal villages were well known for the amount of eels caught in the annual eel run. However In recent decades there has been a crash in the eel population across Europe, estimated at some 90% reduction. A whole range of reasons for this has been postulated, and it is very likely some combination of factors, one of which is the barriers to free passage by migratory fish between sea and river.

Our eels spawn in the Sargasso Sea, between Bermuda and Puerto



Rica. The larvae drift more than 3,700 miles in Atlantic currents and reach European rivers as small 'glass' eels, known as elvers. After five to 20 years in our freshwater rivers and ponds, perhaps longer, eels will then return to the Sargasso Sea and complete their life cycle. There appears now to be an up-turn in the prospects for our eel population; after a long absence, the spring run of elvers has re-appeared.

Eels can move across open ground for some distance to live in ponds and ditches. One aspect of the project will be to look at how many live in such water bodies compared to numbers in the main river. We have some indications of this already, with the data the Environment Agency has in their periodic fish surveys, the historic records being used as one indicator in assessing the ecological health of a river, and whether it is changing with time.

The 3pm session and onwards is

open to the public; so as members please invite any interested friends, and their children too. There is a strong community and educational element in the project.

In This Newsletter

The Catchment Restoration Fund three year programme finished on the 31st March. This gave a huge boost to major projects on the Glaven, and this can be seen at pages 4,5 where we summarise major activities on the Glaven over the past ten years.

The tidal surge of 5th December 2013 is still fresh in our minds. The article at pages 2,3 shows the good progress made in repairs to infrastructure at Blakeney Freshes, and the encouraging resilience and recovery of wildlife.

National Trust Blakeney Freshes

2015 Tidal Surge Recovery

George Baldock, Coastal Ranger



Since the storm surge of December 2013, there have been many promising changes to Blakeney Freshes after a period of uncertainty regarding its future. The site was flooded with saltwater for over three weeks, with around thirty breaches in the sea wall, some allowing regular spring tides to flow in. We needed to quickly prevent this happening to allow the recovery process to begin as the sea wall was not to be repaired until later in the year. To do this, temporary bunds were built around the breaches (photo 1) which successfully held back the tide on over ten occasions, preventing further inundation.

By February, after flushing the system of saltwater as best as possible, we started to see some positive signs.



Photo 1: temporary berms in action keeping the high tide out.

Photo 2: the kingfisher.

Photo 3 (opposite page top): the rebuilt Blakeney bank, lower but wider.

Photo 4 (opposite page lower): foot drain work in progress.

There were regular sightings of a Kingfisher, and we managed to catch it on camera with a fish (photo 2). Salinity levels were monitored regularly at fourteen different points around the site and by April had dropped back to relatively normal levels, in time for the breeding season and allowing the grazier to bring his cattle on.

The breeding season saw the usual breeding waders using the site with Lapwing, Redshank and Oystercatchers successfully fledging young and a Little Ringed Plover fledged one chick for the first time in over six years. Avocets took advantage of the shingle that was displaced from the sea wall and two nests were found but were unsuccessful. Two Marsh Harriers also fledged young from the reed bed.



Where saltwater was unable to drain from lows on the marsh, salt-marsh plants appeared including Sea Purslane *Halimione portulacoides*, Shrubby Sea Blight *Suaeda vera* and Sea Beet *Beta vulgaris*.

Work by the Environment Agency, to repair the sea wall around the Freshes started in August and finished in October. The new bank is now slightly lower with a more shallow profile (photo 3) so it should stay intact as and when the tide over-tops again. EA have also carried out surveys on the outfall sluices and also cleaned out the main channel through the site to ensure saltwater can be flushed out of the system quicker in the future.

Throughout the winter, Higher Level Stewardship (HLS) work was carried out on the site, with new culverts and sluices being installed, allowing us to have more control over water levels. There are now new scrapes and foot drains (photo 4) which have gone down well with the overwintering wild-fowl and we are now looking forward to seeing what these new features will entice onto the site over the next few years. As part of the HLS works, the main ditch through National Trust land was re-profiled by a contractor who spotted several eels whilst doing so. There also seems to be a good number of earthworms present which bodes well for this year's breeding season.

