

KINGHORN BIODIVERSITY MONTHLY REPORT - DECEMBER 2022 *by Robert Mill*



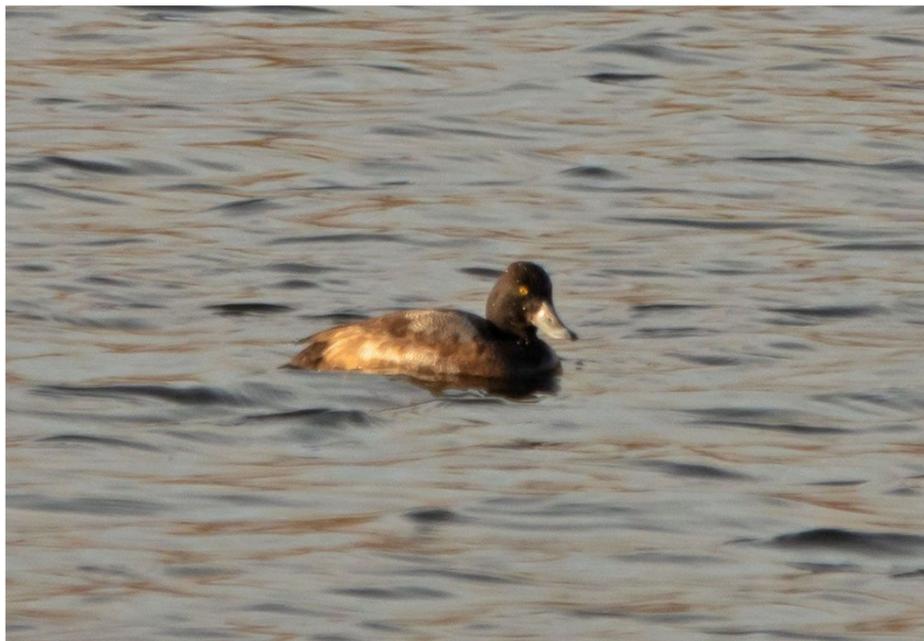
Melting ice at the edge of Kinghorn Loch near the dam after the cold spell, 20 December 2022. Photo Robert Mill.

It's been confirmed that 2022 has been the warmest ever in the UK since records began, for Scotland and the other individual nations as well as the UK as a whole (Met Office, 2023a). An average UK temperature of over 10°C was recorded for the first time; Scotland recorded an average of 8.5°C for the first time as well (Met Office, 2023a). December, however, was the year's only colder-than-average month. The first half was dominated by an Arctic air mass, with hard frosts, some snow in a few areas, and lots of clear skies and winter sunshine (Met Office, 2023b). In our area only 12.4 mm of rain or snow fell in that period (SEPA, 2023). In contrast, there was an abrupt change in the latter part of the month to Atlantic weather systems that in our area brought heavy rain with some severe flooding, particularly around Dunfermline where even more rain fell than in Kinghorn. Almost 85% of the 79.8 mm of rain collected in December at SEPA's rain gauge at Kinghorn Loch fell between 22nd and 31st, when 67.4 mm fell, nearly half of it (32.4 mm) in a 48-hour period between 0900 on 29th (when 14 mm fell) and 0900 on 31st. December's rainfall represented practically 12% of the year's total of 670.8 mm collected at the Loch rain gauge (SEPA, 2023).

Only two more species were added to the Loch's list in December, both of them birds. Therefore, the final total for the year (excluding things still unidentified) rose from 1,473 on 30 November to **1,475** on 31 December.

During 2022, the gross increase in the Loch list was 219 species: 8 mammals, 6 birds, 1 amphibian, 1 fish, 3 butterflies, 29 moths, 2 hoverflies and 14 other flies, 3 beetles, 8 bugs, 6 Hymenoptera (bees, wasps, ants or sawflies), 2 other insects (1 lacewing and 1 caddisfly), 5 Arachnida (spiders, harvestmen and mites), 5 slugs and snails, 64 flowering plants, 1 fern, 1 terrestrial alga, 7 bryophytes (mosses and liverworts), 36 fungi and 17 lichens. Four duplicated or incorrect entries were removed from the spreadsheet, giving a net increase of **215**, from 1,260 on 1 January to 1,475 on 31 December.

