

## KINGHORN BIODIVERSITY MONTHLY REPORT – JUNE 2023 by Robert Mill



**Destroying fungus:** This fly has been parasitised and killed by the fungus *Entomophthora muscae* (new Loch record, 16 June 2023), which causes gross abdominal swelling and various changes in behaviour – see page 6. Photo Robert Mill.

In 2023, June flamed. The Met Office (2023) has confirmed it as the hottest June on record for the UK as a whole, as well as for Scotland. It was also the sunniest June, nationally, since 1957 and the fourth-sunniest on record. However, in the first half of the month “west was best” for warmth and sunshine, with the eastern half of the country being cooler and less sunny; later in the month, though, the eastern side was warmer than the west. Daily maximum temperatures were at or below the long-term average in our area on 1st-2nd, 4th-9th, 27th, and 30th, and above average on 3rd, 10th-26th, 28th and 29th, with the period 12th-26th being exceptionally above average (Met Office, 2023). In the second half of June, the long warm sunny and dry period, caused by persistent high pressure, that had started in May gave way to Atlantic weather fronts that brought much needed rain. At Kinghorn, the Ecology Centre rain gauge managed by SEPA registered no rain in June until 18th, other than 0.8 mm on 10th. However, on 18th there was a deluge of 37.2 mm, more than half the month’s final total of 68.8 mm, the rest of which was spread fairly evenly between 19th and 30th.

It was another excellent month for new Loch records – 31 in all (abbreviated NLR). These comprised 2 birds, 1 wasp, 4 flies, 1 bug, 3 beetles, 2 spiders or mites, 1 horsetail, 8 flowering plants and 9 fungi. The grand total thereby increased from 1,517 (31 May) to **1,548** on 30 June. A few others remain unidentified so the total could increase.

**AROUND THE LOCH Birds:** A very high total of 65 species was recorded around Kinghorn Loch in June. They included two additions to the Loch bird list, both on 2nd. The first was **Stock Dove** by Paul Williams who saw one fly across the B923 from Grangehill into the woods at the Loch’s SW corner (and also another, or the same, Stock Dove near the covered reservoir above Craigenalt Cottages on 5th). I had been expecting that species to turn up at the Loch eventually, since moving here from Edinburgh where they are regularly seen and heard (even in our old back garden there!) and I have sometimes heard their distinctive song in Kirkcaldy parks. June 2nd’s other new Loch bird record was totally unexpected: a **Corn Bunting** seen by Graham Sparshott (the county bird recorder for Fife) flying out of one of the Craigenalt Farm fields near Red Path Brae and over Mid Mire towards Kinghorn. Corn Buntings breed in the East Neuk area where they appear to be doing well, so maybe this bird was prospecting the local fields with a view to expanding its Fife range. This Red-listed species would be a wonderful addition to Kinghorn’s birds were it to settle somewhere in the area. Apart from these two additions, the month’s most notable bird record was of two **Common Sandpipers** on one of the rafts near the hide (29th, Paul Williams). The **Shelduck** paid another visit (2nd, Paul Williams and myself) and up to three **Tufted Ducks** were on the Loch (five dates between 4th-14th, Paul Williams). A few **Black-headed Gulls** finally trickled back to the Loch from breeding grounds from 22nd onwards; **Common Gull** was also recorded after a break of a few weeks for breeding. A **Great Black-backed Gull** was amongst the

mixed gull flock on 7th and 8th. Sadly, though, a dead gull was off the dam wall towards the end of the month; at present it's not known if this was due to bird flu, which is affecting seabirds all down the east coast this year, or if another cause was the reason. The **Great Crested Grebes** at the west end of the Loch built a new nest and began a second brood, while another pair nested among the bulrushes near the sluice and raised at least one chick (often called 'humbugs' on the Kinghorn District Wildlife Group [KDWG] Facebook, because of the resemblance of their black-and-white striped backs to the sweet!). A pair of **Dabchicks (Little Grebes)** also built a nest at the west end and mated (7th); unfortunately, they abandoned the nest a few days later. At least one **Jay** was around the hide on 2nd (Tim Nicholson), 5th and 8th (Paul Williams); on one of Paul's visits there was a commotion at the feeder involving two Jays, plus Carrion Crows and a Magpie. A single **House Martin** visited the Loch during June (22nd, Paul Williams), thus at last getting on to its 2023 year list, while **Sand Martins** were seen on 15th and 29th and small numbers of **Swifts** on 2nd (three or four) and 23rd (one) by Paul Williams. A fledgling **Tawny Owl** was found by Mizera Martin [KDWG] on 1st, while two **Buzzards** were seen on 29th and one on 5th, **Kestrel** three times and **Sparrowhawk** on 15th (all by Paul Williams). A **Curlew** and 6 **Lapwings** were seen near Red Path Brae at the east edge of the Loch recording area (25th, Graham Sparshott). One or occasionally two **Grey Herons** were present most days, no doubt hoping for a meal of grebe chick or ducklings. **Grey Wagtails** were seen on 7 occasions and **Pied Wagtail** on four. Paul Williams also saw **Reed Bunting** on 4 dates and **Yellowhammer** on 6. The full list of birds recorded at the Loch during June 2023 is: *Blackbird, Blackcap, Black-headed Gull, Blue Tit, Bullfinch, Buzzard, Carrion Crow, Chaffinch, Chiffchaff, Coal Tit, Collared Dove, Common Gull, Common Sandpiper, Common Whitethroat, Coot, Corn Bunting, Curlew, Dabchick (Little Grebe), Dunnock, Farmyard / hybrid geese, Feral Pigeon, Goldfinch, Great Black-backed Gull, Great Crested Grebe, Great Spotted Woodpecker, Great Tit, Greenfinch, Grey Heron, Grey Wagtail, Greylag Goose, Herring Gull, House Martin, Jackdaw, Jay, Kestrel, Lapwing, Lesser Black-backed Gull, Linnet, Long-tailed Tit, Magpie, Mallard, Moorhen, Mute Swan, Pheasant, Pied Wagtail, Reed Bunting, Robin, Rook, Sand Martin, Shelduck, Skylark, Song Thrush, Sparrowhawk, Starling, Stock Dove, Swallow, Swift, Tawny Owl, Treecreeper, Tree Sparrow, Tufted Duck, Willow Warbler, Wood Pigeon, Wren, Yellowhammer.*



