



BADCOG NEWS.

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Close encounters of the biological kind

Everywhere in ecosystems there are relationships between species. Such relationships are in general referred to by biologists as one of symbiosis. However, the term symbiosis is more commonly used to refer to one specific type of this association (see below).

In parasitism one organism benefits at the expense of another. Fleas and ticks, feeding on the blood of vertebrates, are obvious examples of external parasites, while tapeworms live inside their hosts' digestive tracts, stealing nutrients. Yellow rattle, red bartsia, eyebrights and mistletoe are all Norfolk plants which steal some nutrients from other plants, while also photosynthesising. Dodder and broomrapes have gone a stage further giving up photosynthesis and deriving all their nutrition from a host plant. In commensalism one species benefits while the other is essentially unaffected. The large hoverfly *Volucella bombylons* develops inside a bumblebee nest. The larva eats nest debris and is thought to have no impact on its host.

The word symbiosis is most commonly used to mean mutualism, in which both species benefit. Such a relationship exists when flowers are adapted to particular pollinators which in turn have access to nectar because of their specific tongue shape. This example is fairly brief and well defined but others are life long such as the beneficial bowel bacteria. More recently the term "wood wide web" has been used to describe the micorrhizal network surrounding and penetrating tree roots aiding nutrient transfer in return for sugars. In addition nutrients are shared between related trees and possibly warning of threats.

Some organism have gone even further and co-exist within the same body. This is the case with lichens in which a fungus farms algae or cyanobacteria internally providing perfect growing conditions not otherwise attained for either species.

Adapted from an article in NWT Tern magazine by Nick Acheson.

Talk on The Northern Rivers by Dr Mark Collins.

November's talk was by Dr Mark Collins (retired from a career in ecology and conservation) now Chairman of The Research Committee for Norfolk and Norwich Naturalist Society, Commodore of the Northern Rivers Sailing Club and more...

This enlightening talk spanned the history of the northern rivers and broads areas including the rivers Bure, Thurne and Ant up to now and including a look at the future. At around 7,000BC this region was joined to mainland Europe by Doggerland: the Thames/Rhine was one long river and woolly mammoths roamed the marshlands.

In Roman times sea levels rose flooding Doggerland and there was a series of infiltrations of Jutes, Saxons, Angles, Vikings Normans from the mainland who built towns, castles and defensive structures. Acle was a trading and fishing port in Roman times. Building St Bennet's Abbey was started in about 800AD. Monks diverted the Thurne and built fishponds and a community. The rivers were used for transport particularly of wool which went to the Flemish weavers. Banks were built to create more land and wind pumps kept the water level low.

The design of the wherry (first built in 1600's and the last one in 1912) has Viking influences. These were used on rivers and the North Walsham and Dilham canal, which in 1826 had 6 locks and mills adjacent to them.

Now, with sea levels rising and some tilt to the land, 60% of the Northern Rivers area is below sea level and maintained by electric pumps and defences. The Broads have 200km of navigable water, 7 rivers, 63 broads of which 13 are open to navigation. The Broads, generally thought to be glacial lakes, were only proved to be flooded peat diggings by Joyce Lambert in 1952. The proof being the discovery of steep vertical edges which are indicative of digging, rather than a sloping lake edge. The edges of broads often follow parish boundaries as the peat was dug out to the edge of the parish from both sides*.

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By the 19th and 20th centuries, pollution of the rivers and broads from industrialization and intensive agriculture had damaged the ecosystems. Eutrophication from phosphates and nitrogen caused algal blooms which killed the plants living on the bottom of the broad. For example, in Hickling broad in the 1970's, the water weed had been killed to such an extent that sailing was unimpeded.

The Broads Authority was set up in 1989 to look after the Broads National Park and currently is funded 50% by boat tolls. Money from tourism and recreation is helping to keep the area cleaner and, for example Hickling Broad, clear for navigation by cutting the channels free of weed. Other improvements too can be seen at Barton Broad which was bought in 1945 and polluted mud pumped out in 1995. The North Walsham and Dilham canal, which had become destroyed by the 1912 flood is being restored by the NWDC Trust and the Upper Thurne is a Ramsar site with wetland protection. During the building of the floating visitor center at Ranworth, wherry Maud was discovered (having been used to shore up a bank) and was raised in 1981 and beautifully restored by the Pargeter family.

More recent challenges are coming from climate change. Tidal surges and floods are more frequent and cause salination of the water. The water levels, measured at Potter Heigham bridge have risen by 4" in the last 20 years. In September this year thousands of freshwater fish were killed by salt water in a huge tidal surge. Broadland Futures Initiative is a partnership for future flood risk management in the Broadland area. Looking at strategies, funding etc.

In our area we are experiencing hotter summers and wetter winters, which is estimated to increase over time. Without intervention, estimates of 50 cm water level rise in 50 years would put most of the sites where milk parley grows and hence the reproduction of the swallowtail butterfly at risk and a landscape not seen since Roman times.

Judith Robertson

*. Peat digging had been carried out since 12C. Norwich Cathedral monastery is recorded as using very large quantities per annum.

Eclectic Reflections from musing through past newsletters – continued

1983 – a group got together to restore Holly Lane Pond. This group became BADCOG.

2023 – this year it will be 40 years later. And we are still here!

From Feb 2001: At Railway Wood we completed the footpath revetment and planted three hollies and a rowan tree. We also did a litter pick. Railway Wood was itself dug out in 1880's, a 'borrow pit' to create the embankment towards Brundall, where the line crosses Lackford Run and the adjacent low lying land. It is doubtful if it was ever planted but oak, ash, hawthorn, wild cherry, holly, birch and, of course, one or two sycamores have found their way there. We have planted hazel, spindle, a yew and field maple in previous workparties.