AROUND THE LOCH



First-winter drake Lesser Scaup (*Aythya affinis*), 15 December 2022. New Loch record. Photo Andy Pay.

Birds: An amazing total of **68** different bird species were recorded at and around Kinghorn Loch during December 2022. These included not just one but TWO new additions to the Loch's bird list, which now stands at 119 species. One of these, **Brambling** (three seen on 16th by Jared Wilson, eBird) was not unexpected given the very cold weather in the first half of the month. These lovely, mostly orange-and-black finches, winter migrants from Scandinavia, otherwise look rather like Chaffinches and the two species often occur in mixed groups or larger flocks in cold spells. The other new species was a rare vagrant North American duck, a first-winter drake **Lesser Scaup**, present from 2nd-28th and seen by numerous observers including Paul Williams (2nd, 7th, 19th), Graham Sparshott (the Fife bird recorder), Andy Pay (15th; see his photo above), Nigel Voaden (16th) and others. It's only the second time this species has been recorded in Fife (the first being in 2007: Fife Bird Club, 2014). Occasionally it moved to Beveridge Park in Kirkcaldy, as on Christmas Eve. This wasn't the only North American duck on the Loch in December, for the adult drake **Ring-necked Duck** present in early 2021 also returned for a ten-day spell from 9th-19th, when both visitors could be seen at the same time! There was a big influx of ducks of a variety of species at the Loch mid-month, such that Andy Pay was prompted to post on the Kinghorn District Wildlife Group's Facebook page on 19 December, "It's great to see the place looking so natural, with undisturbed flotillas of ducks of six species enjoying the open water. *It's such an important, even life-saving, site for them when most of the other lochs and reservoirs in the area are frozen ...*" (italics and bold mine – Ed.). Other ducks recorded on the Loch, apart from the resident **Mallards**, included **Goldeneye** (throughout, with 12 seen by Nigel Voaden on 16th), **Goosander** (a flock of 13 on 26th: Fife Bird News on Twitter), **Pochard** (either one or two drakes present for most of the month, seen by several observers), and **Tufted Duck**, whose numbers built up during the cold spell to a peak count of 125 on 17th (Jonathan Lethbridge, eBird). **Gulls** also featured strongly, since as well as the usual **Black-headed, Common** and **Herring Gulls** there was a **Great Black-backed Gull** present on 2nd (Paul Williams), a wintering **Lesser Black-backed Gull** on 7th, 9th, 19th and 31st (Paul Williams) and even a **Mediterranean Gull** (Fife Bird News, 14th; Jared Wilson, 16th). The latter is the third at the Loch this year (the others, of which I was previously unaware, were on 5th and 28th January: Fife Bird News) and one National Biodiversity Network database record. The juvenile **Great Crested Grebe** was only seen by myself (5th) but **Little Grebes (Dabchick)** were present all month, with 10 reported by Jared Wilson on 16th (eBird). The **Water Rail** was apparently only seen once (9th, Paul Williams). However, a **Common Snipe** was on the marsh area on 9th (Paul Williams) and between one and three **Woodcock** were seen (or accidentally flushed) there on 16th (Nigel Voaden), 19th (3, Paul Williams; 1, Danny Rumble, eBird),