**Mammals, amphibians and fish:** Thousands of baby **Common Toads** ('toadlets') covered the woodland paths near the Forest School (24th, Paul Williams) with many still there two days later. **Roe Deer** were seen on 2nd and 12th. Paul photographed a black **Rabbit** on Cow Hill (8th; see his photo at left) and ordinary brown ones were often seen. **Brown Hares** were spotted by Paul Williams (6th, 29th) and by Tim Nicholson (10th). A very large **Brown Rat** was seen by Paul Williams (8th). **Grey Squirrels** were frequently seen; **Mole** hills were widespread.

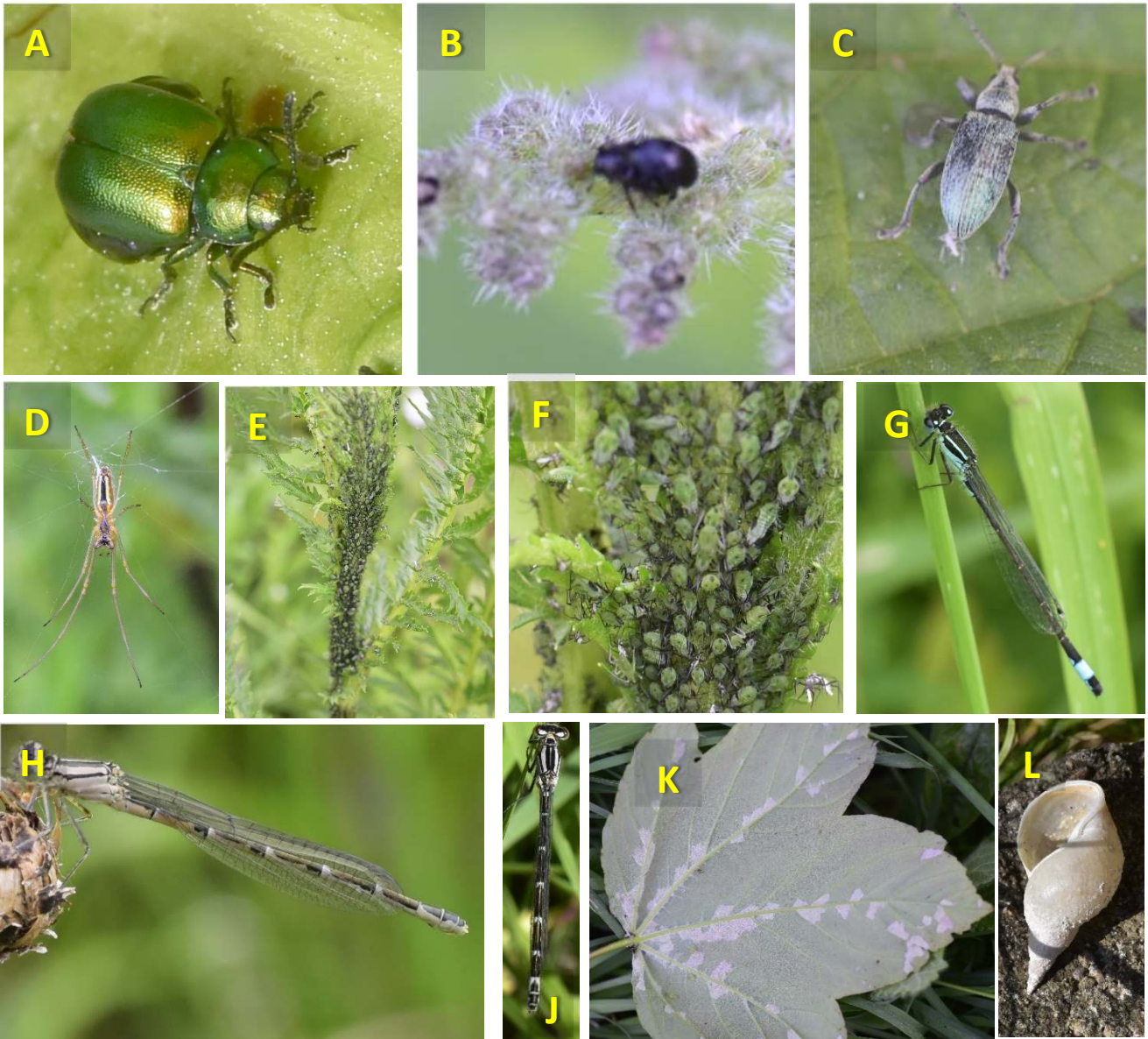
**Invertebrates ('minibeasts'):** As might be expected, far more invertebrates were around in June than in May or April. No less than eight **butterfly** species were seen. The most notable was a **Wall Brown** basking near Craigenalt Farm on 12th (Paul Williams). This indicates that, this year, the Wall Brown has finally penetrated the main Loch recording area; one seen last August, just within the Kinghorn boundary on the track between the Loch and the Binn by Andy Pay (Mill, 2022), was at its western edge. **Meadow Browns** and **Ringlets** were seen by myself (22nd, 23rd) and also by Paul Williams while **Speckled Woods** were recorded by myself (3rd, 23rd) and Elaine O'Rourke (22nd). **Red Admirals** were present on at least four dates but the only record of **Small Tortoiseshell** was on 12th by Paul Williams. The last record of **Orange-tip** was made by myself on 2nd but **Small White** was seen regularly. Three **day-flying moths** were noted: **Cinnabar** on 11th (Stuart Munn, KDWG) and 23rd (myself), **Silver-ground Carpet** by myself on 16th and **Nettle-tap** by myself on 22nd. Nine Hymenoptera (bees, wasps, ants etc.) were recorded including **Large Red-tailed Bumblebee** on several dates from 8th and **Tree Bumblebee** on 2nd and 22nd. There was also another sighting of **Chocolate Mining Bee** (8th). A parasitic wasp, **Aphidius microlophii**, was a NLR (14th). This parasitises **Common Nettle Aphids** causing mummification; the wasp itself was not seen but one of the 'mummies' caused by it was.

