

KINGHORN BIODIVERSITY MONTHLY REPORT - OCTOBER 2021



Sunset over the west end of the Loch near the bird hide, 21 October 2021. Photo Robert Mill.

October 2021 started off mainly mild to very mild, thanks in part to plumes of tropical air across the UK from the far south, but there was a short-lived very chilly snap on 21st. Thereafter Atlantic weather systems took over and the final week was very dull and often very wet indeed. In the 24 hours of 28/29 October, more than 60 mm of rainfall was collected in a friend's home weather station in North Queensferry, and on 29th the outflow from the threshing mill stream into the Loch burst its banks and overflowed on to the path on its way into the Loch.

During October another 19 species were discovered at the Loch. They comprised 1 leaf-mining moth, 1 caddisfly, 1 gall-forming sawfly, 1 bug, 2 leaf-mining flies, 5 flowering plants (including one tree!), 5 fungi (1 bracket fungus, 1 rust, 1 powdery mildew, 2 other ascomycetes) and 3 lichens. Historic records added in October as a result of more research in the literature included 1 fish (**Perch**, recorded in 1905: West, 1910), 1 snail (**Jenkins' spire-snail**: collected by Warwick in 1952: Russell-Hunter & Warwick, 1956), 5 flowering plants (full details in the 'Flowering plants' section below) and 1 (possibly erroneous?) stonewort (**Smooth Stonewort**: earliest records Woodforde, 1824 and Greville, 1824; also mentioned by Balfour & Sadler, 1863 but not listed by West, 1910 in his detailed study of the Kinghorn Loch flora), making a total of 27 new records. These brought the total known biodiversity (past and present) of the Loch area up from 1,221 (30 September) to **1,248** on 31 October. As in last month's report, 'new Loch record(s)' is abbreviated NLR.

AROUND THE LOCH Birds At least 43 bird species were recorded by me and others around the Loch in October. Migration continued; no **Swallows** were seen during the month. **Wintering ducks** started to arrive, with a pair of **Pochard** seen by myself on 6th and a drake **Goldeneye** reported by 'Tim Nic' on 28th (Kinghorn Loch Wildlife Group Facebook page, afterwards abbreviated KLVG). Numbers of **Little Grebes (Dabchicks)** continued to build up, with a maximum of 10 seen on 30th (Andy Pay), and the **Great Crested Grebes** remained till at least 15th. Fraser Nicol of TEC saw two **Jays** in the Den area on 14th. **Pink-footed Geese** flew over regularly (see also the Village section), with many on 23rd. A **Buzzard** was over the Loch on 15th, while there were also records of **Grey Wagtail** and **Treecreeper** (both 22nd, James Wrapson: KLVG). The full list of birds recorded at the Loch during October 2021 is: *Blackbird, Black-headed Gull, Blue Tit, Bullfinch, Buzzard, Carrion Crow, Chaffinch, Coal Tit, Collared Dove, Common Gull, Dunnock, Coot, Curlew, Farmyard geese*

hybrids, Feral Pigeon, Goldcrest, Goldeneye, Goldfinch, Great Black-backed Gull, Great Crested Grebe, Great Tit, Greenfinch, Grey Heron, Grey Wagtail, Greylag Goose, Herring Gull, Jackdaw, Jay, Linnet, Little Grebe or Dabchick, Magpie, Mallard, Moorhen, Mute Swan, Pheasant, Pied Wagtail, Pink-footed Goose, Pochard, Robin, Treecreeper, Tree Sparrow, Wood Pigeon, Wren.

Mammals and amphibians: A **Rabbit** ran across the track from the Loch into the hedge bordering the horse's field just east of the jetty area on 21st. Another Rabbit was attacked by a **Stoat** in the grounds of the Ecology Centre earlier in the month (Lee Brown, TEC). **Mole hills** were again evident in the grassy area just before reaching the fishermen's gate during October, after being either absent or not noticed over the summer months.

Invertebrates ('minibeasts')



Invertebrate records, October 2021. TOP ROW. Three views of the caddisfly *Hydropsyche siltalai* (6th, NLR). **BOTTOM ROW. Left:** Spiked Shield-bug (*Picromerus bidens*), 15th (NLR). **Centre:** Knopper Gall (*Neuroterus quercusbaccarum*), 6th. **Right:** One of six Red Admirals at the Craigencalt orchard, 6th. All photos Robert Mill.