From April 2001: The BADCOG Site Handbook, including descriptions of all our sites and how they are managed, has now been published and distributed to all members.

From June 2001: At Walsham Fen cetti's warblers and bullfinches have nested. 3 reed warblers nests (1 with 5 eggs) and 1 sedge warbler's nest have been noted along with the presence of blackcaps and chiffchaffs. Marsh harriers are using the fen for hunting and on one occasion a male was seen with a juvenile moorhen. Chinese water deer are also present.

From Mar 2003: BADCOG planted an area on Strumpshaw Closed Landfill Site, to screen the methane gas flame area right next to our Stone Pit site, for the council. We'd been offered help by some Quaker teenagers; they augmented the BADCOG stalwarts pushing the number of volunteers to 20. Together we planted 90 gorse, 60 broom, 80 mixed native shrubs and 10 6ft tall trees (3 silver birch, 3 hornbeams, 2 field maple and 2 rowan) – all staked, with rabbit guards and a final mulch of bark.

July 2002 – our 100th Newsletter.

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From Sept 2002: A few BADCOG members went to Walsham Fen, one evening in August, to see glow-worms. We weren't disappointed. As it got gradually darker, lots of pinpricks of greenish lights flickered among the grasses. It is the female glow-worm that emits this 'glow' from the underside of the abdomen. Being beetles without wings, they use this strategy to attract the winged male.

From Nov 2002: In October, 37 children attended our second 'Go Wild for a Day' event held at the Blofield Courtyard, with help from the NWT. Activities included making green men faces, an un-nature trail, mini beast hunts, a woodland creature quiz and games with an environmental theme.

From July 2002: In June, a third 'Go Wild for a Day' took place. The children had the opportunity to dissect owl pellets, make insects out of junk materials, make a wooden bird box, and play environmental games outside. In the afternoon, they were introduced to Ghost and Enoch, a barn owl and an Indian Scops brought in by a visitor from the Norfolk Wildlife Centre at Great Witchingham.

From Jan 2 004: We've had a couple of successful workparties at Lingwood Pond, giving it a general tidy up, but mainly coppicing the sallows and clearing fallen branches, some of which had rooted in the pond. A few native shrubs have also been planted around the perimeter – Guelder rose, Spindle and Dogwood – to improve the diversity of the site.

to be continued -----

Autumn fungi identification

The Red-cracking Bolette (right) was found in our garden at Blofield and the white saddle (left) in Blofield churchyard.



Pictures by
David Pilch



BADCOG WINTER TALKS:

**STRUMPSHAW COMMUNITY HALL,
Mill Road, Strumpshaw.**

13th January—Members evening

10th February—Check website for details

BADCOG Winter program of talks are held every 2nd Friday of the month from September to March (except December) starting at 7.30pm.

BADCOG WORK PARTY DATES

7th January—Lingwood Village Pond

21st January—Tree Planting, Wyngates, Blofield (see page 7)

4th February—Buckenham Woods

18th February—Walsham Fen

4th March—Howes Meadow

18th March—Holly Lane Pond

Work parties start at 10.30am and finish at about 1pm.

All welcome!

A moth rarely seen in the UK.

At least 100 Crimson Speckled moths have been spotted here in the autumn of 2022 having previously been recorded only 200 times in Britain during the past century.

In Kent alone about 30 have been recorded and more than 15 on the Suffolk coast including at Sizewell where there are fears about the damage a proposed new nuclear power station may do to wildlife in the area.

Other Crimson Speckled moths have been seen as far a-field as the Scottish borders, Cornwall and South Wales in a very remarkable moth migration to this country.

Possibly the exceptional weather has created the moth's first ever mass migration to the UK from its normal habitats in North Africa and the Mediterranean although there are other concerns that climate change may be a factor.



BADCOG Tree Planting at Blofield 21st January 2023

The WP on 21st January will be on the new parish land behind the Wyngates development. Over 100 trees are to be planted. Usual 10.30 start time although preparation will start earlier.

Wyngates is accessed from the Yarmouth Road. Travelling east from the King's Head it is on the left opposite Fox Lane. Drive through to the back of the development where there is parking.

Work Party Reports

Oct 29 – Walsham Fen – Areas D/E and both sides of the boardwalk in Area D/E, raked and cleared to spoil heaps. 7 members

Nov 12 – Snowdrop Acre – Summer nettle growth scythed raked and cleared. Grey poplar suckers, sycamore etc cut back. Fallen marabella plum sawn up into manageable pieces. Coppiced a hazel. All cut vegetation cleared to spoil heap and timber to wood piles. Litter pick mainly on roadside verge. 7 members

Dec 10 – Railway Wood – Nettle growth scythed – cut back vegetation to open up path to west end of site. Old blackthorn leaning over fence encroaching Network Rail property, dismantled. Old hawthorn hung up over some of our young trees, felled using chain saw and rope to ensure no damage to young trees. All cut vegetation raked and cleared to spoil heaps and timber to wood piles. 6 members

Additional Work Carried Out

Oct 08 – Howes Meadow – North boundary path, some clearance carried out. Moved some soil from fire site heap to bridge over stream to rebuild bank where it had been washed away.

Oct 09 – Howes Meadow – Cut bracken.

Oct 23 – Limpenhoe Church – Conservation area mown

Oct 25 – Blofield Church – Area SE directly behind church, strimmed raked and cleared cut vegetation to spoil heap.

Oct 28 – Lingwood Pond – Cut vegetation taken to Lingwood Bonfire Night site.

Oct 31 – Limpenhoe Church – Conservation area raked and cleared to spoil heap.

Nov 09- Walsham Fen – Remaining cut vegetation by the boardwalk from the Hide to the stream, and then on to second spoil heap on left, raked and cleared to spoil heaps.