Like May, June was another good month for **hoverfly** records with 13 species reported, although numbers of individuals still remained rather low until the wetter weather began. Andy Pay recorded five species on 19th (*Eristalis horticola*, *Eupeodes corollae*, *Leucozona laternaria*, *Parhelophilus* sp. [probably *P. versicolor*, later collected elsewhere at the Loch by Brian Little], *Scaeva pyrastris*). I recorded **Common Drone-fly** (*Eristalis tenax*) and **Common Snout** (*Rhingia campestris*) on 2nd, a **Syrphus** species (most probably **Humming Syrphus**, *S. ribesii* as the eyes were not hairy) on 8th, **Buttercup Blacklet** (*Cheilosia albitarsis* agg.) on 14th,



**June Loch invertebrates (1):** **A**, Wall Brown (*Lasiommata megera*), 12th (photo Paul Williams). **B**, Speckled Wood (*Pararge aegeria*), 23rd. **C**, A Common Nettle Aphid mummified by the parasitic wasp *Aphidius microlophii*, 14th (wasp NLR). **D**, Yellow Dung-fly (*Scathophaga stercoraria*), 23rd, NLR. **E**, Tiger Crane-fly (*Nephrotoma flavescens*), 23rd, NLR. **F**, Black-striped Crane-fly (*Tipula vernalis*), 1st, NLR. **G**, the hoverfly *Rhingia campestris* under a Herb Robert flower, 2nd. **H**, mine of *Phytomyza ranunculivora*, 16th, NLR. **J**, the fly *Helina impuncta*, 8th (first known record since 2018). **K**, gall on elm leaf caused by Elm-currant Aphid (*Eriosoma ulmi*), 8th, NLR. All photos except **A** by Robert Mill.

**Furry Drone-fly (*Eristalis intricaria*)** on 22nd, **Marmalade Hoverfly (*Episyrphus balteatus*)** on 23rd, and various colour forms of **Narcissus Bulb-fly (*Merodon equestris*)** on 2nd, 8th and 23rd. June's final hoverfly records were two of **Pied Plumehorn (*Volucella pellucens*)** on 19th (Andy Pay) and 22nd (Elaine O'Rourke). I was able to identify twelve other flies, four of which were NLRs: **Yellow Dung-fly (*Scathophaga stercoraria*)** on 23rd, two more crane-flies (**Tiger Crane-fly *Nephrotoma flavescens*** on 23rd, and ***Tipula vernalis*** on 1st) and the larval mine, on Creeping Buttercup leaves, of ***Phytomyza ranunculivora*** (16th). In addition to these, ***Tipula fascipennis***, the Loch's 1,500th recorded species (see last month's report) was found again on 1st, 2nd and 16th, while ***Helina impuncta***, a distant ally of the common house-fly, was found on 8th, five years since the last known record by Ali Shuttleworth at the Loch's BioBlitz in June 2018. The greenbottle mimic, ***Gymnocheta viridis***, was spotted again on 16th and 23rd and apart from the newly recorded ***Phytomyza ranunculivora*** the mines of three other leaf-mining flies were found. Six different bugs were recorded, **Elm-currant Aphid (*Eriosoma ulmi*)** being a NLR; its galls were found on elm leaves on 8th. **Larch Woolly Aphid** seemed quite abundant on larch trees this year, and large gatherings of **Tansy Aphids** were found on Tansy (1st, 8th). **Common Nettle Aphid** and one of its predators, a yellow-and-black bug known as ***Liocoris***



**June Loch invertebrates (2):** **A**, Green Dock Beetle (*Gastrophysa viridula*), 8th, NLR. **B**, Nettle Pollen Beetle (*Brachypterus glaber*), 16th, NLR. **C**, Nettle Weevil (*Phyllobius urticae*), 16th, NLR. **D**, Common Stretch-spider (*Tetragnatha extensa*), 1st, NLR. **E & F**, An agglomeration of Tansy Aphids (*Macrosiphoniella tanacetaria*), 1st. **G**, Blue-tailed Damselfly (*Ischnura elegans*), 8th. **K**, white blotch-galls on Sycamore leaf underside caused by the gall mite *Aceria pseudoplatani*, 2nd, NLR. **H & J**, Common Blue Damselfly (*Enallagma cyathigerum*), young (**H**) and older (**J**) blue-form females, 8th and 2nd respectively. **L**, Great Pond Snail shell (*Lymnaea stagnalis*), 22nd. All photos Robert Mill.