20th (1, Tim Nicholson) and 28th (Fife Bird News). Other **waders** seen during December were **Curlew** (several dates throughout, the largest numbers being 22 on 2nd [Paul Williams] and 15 on 16th [Nigel Voaden]), and **Oystercatcher** (one on Christmas Eve, Francesca Bouaoun, eBird). **Grey Heron** and **Cormorant** were seen throughout the month, with four of the latter seen on 17th by Jonathan Lethbridge (eBird). The female **Kingfisher** that has visited regularly since October was seen several times between 9th and 27th by various people (including myself on 20th), with two birds present on 9th (Paul Williams). **Birds of prey** included **Buzzard** on four occasions (16th, Nigel Voaden; 22nd & 31st, Elaine O'Rourke; 26th, Paul Williams), **Kestrel** (7th, Paul Williams) and **Sparrowhawk** (31st, Paul Williams). **Winter thrushes** included flocks of **Fieldfares** on 2nd (Paul Williams, not counted) and 16th (15, Jared Wilson) as well as smaller numbers (1-4) on 17th (Jonathan Lethbridge) and 24th (Pauline Bell), a **Mistle Thrush** on 16th (Nigel Voaden) and **Redwing** (25 on 16th, Jared Wilson, smaller numbers on 17th (3, Jonathan Lethbridge) and 24th (2, Pauline Bell) and over ten on both 26th and 31st (Paul Williams). Five **Stonechats** were seen on 16th by Jared Wilson (eBird) while Andy Pay saw 6 **Meadow Pipits** on 17th. A very high count of 110 **Skylarks** was made by Andy Pay in a stubble field at the top of the Rodan Braes on 17th (about 200 were seen at the Loch on 9 February 2021 according to Fife Bird News, so Andy's impressive count is not actually a record for the Loch area), while ten were seen nearer the Loch the previous day by Jared Wilson. Both **House Sparrow** (16th, Nigel Voaden) and the more usual (for the Loch at least) **Tree Sparrow** (several dates throughout) were seen, as well as **Reed Buntings** (2nd, male, Andy Pay; 19th, Paul Williams) and **Yellowhammer** (20 flying across the horse pasture and landing in the trees by the Red Path Brae Path, Paul Williams on 2nd; 19th, Paul Williams). The full list of birds recorded at the Loch during December 2022 is: *Blackbird, Black-headed Gull, Blue Tit, Brambling (new Loch record), Bullfinch, Buzzard, Carrion Crow, Chaffinch, Coal Tit, Collared Dove, Common Gull, Coot, Cormorant, Curlew, Dabchick (Little Grebe), Dunnock, Farmyard / hybrid geese, Feral Pigeon, Fieldfare, Goldcrest, Goldeneye, Goldfinch, Goosander, Great Black-backed Gull, Great Crested Grebe, Great Spotted Woodpecker, Great Tit, Grey Heron, Greylag Goose (both wild-type and domestic), Herring Gull, House Sparrow, Jackdaw, Kestrel, Kingfisher, Lesser Black-backed Gull, Lesser Scaup (new Loch record), Long-tailed Tit, Magpie, Mallard, Meadow Pipit, Mediterranean Gull, Mistle Thrush, Moorhen, Mute Swan, Oystercatcher, Pheasant, Pied Wagtail, Pink-footed Goose, Pochard, Redwing, Reed Bunting, Ring-necked Duck, Robin, Rook, Siskin, Skylark, (Common) Snipe, Song Thrush, Sparrowhawk, Starling, Stonechat, Tree Sparrow, Tufted Duck, Water Rail, Wood Pigeon, Woodcock, Wren, Yellowhammer.*

Mammals, amphibians and fish: A **Stoat** in its winter ermine coat was seen by Paul Williams in the horse pasture on 31st. Fresh **Roe Deer** tracks were found by him in the marsh area on the same day. **Grey Squirrels** were reported on three dates and **Mole** hills were evident throughout the month.

Invertebrates ('minibeasts'): No invertebrates at all were recorded at the Loch during December, no doubt in part due to the either very cold or very wet weather.



Field Pennycress (*Thlaspi arvense*), 20 December 2022.
Photo Robert Mill.

Flowering plants and ferns: **Common Polypody** and **Male Fern** were the only **ferns** found during December. Twenty-five wild **flowering plant** species and 15 cultivated ones were in flower on 5th before the cold spell but these had been reduced to nine wild and three cultivated on 20th, after the cold snap, and several of those were only barely 'in flower'. Those that survived the cold included the **Chinese Mugwort** (*Artemisia verlotiorum*) that I had found last month, as well as **Field Pennycress** (*Thlaspi arvense*), **Shepherd's Purse** (*Capsella bursa-pastoris*), **Water Avens** (*Geum rivale*) and **Bristly Ox-tongue** (*Helminthotheca echioides*).

Cryptogams

A **moss** known as **Grey-cushioned Grimmia** (*Grimmia pulvinata*), the fungi **Conifer Mazegill** (*Gloeophyllum sepiarium*), **Common Jellyspot** (*Dacrymyces stillatus*) and **Turkeytail** (*Trametes versicolor*) and the **Common Orange Lichen**, *Xanthoria parietina*, were the only cryptogams recorded during December.