Not surprisingly, **butterfly** numbers and diversity tailed off in October. At least six **Red Admirals** were in the area of the orchard below Craigencalt Farm on 6th, basking on fruit tree trunks in the sunshine or feeding on fallen apples. One was also seen on 15th. Two **Speckled Woods** were with the orchard Red Admirals on 6th. No **moth** trapping took place, but the mines of two leaf-mining moths were found the leaves of the beech hedge bordering the TEC access road on 15th: **Garden Midget** (*Phyllonorycter messaniella*: NLR) and **Small Beech Pigmy** (*Stigmella tityrella*). A **caddisfly** found on a fence above Craigencalt Farm on 6th was identified as *Hydropsyche siltalai*, a nationally very widespread species but nevertheless a NLR. Another **Common Darter dragonfly** was seen at the marsh boardwalk on 15th.

Probably because most flowering plants had more-or-less stopped flowering, **bees** were scarce in October. A **Common Carder Bee**, which in my experience always seems to fly for longer than most other species, was seen on 6th, and a **Common Wasp** on 15th. The galls of three gall-wasps, **Common Spangle Gall**, **Silk Button**

Spangle Gall and **Knopper Gall**, were all found on oak trees in the mixed larch / deciduous woodland to the north of the TEC access road on 6th. Two galls formed by **sawflies** were also found, including those of ***Euura bridgmanii*** on willow leaves at the marsh on 15th (NLR). A **Spiked Shield-bug** (***Picromerus bidens***) was found amongst the marsh vegetation on 15th, a NLR of a species that is gradually spreading northwards into Scotland. There are some previous records from Fife but none from the Kinghorn area. The leafhopper ***Edwardsiana flavescens*** was again found on the beech hedge (15th). No **beetle** species were recorded during the month, and somewhat surprisingly only one **hoverfly** species was recorded either: **Chequered Hoverfly** (***Melanostoma scalare***). Just six other **fly** species were recorded in October, all as their larval galls or leaf mines. Two of the leaf-mining flies, ***Agromyza pseudoreptans*** on Stinging Nettle and ***Phytomyza obscurella*** on Ground Elder, were NLRs.

Flowering plants and ferns



New Loch plant records, late September and October 2021: TOP ROW. Left: Milky Bellflower (*Campanula lactiflora*), 17 August 2021 and still with a few flowers in early October. Photo Paul Williams. **Centre:** French Cranesbill (*Geranium endressii*), 6th. **Right:** Sweet Chestnut (*Castanea sativa*), opened fruit with seeds on ground, 10th. **BOTTOM ROW. Far left and near left:** Polyanthus (*Primula polyantha*), 21st. **Near right:** Wood Sage (*Teucrium scorodonia*), 6th. **Far right:** Corn Marigold (*Glebionis segetum*), one of September's NLRs, photographed 4 October. All photos (except that of Milky Bellflower, top row left) Robert Mill.

Even fewer flowering plants remained in bloom during October than in September, and by the end of the month there was very little in flower. However, there were five NLRs made during the month. The most unexpected in some ways was **Sweet Chestnut** (***Castanea sativa***), whose shattered fruits and scattered seeds were lying on the ground beside Woodland Rise on 10th. The tree itself is at the edge of the TEC-managed woodland between Woodland Rise and the fishermen's path, but had gone unnoticed by me earlier in the year and had not been included on the BioBlitz list of 2018 either. Early in the month, Paul Williams sent me a photo of a plant he had found not far in from the start of the 'allotments track' up from the B923 at the western edge of the Loch on 17 August. I identified this as **Milky Bellflower** (***Campanula lactiflora***: NLR). According to Paul, there were still a few flowers present at the beginning of October. The other three flowering plant NLRs were **Wood Sage** (***Teucrium scorodonia***) on the track uphill from Craigencalt Farm (6th), and two ornamentals: **French Cranesbill** (***Geranium endressii***) close to the TEC sign at the beginning of the access road from Red Path Brae, which must have been in flower earlier in the season

but had been overlooked, possibly because other plants were then hiding it from view; and a beautiful blue form of **Polyanthus** (*Primula polyantha*) which appears to have arisen spontaneously just outside the TEC 'Sanctuary' area. This was also flowering out of season as the normal flowering period is in the spring.