(which protects the larva before it becomes an adult bug) remained abundant all month. Five **beetles** were found, three being NLRs. These were **Green Dock Beetle (*Gastrophysa viridula*)** on 8th, and both **Nettle Weevil (*Phyllobius urticae*)** and the tiny **Nettle Pollen Beetle (*Brachypterus glaber*)** on their host, Stinging Nettles, on 16th. The pollen beetle was also found on 23rd, after searching for it unsuccessfully in 2021 and 2022. The remaining two beetles were both soldier beetles: the first of this year's **Red Soldier Beetles** was seen on 8th (also on 22nd) while the mainly blackish *Cantharis nigricans* was found on 16th. **Common Blue Damselflies** were abundant all month and **Blue-tailed Damselflies** were seen on 8th, 9th and 23rd. A 'nursery' of baby **Earwigs** was found under a stump during a guided walk on 23rd. A **Common Stretch-spider, *Tetragnatha extensa*** (1st), was a NLR, as was *Aceria pseudoplatani*, a gall-mite whose whitish galls were found on the undersides of Sycamore leaves on 2nd. Three other, previously recorded, gall-mites were also found during June, as well as a comparatively very large 'red spider mite' that remains unidentified. No **land snails** were recorded but both living and dead **Great Pond Snails (*Lymnaea stagnalis*)** were seen.

## Flowering plants and ferns:



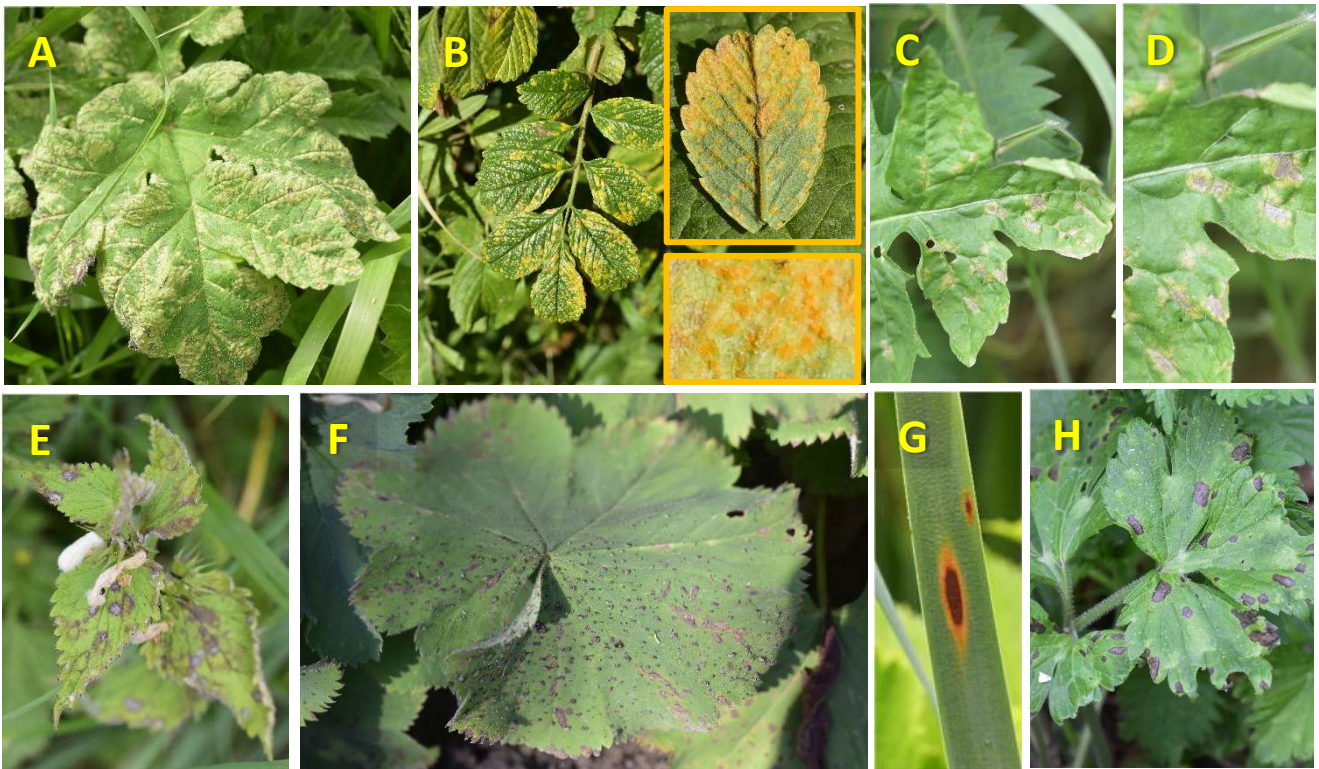
**New plant records at the Loch, June 2023.** **A**, Marsh Horsetail (*Equisetum palustre*), 16th. **B-D**, Pedunculate Oak (*Quercus petraea*), 2nd, NLR, compared with Sessile Oak (*Quercus robur*): **B**, leaves of Sessile Oak (left) and Pedunculate Oak (right) showing very short and much longer stalks respectively. **C & D**, Leaf under-sides of **(C)** Sessile Oak (no hairs) and **(D)** Pedunculate Oak (short greyish hairs). **E**, Common Rock-rose (*Helianthemum nummularium*), 6th. **F & G**, Common Twayblade (*Neottia ovata*), 16th: **F**, whole plant showing the two leaves near the base; **G**, flowers close up. **H**, Clustered Bellflower (*Campanula glomerata*) with Hedge Bedstraw (*Galium album*; small white flowers), 22nd. **J**, Broad Bean (*Vicia faba*), 2nd. **K & L**, Virginia Creeper (*Parthenocissus quinquefolia*), 9th (**K**, leaves; **L**, tendrils close up). Photos Robert Mill.