VILLAGE, BEACHES AND COASTAL PATH Once again, both **Common (Harbour)** and **Grey Seals** were seen off the coastal path from Seafield to Kinghorn by Paul Williams. Paul recorded 39 bird species at Seafield and the coastal path in December, including another **Little Auk** on 3rd as well as a **Kingfisher** and a **Red-throated Diver**, six **Red-breasted Mergansers** on 24th and a **Goldeneye** on 31st (as well as another Merganser). Other birds seen by him there in December were **Common Scoter**, **Bar-tailed Godwit**, **Purple Sandpiper**, **Rock Pipit** and **Reed Bunting**.

Graham Sparshott carried out four bird migration watches in December, all from East Braes (<https://www.trektellen.org>). Skeins of **Pink-footed Geese** flew southwest on all four occasions, the largest being 100 on 20th, and three **Lapwing** flew SW on 13th. Nineteen **Long-tailed Duck** were at the site on 29th as well as three **Herring Gulls** of the Scandinavian race *argentatus* (the common British one is *argenteus*; differences are subtle but include slightly darker grey wings in *argentatus*).

On 19th I saw a female **Kestrel** fly out from scrubland near Mid Mire and briefly hover before settling out of sight on the escarpment just in from the eastern edge of the field. Elsewhere that day I found the most unexpected botanical find of the month – a fruiting plant of **Stinking Iris (*Iris foetidissima*)** with a few orange seeds left. Ballantyne (2002) gives its Fife status as “rarely planted, or relic”; the latter (‘relic’) would better



Left and centre: Winter Heliotrope (*Petasites pyrenaicus*), coastal path, 21 December 2022. Centre photo shows frost-blackened leaves in an open situation. **Right:** Stinking Iris (*Iris foetidissima*), outskirts of Kinghorn, 9 January 2023. Photos Robert Mill.

describe its status at the site where I found it as it was not somewhere one would deliberately plant anything. I went back on 9 January with my camera and managed to photograph the one remaining seed. On 21st I went along the coastal path from the village as far as

the small beach below Linton Court, just before Seafield Tower. **Lesser Periwinkle (*Vinca minor*)** and **Winter Heliotrope (*Petasites pyrenaicus*)** were both in flower, the latter with frost-blackened leaves, especially where not sheltered. The following day I went down to the beach and harbour area in the village. The **Fulmars** had apparently vacated the cliffs but their place was taken by at least 15 **Rock Doves** clinging closely to tiny ledges on the cliff face. A small number of them are normally present when the Fulmars are nesting but there were far more that day. Also on 21st, I was delighted to find **Purple Sandpipers** on rocks at the foot of the cliffs – normally I have to go to Seafield to find them, but there they were at the end of the village’s own beach! Several **Long-tailed Ducks** were calling off the harbour wall and a **Grey Heron** was on the beach before flying over to the harbour. On the last day of the year, my wife Andrea and I went to Pettycur, where we were treated to superb views of two very handsome drake **Long-tailed Ducks**, one of them accompanied by a female. There was also another Scandinavian race **Herring Gull (*Larus argentatus argentatus*)** perched on a rock close to the car park wall with a British race bird (*L. a. argenteus*).

References

- BALLANTYNE, G.H. (2002). *Wild Flowers in Fife and Kinross*. Fife Nature.
- FIFE BIRD CLUB (2014). *Checklist of the birds of the mainland Fife recording area* (5th edition). Fife Bird Club.
- MET OFFICE (2023a). Climate change drives UK’s first year over 10°C. <<https://www.metoffice.gov.uk/about-us/press-office/news/weather-and-climate/2023/climate-change-drives-uks-first-year-over-10c>> accessed 6 January 2023.
- MET OFFICE (2023b). Cold December concludes warmest year on record for UK. <<https://www.metoffice.gov.uk/about-us/press-office/news/weather-and-climate/2022/very-mild-autumn-keeps-2022-on-track-to-be-the-warmest-year-on-record>> accessed 5 January 2023.
- SEPA (2023). Data for the Kinghorn Ecology Centre Rainfall Gauge, available online at <<https://www2.sepa.org.uk/rainfall/>>, accessed 5 January 2023.