As mentioned earlier, five historic records of flowering plants were added to the "Loch list" in October. These were:

- **Ivy-leaved Duckweed, *Lemna trisulca*** (Balfour & Sadler, 1863: not mentioned by West, 1910 so possibly already extinct by then)
- **Long-leaved Pondweed, *Potamogeton praelongus*** (Balfour & Sadler, 1863; specimens collected by the local botanist J.T.I. Boswell Syme in 1870 and 1872)
- **Red Goosefoot, *Chenopodium rubrum*** (specimens collected by Boswell Syme in 1870 and 1871)
- **Silver Hair-grass, *Aira caryophyllea*** (specimen collected by Boswell Syme in 1870)
- **Oval Sedge, *Carex leporina*** (specimen collected by Boswell Syme in 1870)

Fungi, lichens and bryophytes



New fungi and lichen records, October 2021. **TOP ROW:** **Left:** Elder Whitewash (*Hyphodontia sambuci*), 6th. **Centre:** *Septoria scabiosicola* on leaf of cultivated Scabious, 6th. **Right:** Mallow Rust (*Puccinia malvacearum*) on Dwarf Mallow (*Malva neglecta*), 15th (inset top left, part of same leaf viewed from above). **BOTTOM ROW:** **Left:** a resupinate bracket fungus, most probably Smoky Bracket (*Bjerkandera adusta*), 6th. **Centre:** the lichen *Cladonia* cf. *coniocraea*, 4th. **Right:** The lichen *Aspicilia contorta*, 6th (inset bottom right, enlargement of fruiting bodies that look like miniature barnacles). All photos Robert Mill.

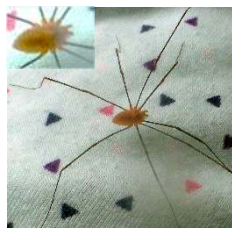
Eighteen fungal species were recorded in October, most of them repeat records from earlier months. Five of them, however were NLRs. These were a resupinate ('upside-down') bracket fungus most resembling **Smoky Bracket** (*Bjerkandera adusta*) on a tree near the marsh (6th); the powdery mildew *Golovinomyces cynoglossi*, on Field Forget-me-not on 6th (recorded by me last month near Lochside Grange on the same species, but first found at the Loch in October); a leaf spot of Scabious leaves, *Septoria scabiosicola*, on a cultivated scabious species in the orchard area near Craigencaft Farm (6th); **Elder Whitewash** (*Hyphodontia sambuci*) on dead elder branches at the Den area (6th, 15th); and **Mallow Rust** (*Puccinia malvacearum*) on

Dwarf Mallow (itself one of August's NLRs) on 15th. An orange-coloured form of **Lemon Disco (*Bisporella citrina*)** was on dead wood in the Den area (21st); the form found last month was more yellow.

Eight **lichens** were found in October. Three of these were NLRs: ***Aspicilia contorta*** on concrete steps (6th), with a hidden thallus and white fruiting bodies that look like tiny barnacles; ***Amandinea punctata*** on apple-tree bark (6th) and ***Cladonia cf. coniocraea*** on a tree-stump (4th). The species identity of the last-named is not quite certain but it most closely resembles that species.

The liverwort **Common Kettlewort (*Blasia pusilla*)** was found again (6th), well as the terrestrial alga ***Desmococcus olivaceus*** (6th) and the viruses **EMARaV** (on Rowan, 4th) and **RVCV** (on Raspberry, 4th).

IN AND AROUND THE VILLAGE



The harvestman *Opilio canestrinii*, 18th. (Inset, body close up). Photos Robert Mill.

Skins of **Pink-footed Geese** flew across the village most days and 1000 or more were on Mid Mire on 21st and 22nd. On 14th, there were two reports by different people of **Short-eared Owl** near the Burnside Path (KLWG). **House Martins** were photographed by Ronnie Mackie perched on wires on 17th; he commented that they were very late in leaving for their migration south to Africa. **Kestrel** was spotted three times between late September and early October, twice in the Red Path Brae / Craigencaft Cottage area and once between Banchory and Tyrie (J. Finn Weddle, KLVG). Slightly further away and beyond the usual geographic scope of my report, there was a sighting of a **Red Kite** over the Binn hill on 20th by Tim Reid (KLWG).

Ronnie Mackie (KLWG) also saw a **Peacock butterfly** considering his building project as a winter hibernation space. **Peacocks, Red Admirals** and **Small Tortoiseshells** all look for warm places to hibernate in winter, such as garages, sheds and spare rooms, so if you find one inside from now on please leave it alone until spring. The related **Comma** butterfly likes to hibernate in log piles.