Three horsetails (one of them, **Marsh Horsetail – *Equisetum palustre*** on 16th -- being a NLR), six ferns, 203 wild or naturalised flowering-plant species of which 177 were in flower (including 8 NLRs), and 53 obviously cultivated flowering-plants were noted during my June visits to the Loch. The eight flowering-plant NLRs in fact included two trees. First of all, native **Pedunculate Oak (*Quercus petraea*)** was found to be frequent along the Rodanbraes track (2nd); it had previously not been recorded. In fact, the one oak already on the Loch list had never been identified beyond 'Oak (*Quercus* sp.)'! I therefore established that the oaks in the mixed plantation between the Craigencalt and TEC access roads are all **Sessile Oaks (*Quercus robur*)** which, although a UK native, is not native to Scotland, unlike its close relative. The two species can be separated on leaf characters alone: Sessile Oak has sessile (stalkless) leaves without any hairs beneath, whereas Pedunculate Oak has obviously stalked leaves that have fairly dense short hairs on the lower surface (see photos **B**, **C** and **D** above). The other new tree record was **Copper Beech (*Fagus sylvatica* f. *purpurea*)** which for some reason had been overlooked in the beech hedge along the TEC access road; it is more obvious,

though, when recording the plants on the Kinghorn Community Land Association side of the hedge, as I did on 1st and two other dates in June. Herbaceous NLRs included **Pignut (*Conopodium majus*)**, again along the Rodanbraes track (2nd); **Common Rock-rose (*Helianthemum nummularium*)**, of which I was delighted to find a very few plants within the Loch recording area on 6th, on a tiny rock outcrop that must be calcareous as the species needs base-rich soil; **Common Twayblade (*Neottia ovata*, or *Listera ovata* in most older botanical books)**, an orchid of which I found a single plant very near the Loch edge in an area I had never previously explored (16th); and **Clustered Bellflower (*Campanula glomerata*)** which appeared on the ‘tadpole’ roundabout in front of the TEC building (22nd). TEC staff assured me that it had not been planted there. It is rare in Fife: the checklist by Ballantyne (2002) stated, “now possibly only at Pettycur (Kinghorn), except for an odd stray plant here and there”. Since moving to the area two years ago I have found most of the Pettycur specialities but not Clustered Bellflower. Along the ‘Great North Road’ track, a plant of **Broad Bean (*Vicia faba*)** was found in flower near the allotments but some distance away on the opposite side of the track (2nd). The final, and very unexpected, addition to the Loch list was **Virginia Creeper (*Parthenocissus quinquefolia*)**, clambering up an old wall at the SW boundary of the Loch recording area where the ‘Great North Road’ track joins the main road (2nd, 9th). Its occurrence suggests that the wall might have been the boundary of a former house but none is marked at the spot on all old Ordnance Survey maps I have checked, dating back as far as 1856, so it is a mystery how it got to be in such an out-of-the-way place. **Oxford Ragwort (*Senecio squalidus*)**, one of May’s NLRs, was found again on 1st but, as mentioned in last month’s report, its site was cleared of plants shortly afterwards.

Many plants do not start flowering until around the time of the summer solstice, so June saw a transition from the last spring/early summer ones to those of mid- to late summer. Selected first-flowering dates in June 2023 were **Goosegrass (*Galium aparine*)**, 7th (2022, May 22nd); **Lady’s Bedstraw (*Galium verum*)**, 6th (2022, 23rd); **Yellow Stonecrop (*Sedum acre*)**, 6th (2022, 16th); **Field Scabious (*Knautia arvensis*)** and **Bladder Campion (*Silene vulgaris*)**, 8th: 2022, 30th for both); **Meadow Vetchling (*Lathyrus pratensis*)** and **Water Forget-me-not (*Myosotis scorpioides*)**, 8th (2022, 23rd in both cases), **Amphibious Bistort (*Persicaria amphibia*)**, 9th (2022, 4th); **Nipplewort (*Lapsana communis*)**, 14th (2022, 4th); **Bittersweet (*Solanum dulcamara*)** and **Hedge Woundwort (*Stachys sylvatica*)**, 14th (2022, 16th for both species); **Agrimony (*Agrimonia eupatoria*)**, 22nd (2022, 30th); **Field Thistle (*Cirsium arvense*)**, 22nd (2022, 4th, two-and-a-half weeks earlier); **Ragwort (*Jacobaea vulgaris*)**, 22nd (2022, 16th); **Rest-harrow (*Ononis repens*)**, 22nd (2022, 16th); **Meadow Cranesbill (*Geranium pratense*)**, 22nd (2022, July 4th); and **White Clover (*Trifolium repens*)**, 29th (2022, 27th). Unlike the plants that first flowered in May, most of the above species started flowering several days earlier than when first noted last year although one or two, such as Goosegrass and Nipplewort, were later. **Feverfew (*Tanacetum parthenium*)** behaved very oddly in 2023; flower-buds were first noted as early as 9th January but, no doubt due to the cold spring, these appeared to abort and flowering was not observed until June 22nd, about the same time as two years earlier in 2021 (26th). In 2022, flowering began very much earlier, on March 22nd.