So far in 2015 there have been regular sightings of a Bittern and we are currently listening out for any boom-



ing. A Water rail is on site near Blakeney, which is great to see, after a number were found dead following the tidal surge. Otters have been seen on site and also caught on trail cameras. From April, we are starting a new butterfly transect which encompasses the Freshes, so it will be interesting to see trends in numbers as the site recovers. The breeding season has begun with the first few Lapwings nesting and will be followed by Redshank, Oystercatcher and Avocet in the next month. Barn owls are using their boxes and Marsh harriers are displaying.

Blakeney Freshes will still be recovering from the tidal surge for the next few years to come and we hope to see

an increase in number of different species. We are hoping to carry out more survey work on site, to give us an idea of what wildlife is using the site including supporting the eel project.

We will be having events throughout the year including a guided walk around the Freshes on 18th April and an evening talk at Blakeney Harbour Rooms on May 11th, both events will include details of the tidal surge and the recovery process. Please visit www.nationaltrust.org.uk/blakeney for more info or to book.

Pages 4-5 Newsletter references are S=Spring, A=Autumn, year by two digits. All on the website.

Ten Major Projects on

Ian She

Little Thornage 2006. The project was two years in planning and seeking financial support. River restoration measures and a meadow floodplain re-connection were carried out within a 1km length of river upstream of the Ford. The site work took three weeks. RGCG volunteers worked alongside consultant Vaughan Lewis to install riffles, river narrowing and woody flow deflectors at selected

Little Thornage 2008. The CWS meadows extend to about 27 acres. There had been no summer grazing for a number of years as the fencing was beyond repair and 'lost' in scrub and vegetation. It was replaced with 1920m of perimeter new fencing, after first carrying out a 'line clearance' with digger operator supported by RGCG voluntary labour. The mead-

Hunworth 2010. The stretch of river from the disused rail bridge to Beck Farm was the subject of a novel and innovative approach to river restoration. Sections of new channel were sculpted to provide a sinuous and narrower channel, within which a series of shallow riffles and deep pools were created and so provide the natural characteristics that had been 'ironed' out by widening and

White-clawed crayfish translocation 2011. In most chalk rivers in the greater south-east the native crayfish has been displaced by the non-native invasive Signal crayfish, damaging the ecology of the river. The invader out-competes the native species, and carries a disease fatal to it. The upper half of the Glaven has a thriving population of native white-clawed, likely due to the barrier of Letheringsett Mill. The Stiffey has neither native crayfish nor the

Bayfield Lake 2012. Over several decades the Lake had changed from supporting a sparkling wildlife to being 'dead'. This was due to the deposition of silt and high levels of nitrates and phosphates leading to excessive algal growth. The deep end of the Lake had 8ft of silt in 10ft of water. The silt layer was removed by suction-dredging by a contractor who had some years

points. The riffles were created by raising the river bed with tonnes of reject flint, and topping with gravel. This led to water crowfoot growing where before it was absent. The removal of historic dredged soil on the bank of one meadow so that flood water would be 'held back' generated wide spread interest. The spoil was spread on a nearby arable field. A06, ps 1-3, S06, ps 4-5; A07 pp 1,4-6.

ows are designated for their botanical interest; with huge national losses over the past 50 years, now a rare habitat. Cattle also bring insect and other wildlife as well as the wildflowers. The amount of bird life coming on to the site is noticeably more than the surrounding arable land; two pairs of barn owls breed. S08 pp 4-5.

deepening in the 1960/70s. These new sections were 'knitted' into retained parts of existing channel, and the 'redundant' sections back-filled with spoil – but not completely, as the lower part was left to form a backwater, making a habitat for invertebrates, and frogs to spawn. The opportunity was also taken to re-connect river and meadow, with bank soil spread on an arable field. A10, pp 5-10.

