

# 2022 Scotland County Dragonfly Recorder Reports



British  
Dragonfly  
Society



# Scotland

## By Pat Batty

The weather in Scotland this year varied considerably between east and west after a cool dry start in the spring. In the west it was wetter throughout the summer than in 2021. However, in the east there were longer periods of dry sunny weather resulting in some dragonfly pools becoming dry. During the end of 2022 - start of 2023, it has been very wet and pools have definitely refilled.

**Large Red Damselfly** was first reported later in 2022 on 17 April.

**Common Blue Damselfly** were recorded from 10 May, slightly earlier than last year, both **Common Blue Damselfly** and **Large Red Damselfly** are fairly widespread.

**Four-spotted Chaser** was seen from 24 April, slightly earlier than in 2021. It was last seen on 13 September; this species is present throughout Scotland.

**Golden-ringed Dragonfly** was flying from 27 May to 29 September and is widespread, more so in the north and west, and on Orkney.

**Hairy Dragonfly**, had only 24 sightings (26 in 2021); it was seen from 1 June, a late start again. Most sightings were from Argyll. Two new breeding sites were discovered in Dumfries and Galloway. This species has a restricted distribution in south west Scotland and Argyll. A male was sighted patrolling a pool created by a beaver dam at one site; numbers in the Knapdale beaver loch were low.

**Keeled Skimmer** distribution continues to increase in Scotland as more sites are discovered. There were 30 records in 2022, 22 from Argyll, the others mainly from Ardnamurchan and Morven, and Arran. There was a sighting in the southwest Borders near Langholm. New breeding sites were found in coastal runnels on Scarba and Kerrera, small Islands to the west of Oban. Half the records received were for larvae, from some excellent breeding sites. The species was flying from 6 June to 10 September. An interesting photo was taken of very worn almost black male.

**Beautiful Demoiselle** was recorded from 23 May to 30 June. There were 22 records, mainly from Argyll, including Mull, 3 from Ardnamurchan and one from a new site in South Skye. Surveys were performed along a long term monitoring transect (set survey route) along the Knapdale burns; one stream now has beaver dams in two areas, one extending for over 30 metres. Some Beautiful Demoiselle adults were congregated by these dams where there was water flow but far fewer were observed over the still water behind. Unusually, a male was observed coupled with a Large Red Damselfly, and was having difficulty flying until it eventually shook off the attachment.

The **Banded Demoiselle** had more sightings in 2022: 25 from 28 April to 13 August. Records came from the Borders and southwest Scotland, including at Coerlaveroch Reserve. There was a sighting from Annan, and a record from further north in Fife again in 2022. This species continues to gradually spread in the south of Scotland.

The **Brilliant Emerald** was not targeted in 2022 for recording and there were far fewer sightings: only 12 records. These were mainly from the Glen Affric and Loch Bran areas where some clear felling of the surrounding plantations had taken place. Emergence was observed on 23 June at the Sonnach lochs in Argyll and a female was observed ovipositing into moss on a low bank at the edge of another hill loch on 5 July (later a male was sighted patrolling the same area).

The **Downy Emerald** had fewer records too, the majority were from Glen Affric with only two from the Black Lochs in Argyll. The earliest sighting was on 13 May and there was a late record from Corrie Loch on 27 June.

**Azure Damselfly** was recorded from 29 April to 14 August, and is now fairly widespread south of the Great Glen including in Aberdeenshire and on Deeside, overlapping with Northern Damselfly sites.

**Variable Damselfly** was only recorded from south west Scotland with 17 sightings from well known sites (ovipositing was seen at most of these). Other sites were not visited. This Damselfly was flying from 27 April to 2 August.

**Emerald Damselfly** is not declining in Scotland and in 2022 there were over 300 records from as early as 30 April to 2 September. This insect was recorded across Scotland, including some record on the North coast and on Orkney.

**Blue-tailed Damselfly** also found throughout Scotland, with +400 2022 records, including some from Western Isles and Orkney. It is less common in the north and not found on the highest ground. This Damselfly was flying from 1 April to 26 October.

**Black Darter** is fairly widespread but had slightly less records in 2022 reflecting the reduced recording effort; it was seen from 22 June to 10 October.

**Common Darter** was flying from an early date of 23 April to 6 November; it had +700 records. This Dragonfly is less common in the north and was recorded from northwest Sutherland and the Uists but not Orkney.

As in previous years there was range expansion observed in **Southern Hawker**; it has expanded out from the Inverness area, the west coast and Southern Scotland. There were 81 sightings in 2022; it was recorded north of Tain, and also appears to be spreading in Deeside. The species has now been recorded from almost 300 hectads; it only occupied 22 pre-2000. Early emergence was observed on 6 June and sightings continued to 13 October.