**Cryptogams** Twenty-one different **fungi** were recorded during June, nine of which were NLRs, as well as a large toadstool on a willow bough that so far has not been identified. The most bizarre, illustrated at the top of page 1, was ***Entomophthora muscae*** (16th). This attacks flies belonging to the family Muscidae (house-fly family) and related families; from the small ‘spot’ (actually a very short cross-vein) and line on each of its wings and the brownish legs with spiny projections, the one I found may have been ***Helina impuncta***, a healthy individual of which I found on 8th. The fungus infects the fly through its abdomen and gradually consumes all the fat body within the fly, sparing other organs such as the gut, nervous system etc., at least initially. Later it causes changes in the fly’s behaviour. It causes the fly to move to an elevated position on a plant, attach itself to the plant with its proboscis, grasp it with its legs as well if the plant stem is thin like the Goosegrass stem to which the one I found was attached, and the wings to spread out, thus exposing the fly’s abdomen. The abdomen swells up hugely and turns white with darker bands. (All these aspects, other than the proboscis, are visible in my photograph on page 1). Finally, fungal reproductive structures called **conidiophores** pierce through the fly’s abdomen as hair-like projections and forcefully eject the infectious ‘spores’ (**conidia**) into the environment to infect another fly (summarised from Elya & De Fine Licht, 2021). Some of these conidia can be seen as tiny pale yellow dots near the fly’s tail.



Some new Loch fungi records, June 2023. **A**, *Taphridium umbelliferarum* on Hogweed, 1st. **B**, the rust, *Phragmidium tuberculatum* on Japanese Rose, 22nd (inset top, leaflet underside; inset bottom, underside enlarged). **C & D**, the leaf spot *Septoria sisymbrii* on Hedge Mustard, 1st. **E**, a white mould, *Ramularia lamii*, on White Dead-nettle leaves, 1st. **F**, *Ramularia aplospora* on Garden Lady's-mantle, 22nd. **G**, *Pleospora typhicola* on Bulrush leaf, 8th. **H**, *Entyloma eburneum* leaf-spot on Creeping Buttercup, 1st. All NLRs. All photos Robert Mill.

Apart from the 'fly-destroying' fungus, I found Champion Smut, four mildews, five 'white moulds', four rusts, one leaf-galling fungus (*Taphridium umbelliferarum*, 1st, NLR) and five other leaf-spots during June. Six of the other seven new Loch records were the rust *Phragmidium tuberculatum* on Japanese Rose (22nd), the 'white moulds' *Ramularia lamii* on White Dead-nettle (*Lamium album*) (1st) and *Ramularia aplospora* on Garden Lady's-mantle (22nd), and the leaf spotting fungi *Entyloma eburneum* on Creeping Buttercup (1st), *Septoria sisymbrii* on Hedge Mustard (1st), and *Pleospora typhicola* on Bulrush (8th, also 22nd). The final one, found on Foxglove leaves, has not been precisely identified but is most likely one of *Ramularia digitalis* or *Septoria digitalis*; neither has been previously recorded from the Loch. Three different lichens and EMARaV virus were re-found and a small area of green scum caused by cyanobacteria ('blue-green algae') was on the Loch just west of the jetty on 23rd, towards the end of the very warm sunny spell.

### VILLAGE, BEACHES AND COASTAL PATH



Lion's Mane Jellyfish (*Cyanea capillata*), Pettycur, 12th.  
Photo Robert Mill.

Before mentioning the birds seen around Kinghorn, Pettycur and district during June, I must highlight a record from May that I've only recently become aware of: a **Little Egret** 'on the rocks near to the train stop' at Kinghorn on May 8th (David Tanner, eBird). These attractive white heron-like birds first bred in Britain in 1996 on the south coast of England; since then, they have established breeding colonies in many parts of England and Wales and are becoming a commoner sight on Scottish coasts, with breeding first taking place in 2020 (Mearns & Mearns, 2020). David Tanner's record is the second from Kinghorn in just over six months, the last being one seen off Kinghorn on 22 November 2022.



Four of seven Teal (*Anas crecca*), Seafield, 19th. Photo Paul Williams.