Signal. In the autumn of 2011 white-clawed were caught in the Glaven and a balanced group of sex and stage of maturity were released into the Stiffkey. The lower Glaven has suffered by Signal escapes from a pond above Watering Lane. Trapping has removed over 20,000 Signal over a period of 3 years, leaving hopefully a non-viable population; a massive commitment of daily visits by Robin Combe, who is licensed. A11, pp 4-6.

of experience on the Broads. Weed in the Lake was removed by a digger with pronged attachment, and this was followed by a suction pump, both set on pontoons. The silt was pumped on to an arable field which had been bulldozed to form tiers. The operation took four months to complete, and dried silt ploughed in. The project was funded by the CRF. A12, pp 4-5.



the Glaven 2004-2014

epherd



Glandford Mill 2013. River restoration was carried out in late 2012, and a fish pass inserted into a culvert under the Mill early in 2013. The historic Mill pond had become silt a metre deep, topped with a dense mass of rush. A new sinuous river channel was cut through the centre of this, and riffles and pools created between the Ford and the Mill. During this work the river was diverted to the original

course. The fish pass was made by a specialist manufacturer. The components were such that they could be taken apart and re-assembled on site in the restricted headroom of the culvert. The trajectory of the flow is such that trout can work their way upwards, and on one side is a line of plastic bristles so that eels can wriggle up. S13, pp 4-7.



Gunthorpe Stream 2013-2014. The stream rises at Gunthorpe and enters the Glaven at Hunworth. It is the longest tributary. Much is straight and uniform with a bed of sand and silt, with stone and gravel embedded in places. RGCG volunteers working with consultant Nigel Holmes put in place 11 variations of technique at Brinton Hall in one day, and 30 measures downstream of Thornage over

two days. Garden tools were used to separate stone and gravel from sand and silt and create narrow riffle area set above a widened pool area to create habitat variety in the channel. Adjacent woodland provided the wood materials to create various types of flow deflector, which also provide further benefits to fish and invertebrates. A13, ps 3-4; S15, p 8.



Selbrigg Pond 2014. This is a CWS. The Pond was made as a back-up reservoir for the operation of Hempstead Mill about 1830. Much of the silt entering the Glaven originates in the headwaters, and over decades silt level has built up in the Pond, and with it the advance of the reeds to cover most of the open water. The most immediate problem was to re-build the crumbling brick retaining wall, threaten-

ing to give way and empty the pond, with the water flowing over the road. This was done by driving steel sheeting in front of the wall, and backfilling with concrete. The reed line was pulled back to re-gain open water with some reed behind; and silt removed by suction dredging, as at Bayfield. The work, and collaboration with farmers in the upper Glaven, was done with CRF funding. S14, p 8.



Farmland Ponds 2014. The project was conceived by Carl Sayer of UCL and the RGCG, and inspired by work undertaken at Manor Farm Briston by Richard Waddingham. This has become the Norfolk Pond Project, involving a number of organisations. The ponds, originated as marl or clay pits, or livestock watering holes. Over the past 50 years or so they have suffered from land reclamation or ne-

glect resulting in encroachment by trees and vegetation. Back-filled they are known as 'ghost' ponds. Clearing them out sees a rapid return to an excellent habitat for wildlife – aquatic plants, invertebrates, amphibians and fish such as the native Crucian Carp. They also benefit mammals and birds, the latter likely through provision of insects. A14, pp 4-5.



Bayfield New River 2014. After 120 years of being under-grounded in a brick tunnel the river alongside Bayfield Lake was brought to the surface with a new channel. The aim of the 1890's work was to avoid rapid silting up of the Lake, which had been created on the original course of the river. We now have 1.2km of sinuous new river with thirty-one riffle and pond areas. Huge volumes of soil were

excavated and taken off-site to be spread on arable land, and some used to re-profile the meadow between the river and Lake. The tunnel is retained with some flow, both for heritage interest and use as by bats. We are not aware of anything on this scale being done before in England. It was funded by the CRF Nine Chalk Rivers programme. A14, pp 6-10.

