

## Norfolk County Recordors' Meeting

Tony Irwin

The annual Norfolk County Recordors' meeting took place in Norwich on 2<sup>nd</sup> December 2023, sponsored jointly by NNS and NBIS, with the support of the John Innes Centre, who kindly allowed us to use their recreation centre. This year, the invitation was extended to all the Society's members, and despite the icy conditions, it was attended by about 80 people. The theme of the meeting was *"Freshwaters: Recording Today for a Better Tomorrow"*.

Registration was followed by an opportunity to look at poster and tabletop displays, which included Norfolk scuttle flies (Mark Welch); prey of Norfolk wasps, mystery fossils from Fuerteventura, and acorns from Norfolk and Hay-on-Wye (all Nick Owens); Norfolk lichens (Rob Yaxley); Beeston and Sheringham Commons (Francis Farrow); photos from the NNS Photographic Group; flora of Broadland Country Park (Norfolk Flora Group); Milk-parsley status and disease (Swallowtail and Birdwing Butterfly Trust); dragonfly recording and citizen science (British Dragonfly Society); freshwater fungi (Norfolk Fungus Group); Mousehold Heath; and Sweet Briar Marshes – the proposed development of this new reserve (NWT).

Members at the Norfolk County Recordors' meeting enjoying the exhibitions



An excellent buffet lunch was enjoyed by all, and lots of chat kept everyone occupied until the talks started.

The Society's president, **Tim Holt-Wilson**, started the afternoon's proceedings with a welcome and introduction to the theme for the day. He reminded us of the wide variety of freshwater habitats in Norfolk, as well as the global perspective of threats to freshwater from climate change and pollution, before noting some of the ways in which the Society has been studying freshwater systems in Norfolk, and what might be done in the future.



Tim Holt-Wilson (NNNS President)

The keynote address from **Carl Sayer** (University College, London) was “*Norfolk’s wetlands, the challenge of change*”. After introducing us to what Norfolk’s rivers, ponds and floodplains might once have looked like before tree clearance and drainage, Carl reminded us of the problems faced by our current wetlands – pollution from chemicals and sediment, too much and too little management,



Carl Sayer delivering keynote address

invasive species, climate change, and a subsequent loss of biodiversity, both flora and fauna. On the positive side, restoration is possible, as shown in the Bodham ponds project, and several projects in Southern England where trees are felled into chalk streams to slow the flow and create meanders. Some large-scale re-meandering projects in Europe have failed to increase biodiversity, because they haven’t improved water quality at the same time. Natural processes are the most successful means of restoration. Re-profiling rivers to encourage flooding, introducing beavers to create rich habitat mosaics, and putting pressure on water companies to keep water clean, can all work together to tackle the challenges our wetlands face.

**Tony Leech** then took the chair for the first set of talks (“*Ecosystems and habitats*”), starting with **Tim Strudwick** (RSPB) who spoke about “*Protected Areas: are they effective?*” Tim reminded us that there are 163 SSSIs in Norfolk,

many of them included within larger designated sites, such as Ramsar Site, Special Area of Conservation, or National Nature Reserve, but too many others are isolated and needing improvement. Each site has designated features, and it is a criminal offence to “damage or destroy any designated feature” including “disturbance of designated animal species”. Consent to carry out work on an SSSI may be issued by Natural England, and both capital and revenue funding may be available for maintenance work. Notwithstanding this, the condition of SSSIs in England is not improving very much, with environmental problems such as groundwater abstraction, pollution, invasive species and climate change, adding to the load. In the Yare Marshes, floodplain fen and wet woodland are in decline, while in the Ant Valley, it’s floodplain fen and ponds that need attention.

**Duncan Holmes** (Broads Angling Services Group) presented an interesting talk on “*Recent threats to Norfolk’s wetland biota*”. In it, he explained in detail how salinity in the Broads can increase and stay high under certain conditions, with severe effects on fish stocks as well as invertebrate populations. He said that as a result of increased salinity, Grey Mullet have been found inland, as have European Bass. Occasionally, salinity readings at Acle can be as high as seawater, and drought decreases flow and increases the toxicity.