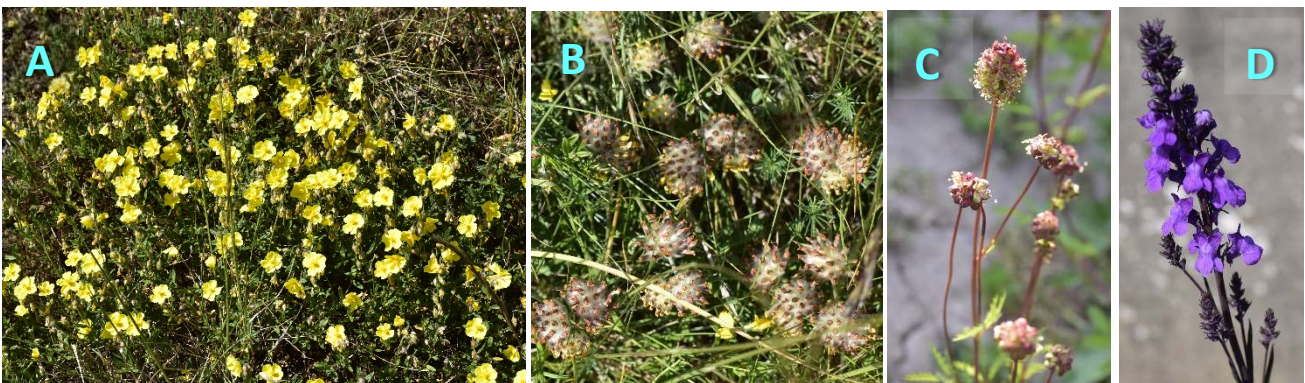
Apart from Graham Sparshott's **Corn Bunting** sighting from within the Kinghorn Loch recording area, by far the most outstanding bird seen in the Kinghorn district in June was a **Red Kite** spotted by Paul Williams near Seafield Tower on 22nd, flying towards Kinghorn. An out-of-season **Red-throated Diver** was off Pettycur on 20th (Paul Williams). **Puffins** were seen off Pettycur on 16th, 17th (more than 20) and 20th by Bruce Meldrum, off Kinghorn on 25th (three seen by Jim Hain), and off the coastal path in the Seafield area (24th and 27th, Paul Williams). **Black-headed Gulls** returned to the coast from 8th onwards, much earlier than at the Loch, with 30 off Pettycur on 10th (Iain Downie). **Fulmars** remained on breeding cliffs at Kinghorn and Pettycur. Other seabirds recorded included **Razorbill** off Seafield (4th, Paul Williams), **Common Guillemot** off Pettycur (5 on 10th, Iain Downie) and Seafield (Paul Williams on three occasions including one dying, apparently from bird flu), **Common Terns** on 20th (Pettycur, Bruce Meldrum) and 22nd (Seafield, Paul Williams) though Paul commented that numbers seemed to have collapsed – there are reports of widespread bird flu in gull and tern colonies this year (British Trust for Ornithology, 2023). **Goosanders** were off Seafield on 12th, 22nd and 24th and a juvenile **Kittiwake** was also there on 12th (Paul Williams). More than 80 **Red-breasted Mergansers** were off the Kinghorn section of the coastal path on 25th (Gavin Williamson). As well as the **Shelduck** seen at the Loch on 2nd, two were at Pettycur on 10th (Iain Downie) and one was seen off the coastal path near Kinghorn on 17th (Tim Nicholson). Seven **Teal** were at Seafield on 19th, an unusual species for the area (Paul Williams). The only **Lesser Whitethroat** record was one along the the Fife coastal path (25th, Gavin Williamson); **Sedge Warblers** were also seen or heard along the Seafield section all month (Paul Williams) and at the pond beside the Burnside Path on 5th. The only notable **marine mammal** was a **Minke Whale** seen off Kinghorn by Sam Tedcastle (KDWG) on 25th. **Common** and **Grey Seals** remained on the rocks off Seafield all month.



Sea Potato (*Echinocardium cordatum*), Kinghorn beach, 21st. Photo Robert Mill.

Paul Williams recorded **Red Admiral** and **Common Blue** butterflies at Seafield on 14th and **Orange Tip**, **Small White**, **Meadow Brown** and **Wall** butterflies there on unspecified dates. I also saw **Common Blues** at the bottom of the cliffs at Pettycur on 12th, as well as a **Red Admiral** that on 21st was visiting nettle leaves at the top of Kinghorn beach, probably egg-laying. The most notable **day-flying moth** seen around the village was a small seemingly all-black one along the Burnside Path on 22nd that I recognised as a **Chimney Sweeper** (*Odezia atrata*) but was unable to photograph as it was so active.

Less frequently recorded **marine life** included part of a **Sea Potato** (*Echinocardium cordatum*) washed up at Kinghorn beach on 21st. **Lion's Mane jellyfish** were washed up on the beaches at Pettycur (12th) and Kinghorn (21st), and a **Moon (Common) Jellyfish** at Pettycur on 12th.



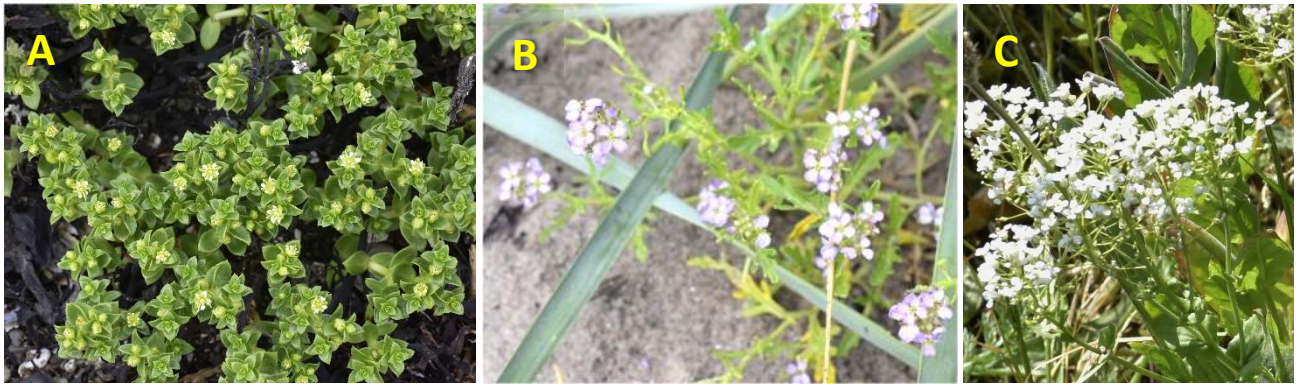
Plants found in and near Kinghorn away from the coast, June 2023. **A**, Inland population of Common Rock-rose (*Helianthemum nummularium*), 6th. **B**, Inland population of Kidney Vetch (*Anthyllis vulneraria*), 6th, at same location as **A**. **C**, Salad Burnet (*Poterium sanguisorba*), Burnside Path, 12th. **D**, Purple Toadflax (*Linaria purpurea*), village, 12th. Photos Robert Mill.