New Wildlife Hide at Natural Surroundings

Ian Shepherd



Many of you will know Natural Surroundings at Bayfield, perhaps for its café, or as a plant centre for flowers and herbs that attract birds, bees and butterflies to the garden; or a wildlife site with a mosaic of habitats which borders on the River Glaven. The last is pleasant and interesting to the visitor, but also hosts many visits from schools on river studies field trips. Natural Surroundings covers some eight acres, and the habitats include the river, woodland, wet woodland, fen, ponds and grassland.

Because there is good access to the River Glaven at Natural Surroundings, both for the paying public and for schools, the Norfolk Rivers Trust supported the construction of a new educational wildlife hide, funded by the Nine Chalk Rivers Project. The hide is set beside to the river, and has views of the river, the grounds of Natural Surroundings and of the wider Bayfield Estate, with the valley sides covered by woodland and grassland, and downstream the Bayfield Lower Meadow extending to Glandford. The hide was formally opened on the 6th

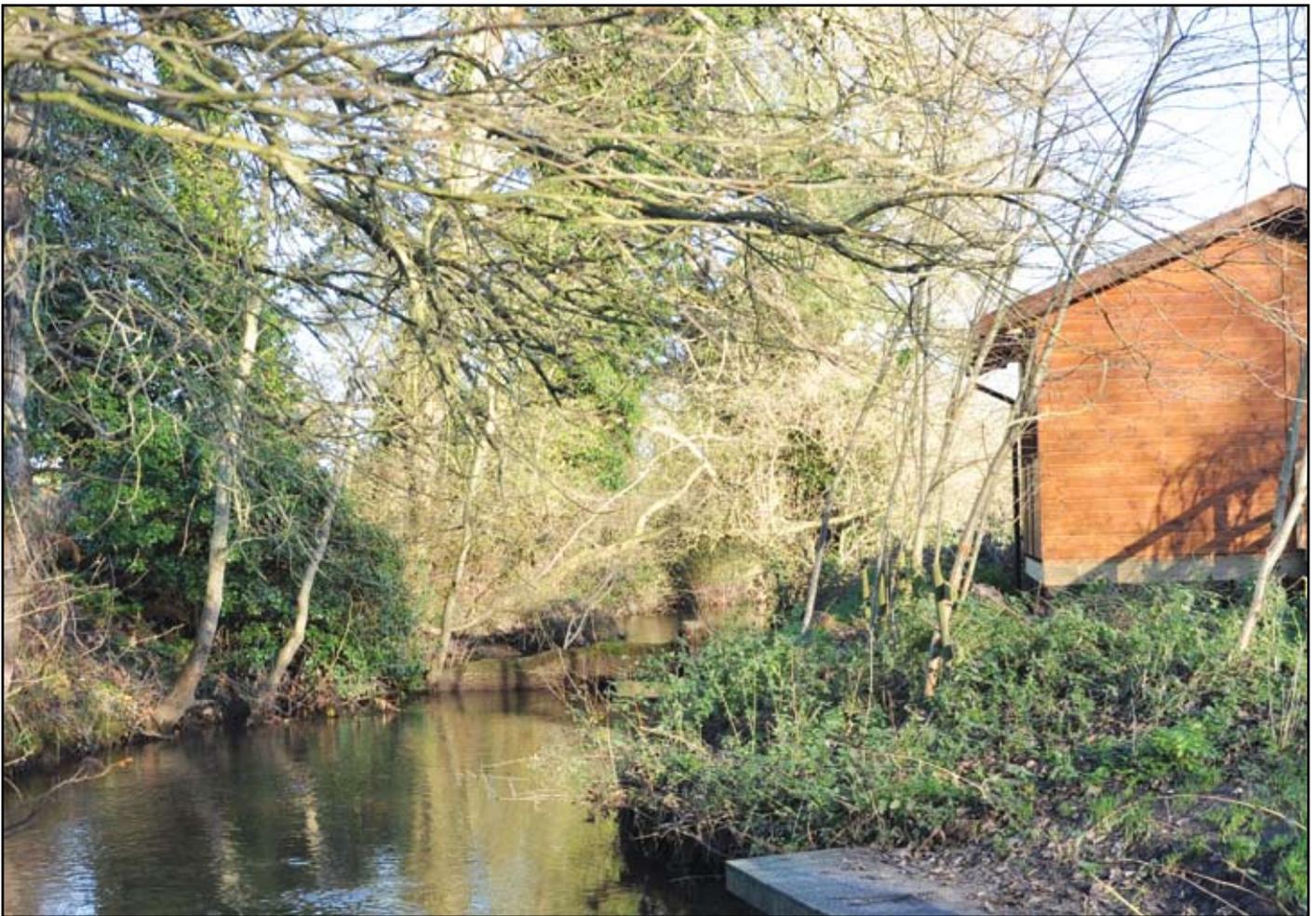
December 2014 by RGCG chairman Henry Crawley. Those who arrived early saw a sprinkling of very fresh sawdust near the entrance steps, and a little distance away three workmen with tools and some wood 'off-cuts' making their way off-site – a rural example of 'just-in-time' manufacturing.