A second **harvestman** species, this time the rather orange-coloured ***Opilio canestrinii***, was inside our house on 18th. I have not found any at the Loch so far, although I keep looking for them on tree trunks and other likely places.

DOWN ON THE BEACH AND COASTAL PATH



Coastal plants and insects, October 2021. TOP ROW. Far left, Honeysuckle (*Lonicera periclymenum*), 7th. **Near left**: Michaelmas Daisy (*Aster × salignus*), 7th. **Near right**: Common Toadflax (*Linaria vulgaris*), near Seafield, 7th. Inset: a minute Pirate Bug (?*Orius* sp.) in one of its flowers. **Far right**: Ivy (*Hedera helix*), 7th. **BOTTOM ROW. Far Left**: Elder berries (*Sambucus nigra*), Kinghorn, 7th. **Near left**: Black Nightshade (*Solanum nigrum*), 11th. **Near right**: Sea Buckthorn berries (*Hippophae rhamnoides*), 20th. **Far Right**: Drone Fly (probably *Eristalis arbustorum*) on Michaelmas Daisy, 7th. All photos Robert Mill.

Common Guillemots continued to be seen offshore during October (e.g., off Kinghorn on 11th) but in smaller numbers than in September. I was not as lucky as some other folk on my walks along the coastal path, seeing only the usual assortment of common waders such as **Curlew**, **Turnstone**, **Oystercatcher**. Three **Grey Plovers** were at Seafield on 18th (Tim Nic, KLWG) while on the same day **Long-tailed Ducks** were off the coastal path (Bruce Meldrum, KLWG). These are one of my favourite ducks, so I look forward to finding my own this winter. Earlier in the month a **Red-throated Diver** was off Seafield (6th: Paul Williams, KLWG). Pauline Bell (KLWG) photographed a **Wheatear** in the Seafield area of the coastal path on 10th, and Paul Williams saw a ringed **Rock Pipit** at Seafield around 5th.

A **Brown-lipped Snail** was seen on a Teasel stem at Seafield (20th).

Ivy (*Hedera helix*) began to flower in places along the coastal path, the first flowers being noted on 10th. These were being visited by both **Common Wasps** and **Common Drone-flies**. Amongst some ivy next to the railway south of Seafield, **Common Toadflax** (*Linaria vulgaris*) was in bloom (7th). This plant has in the past often been recorded along railway embankments and the coastal path ones have presumably spread from the embankment on the other side of the railings. **Hardy Fuchsia** (*Fuchsia magellanica*) continued flowering profusely on the path near the caravan park and three large clumps of **Michaelmas Daisies** (*Aster × salignus*) were in flower between the caravans and Kiln Rocks (7th). **Black Nightshade** (*Solanum nigrum*) was in flower both at the top and the bottom of the flight of steps down the cliff to the lifeboat station (11th) and **Sea Buckthorn** (*Hippophae rhamnoides*) was in fruit near Seafield. However, the berries seemed very sparse compared with bushes I have seen on the other side of the Forth at Aberlady.

A **drone fly** species, possibly *Eristalis arbustorum*, was visiting one of the Michaelmas Daisy clumps on 7th. On reviewing the photographs I had taken of the Common Toadflax the same day, I noticed a tiny **flower bug** (Anthocoridae) on one of the flowers. This was a **Pirate Bug**, probably a member of the genus *Orius*, but they are extremely difficult to identify to species so I haven't attempted to do so. They are similar to flower bugs like *Anthocoris nemorum* but much smaller.



Thin Tellin (*Tellina tenuis*), Seafield, 20th.
Photo Robert Mill.

Beach-combing turned up the usual mixture of **Cockle**, **Mussel**, **Limpet**, **Baltic Tellin** and **Razor Clam** shells at Pettycur and Kinghorn. The beach at Seafield had less variety although a complete specimen of **Thin Tellin** was found (20th), a species I have also seen at Pettycur.

Ronnie Mackie shared a couple of stunning photos (on KLWG) of an **Edible Sea Urchin** (*Echinus esculentus*), one of them with the urchin accompanied by a **Spiny Squat Lobster** (*Galathea strigosa*), the latter easily identified by the transverse blue lines across the body (clearly seen in his photo). Both were found off Kinghorn on 8th. Ronnie also shared photos taken the previous day of other local marine life including a **blenny** species, most probably a **Common Blenny** or **Shanny** (*Lipophrys pholis*).

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