**Plants of coast and country, June 2023.** **A & B**, Common Comfrey (*Symphytum officinale*), Grangehill farm, 9th (**A**, cream form; **B**, purple form; both found together). **C**, Seaside Daisy (*Erigeron glaucus*), cliff at Doo Dell Path (Kinghorn), 12th. **D-G**, Two forms of Buckshorn Plantain (*Plantago coronopus*): **D & F**, Kirk by the Sea, Kinghorn, 5th; **E & G**, Pettycur, 12th; **E & F** are enlargements showing divided and linear leaf forms respectively and hairiness. **H**, Procumbent Yellow-sorrel (*Oxalis corniculata*), Kirk by the Sea, 12th. **J**, Opium Poppy (*Papaver somniferum*), Pettycur, 12th. **K**, Candytuft (*Iberis umbellata*), Pettycur, 12th. Photos Robert Mill.

Plants that I had not found around Kinghorn in either 2021 or 2022 included **Salad Burnet (*Poterium sanguisorba* or *Sanguisorba minor***, depending on the nomenclature you follow) and **Goatsbeard (*Tragopogon pratensis*)**, both of which were found along the Burnside Path on 9th (the former also on 12th). Another 'new' plant was **Procumbent Yellow-sorrel (*Oxalis corniculata*)** on the churchyard wall of the Kirk by the Sea (12th). This is a larger ally of Least Yellow-sorrel (*Oxalis exilis*) which I have found at Craigencaht. A relatively large inland population of **Common Rock-rose (*Helianthemum nummularium*)** was found on 6th together with a few other calcicole species such as **Kidney Vetch (*Anthyllis vulneraria*)** and **Wild Thyme (*Thymus drucei*)**, both which I also know mostly from the coast, growing on what must be a base-rich rock outcrop north of Kinghorn. **Kidney Vetch** was also found near Kinghorn harbour (12th), **Wild Thyme** along the Kinghorn stretch of coastal path (5th) and at Pettycur (12th), and both **Common Rock-rose** and **Wild Thyme** (but not Kidney Vetch) at the foot of the cliffs at Pettycur (12th). It has turned out to be an exceptionally good year so far for **Wild Clary (*Salvia verbenaca*)**; a minimum of *one hundred* flower spikes could be seen, through binoculars, high up on an inaccessible cliff north of Kinghorn, where **Common Rock-rose** was also growing, on 5th in what is by far the largest (and safest) population of this rare species at present known to me, while on



**More coastal and countryside plants, June 2023.** **A**, Sea Sandwort (*Honckenya peploides*), beach at Hoch-ma-Toch below coast path, 5th. **B**, Sea Rocket (*Cakile maritima*, pale lilac flowers) amongst Marram Grass at Seafield, 19th. **C**, Hoary Cress (*Cardaria draba*), golf course track, 9th. Photos Robert Mill.

9th it was refound along the Burnside Path near where I had seen a couple of plants last autumn, as well as some stunted plants near the golf course, while on 12th I found 20 flowering stems at Pettycur.

Some of the highlights of a long walk beside the track across the golf course and to the B923 via Grangehill on 9th were **Hoary Bittercress (*Cardaria draba*)**, **Field Bugloss (*Lycopsis arvensis*)**, and **Fox-and-Cubs (*Pilosella aurantiaca*)** in rural countryside much further away from civilisation than I am accustomed to finding it. On the same walk, both colour forms (purple, and creamy-white) of **Common Comfrey (*Symphytum officinale*)** were found growing together just beyond Grangehill Farm. On my only visit to Pettycur in June (on 12th), as well as the species I have also mentioned, I found **Marram (*Ammophila arenaria*)**, **Thrift (*Armeria maritima*)**, **Sea Rocket (*Cakile maritima*; also with Marram at Seafield, 19th)**, **Hoary Cress (*Cardaria draba*)** and **Field Bugloss (*Lycopsis arvensis*; both possibly connected by dispersal to or from their populations by the golf course track high above)**, both **Common** and **Danish Scurvy-grass (*Cochlearia officinalis*, *C. danica*)**, **Seaside Daisy (*Erigeron glaucus*)**, **Bloody Cranesbill (*Geranium sanguineum*; also by the coastal path on 5th)**, **Candytuft (*Iberis umbellata*)**, **Rest-harrow (*Ononis repens*)**, two quite large populations of a dark red colour form of **Opium Poppy (*Papaver somniferum*)**, **Buckhorn Plantain (*Plantago coronopus*)** and a large mass of **Tuberous Comfrey (*Symphytum tuberosum*)**. Taking the long flight of steps that form the coastal path's 'High Tide Route' at Pettycur, I found many fruiting plants of **Alexanders (*Smyrniolum olusatrum*)** near the top of the cliff next to the steps, **Wall Barley (*Hordeum murinum*)** by the pavement by the cemetery below, and a plant of **Californian Poppy (*Eschscholzia californica*)** that had escaped from an adjoining garden on to the pavement.

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