The plans for the hide on the site, including planning permission, were some time in preparation by the NRT and Andrew Cannon, who stepped down from running Natural Surroundings in September 2014. Andrew, and Anne and Simon Harrap who took over the ownership and management of Natural Surroundings from September, were amongst the 35 or so who attended the opening, and had some mulled wine and a bite to eat on a cold but bright and sunny day.

This was full circle for Anne Harrap who, as Anne Starling, founded Natural Surroundings 25 years ago. She had moved on to other activities, but made her return in 2013 to take over the plant propagation and sales, then in September 2014 the whole business. Simon is a well-known wildlife expert, for many years a guide with

the UK-based bird tour company Birdquest, specialising in south and east Asia, Madagascar and southern Africa. His other interests are shown in the books he has published, including *Where to Watch Birds In Britain*, *The RSPB Pocket Guide to British Birds*, *Harrap's Wild Flowers* and, with Anne, *Orchids of British and Ireland: A Field and Site Guide*. Of particular relevance to Norfolk, Simon wrote *Flowers of the Norfolk Coast* and *Flowers of the Norfolk Broads*.

The Glaven attracts many schools on field trips with their students, often from well outside the county. Youngsters carry out water flow measurements and receive information on what lives in the river. Those studying A level Geography and Environment can easily visit the river from headwaters to the sea, and can learn a lot in a day. One of our RGCG aims is to further develop our web site, so students can find it easier to access; this has been in place for some time with Holt Hall, but our aim would be to cast the net wider, and reach others such as those who visit Natural Surroundings.



***Opposite page: the new hide at Natural Surroundings.
This page, upper: Henry Crawley, RGCG Chairman, performing the opening ceremony on 6th December last.
This page, lower: another view of the hide showing its proximity to the river.***

Housing Growth in Holt

The North Norfolk District land-use Strategic Plan was adopted in September 2008, and shortly the review and production of a new Plan will start. The horizon for the Plan will extend from 2021 to 2036. You may wonder what this has to do with the River Glaven, but the growth levels are of immediate interest as regards the capacity at Holt Sewage Treatment Works, and the discharge of effluent into the Glaven. Also over the 2036 time span, the impact on water resource in the chalk aquifer, with the public water supply borehole at Glandford. The aquifer of course is the source of water for the river and other water dependent sites such as Holt Lowes; and another important call on this underground reservoir are the needs of agriculture for spray irrigation. The latter is concentrated in the summer months, and coincides with the peak in visitor numbers. The same issues will arise for other rivers in North Norfolk, such as the Wensum and Stiffkey.