**Geoff Phillips** (University of Stirling) spoke on “*Managing our freshwaters: Europe to Norfolk*”, noting that the UK is a leader in freshwater strategies. He introduced the Water Framework Directive, a piece of EU legislation that still applies in Britain today. This focuses on integrated catchment management to protect and improve water quality, using a 6-year cycle of assessment, action and review. After two cycles (in 2018), only 40% of water bodies in Europe were good or better, using a mix of biotic and environmental criteria for assessment. Looking at the upper Wensum in more detail, Geoff noted that it scored well for fish and invertebrate communities, but was not so good on phytoplankton and macrophytes, possibly due to environmental pollution factors. It was difficult to envisage a solution to these problems, and the upper Wensum is likely to remain in a “moderate” condition for some time to come.

**David Harper** (University of Leicester) reviewed “*Effective use of citizen science: the role of naturalists*”. There are not many long-term datasets for freshwater systems, but currently, there are several citizen science projects that are monitoring freshwater habitats on a national basis. The RiverFly project is based on monitoring the presence of eight easily recognisable invertebrate groups in a timed net sample. The Smart Rivers initiative is similar but uses more detailed identifications. To maintain quality of data, validation by an expert is required. The UK Biodiversity Action Plan Priority Habitats project is led by Natural England, and involves volunteers, many of whom are local naturalists recording

flora and fauna of potential sites. In all of these projects, recording environmental factors is straightforward for volunteers using inexpensive digital monitors. In Norfolk, river chemistry is monitored on the Wensum and Bure; RiverFly monitoring is well-developed on the Wensum, while the Priority Habitats scheme is just starting. The Society's Freshwater Study Group has a site on the Yare, and is helping with identifications from the Wensum.

A tea and coffee break was followed by **Sue Gale** taking the chair for the second series of talks ("*Species and communities*").

The first speaker was **Dan Hoare** (Norfolk Freshwater Study Group) with the title "*Flourishing flora and invasive intruders: navigating the dynamics of aquatic ecosystems*". Globally the decline in biodiversity has been greater in freshwater than other ecosystems. From a good 19<sup>th</sup> century base, with specialist species such as Holly-leaved Naiad, the Broads suffered a significant decline in submerged macrophytes during the 20<sup>th</sup> century, but water quality has improved and plants such as stoneworts are making a comeback. On the other hand, there are new threats from invasive species like Floating Pennywort and Parrot's Feather, as well as the problem of increasing salinity and climate change. One of the predicted concerns is an increase in floating plants (e.g. the non-native Water-lettuce) as the climate warms, and the consequent loss of submerged macrophytes.

Next up was **Liam Smith** who presented a new recording app for use by naturalists, anglers and the public under the heading "*Challenges & future for Norfolk's freshwater fish*". Most freshwater fish records that NBIS holds come from organised surveys by the Norfolk Rivers Trust, or the Environment Agency. Concern that many potential records from the public, including the angling community, are being missed has prompted the development of a straightforward mobile phone app (that can also be used on computers). Standard observations on who, what, where, when are supplemented by notes on fish health and behaviour. There may still be reticence among some anglers to disclose where they are catching fish, but it's hoped that promotion in angling shops, with boat hire companies, and by word of mouth, will encourage submission of more records. Recorders will be able to access more information, including identification help.

**John Buckley** (County Recorder for herptiles) stepped in at short notice to deliver a talk prepared by John Baker (Amphibian & Reptile Conservation Trust), who was unable to attend. This was about "*Pond restoration and amphibian reintroductions*". John emphasised that re-introductions are a last resort – protecting existing colonies, and improving habitat are much more effective in amphibian conservation. Often natural colonisation will happen if the habitat is