In the current Plan the housing growth for Holt was set for 700 new houses between 2008 and 2021, but with changes in the planning regime at national level, it has risen to at least 1,030, and 1,200 if a national developer obtains permission for 170 houses, now at Appeal after two refusals by NNDC. Due to the recession only about 330 of the 700 have been built to date. The review of the Plan will set the targets for housing and other development for the further 15 years after 2021 for the North Norfolk District. The process will take about 2.5 years, much shorter than on the first occasion with what was then a very new and different process. This time public consultation on the Core Strategy and Site Specific Proposals will be concurrent rather than sequential. The generic policies for housing, the environment and the economy, and policies for the determination of planning applications, will again form the Core Strategy; and the Site Specific Proposals document, as the name suggests, will determine the sites to be allocated for development.

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

Update on Gunthorpe stream project

The RGCG project to improve the river ecology of a major tributary of the Glaven was conceived in 2012 after a site visit and an appraisal document produced by the late Dr Nigel Holmes. This inspired us to seek consent to low key stream bed interventions with the aim of re-introducing variations in depth and flow of the stream and thus improving habitat for wildlife. The stream had been straightened and over widened with previous agricultural practice, and it was considered that natural reversal of this process very unlikely with the current 'energy' of flow.

The work began in 2012 and continued again in 2014 as reported in Spring 2014 newsletter. The project is more or less completed in stretches suitable for intervention. Monitoring of the work will continue and some adjustments of woody debris are contemplated. Nearly all the handworked 'dig and dump' interventions are functioning well; a few of the woody debris and deflectors have been significantly modified (but not destroyed) by seasonal flood; and the mechanical digger made narrowing and pool creations are all doing well.

The true test of the efficacy of such a project is an increase in quality or quantity of wildlife inland around the stream. A electrofishing survey was done before work commenced and we hope that this will be repeated soon.

Ian Shepherd and Tony Leech have now produced a second case study/manual on these techniques of low key intervention in stream bed morphology. Both the studies are now on our website and we hope they may be useful to other groups on smaller rivers such as the chalk streams of Norfolk.

The latest case study is dedicated to the memory of Nigel Holmes whose legendary knowledge of rivers taught us so much, and in gratitude for the practical help with the Gunthorpe project which was inspirational.

Our thanks go to the landowners who encouraged and agreed to this

work, and particularly to our great team of volunteers who turned up on some cold winters' days to help out.

Henry Crawley

News in Brief

Max Garret has stood down from the computer assembly of the Newsletter after 10 years, starting with our first one in Spring 2004. The Committee extended their warm appreciation for his great contribution to recording the activities of the RGCG, and communicating with both our members and interested 'external' bodies.

We welcome Richard Kelham, long-time Cley resident, as the successor in continuing this vital role. Many in the Glaven Valley will know of Richard for his stint as chairman of Cley Parish Council, his involvement with 'Made in Cley', and carrying out a similar role for the publications of the Blakeney Area Historical Society.

The RGCG responded in April to a national Environment Agency consultation on River Basin River Management Plans, in our case that for the North Norfolk Rivers Catchment as regards the Glaven.

RGCG volunteers spent a day helping to rake-off the cut fen vegetation at Natural Surroundings on the 20th February.

The quarterly meeting of the AONB Norfolk Coast Partnership was held at Bayfield on the 25th March, and included a visit to the 'New River' in the afternoon.

On the 26th November 2014 the Norfolk Rivers Trust hosted the annual conference of the national Rivers Trusts organisation. The meeting was held at Leiziate Lake View Park. Director David Diggins gave the introductory talk, and Jonah Tosney spoke on restoration projects on Norfolk Rivers.

Ian Shepherd

River Glaven Conservation Group

Henry Crawley Chairman 01263 713306

Ian Shepherd Secretary 01263 7113370

Anne Rolfe Treasurer & Membership Secretary

Web site www.riverglaven.co.uk