Emergence of the **Common Hawker** was also very early, again 3 June in the Easter Ross and in the west; sightings continued to 18 October throughout Scotland. Breeding records came from a variety of wetlands, from upland pools to garden ponds. There is no apparent decline in Scotland with 540 sightings in 2022.

**Northern Damselfly** had 76 records in 2022 for both adults and larvae; two thirds were from Strathspey and the rest mainly from Deeside. Notable observations from 2022 include:

- The outlying northerly site at Tain has a good breeding population.
- A new site was discovered at Fetteresso, near Stonehaven by Dr Alan Knox, some distance east of other known areas.
- Linda Ponah was studying Sustainable drainage systems (SuDS) in relation to Northern Damselfly for an MSc with Aberdeen University. Northern

Damselfly was discovered in six SuDS ponds, two of which had very good population. She also discovered three other new sites, one at Landmark at Carrbridge, and the other on Deeside. This illustrates that the species can colonise new ponds and hopefully we will learn more from this study.

- Two other new sites were found in Strathspey.
- Monitoring continued at Castle Fraser, where the Northern Damselfly had a good year.
- Two of the managed ponds included in the Northern Damselfly project were visited and a good population of adults were found. Continued monitoring of all the project sites will be needed.

In 2022 there were 51 records for **Azure Hawker**: 41 were adult sightings, a third of the 2021 sightings which was an exceptional year. Most sightings were single adult males, although one female was seen ovipositing in the northwest. Six adults were seen at Slattadale, which is a popular site for recorders. Adults were seen from 5 June to 16 September, an unusually late record; most were seen in June and July. Most sightings were in the northwest and the rest were from Glen Affric, with two sightings near Lairg in Sutherland. Two new sites were located: one east of Loch Ness and the other near Dalwhinnie. Other notable observations from 2022 include:

- The five main large breeding areas across Scotland were visited and pools sampled and assessed. The majority were in poor condition after the 2021 drought and dry early spring. Those that had been dry had no larvae of any sort even. When refilled with water they had a hard packed basal layer with either brown flaking silt or a gelatinous layer of compacted moss with anaerobic conditions below. Hundreds of pools were sampled and only six had Azure Hawker larvae. Only 15 larvae in total were found in the deeper pools. This is concerning as this species as its larvae take three years to develop. It is not known how long it will take the pools to recover but by November, after many weeks of rain, the pools were in a better condition. Considerably more monitoring is needed.
- Some volunteer training was carried out in the northwest by Daniele Muir at Dundreggan estate
- The visit to NW Scotland also involved meeting with Nature Scot and the Woodland Trust staff and giving training to two local volunteers. Both trainees have continued to carry out survey work, with Graham Rennie providing training on dragonflies at a Bioblitz.
- Two transects at Kinlochewe and Ben Shieldaig had small numbers of adults recorded.

Because of major survey effort there was an exceptional number of records for **Northern Emerald**, 95 in total although less than a third (31) were adult sightings. The majority of records (64) were for larvae as several larval surveys were carried. Emergence was witnessed on 19 May near Kinlochewe and on 30 May at Uath Lochs, Strathspey, where a maximum of nine exuvia were found. Adults were recorded from 30 May to 29 July. Records came from the northwest, Argyll, and Strathspey; some new breeding sites were found. There were scattered records from the west coast; the most northerly site was near Tain and the most southerly sites were at Flanders Moss and Mid Argyll. Other interesting notes from 2022 include:

- Luigi Cristofaro completed his MSc with Stirling University and the data he gathered on the habitat requirements of Northern Emerald will be very informative for future management work.
- There was sufficient water in the runnels visited in Argyll this year allowing for more survey work. Small numbers of larvae were found in all seven main survey areas where the species had not been seen for a number of years. At one site in Knapdale four larvae were found for the first time since 2011, despite annual searching. This shows that Northern Emerald is able to withstand periods of drought by retreating deep into the sphagnum where water remains. It often breeds in runnels which retain some water but in some very dry years exuviae are found on the sphagnum carpet where there was no open water.
- A new breeding site was discovered on the Woodland Trust Reserve south of Loch Arkaig, near Fort William. Here 23 larvae were found in scattered runnels across a slope in an area of failed plantation, now part of a native woodland restoration scheme.
- A site in Glen Garry, with records pre 2000, has been lost due to the growth of woodland which cause the wetland to become too dry and shaded. This is happening now in several areas.

There were similar numbers of records for **White-faced Darter** in 2022 as in 2021: 75 records, 52 of which were for larvae. Adults were emerging on 17 May in the northwest, and on 1 June at Corrour. This species was seen from 7 May to 1 July.

Other interesting notes from 2022 include:

- New sites were found at Ben Sheildaig and the neighbouring Kinloch. Here many of the pools were deep areas linked by runnels which would have retained water during the drought. They were in a similar situation on Loch Maree Islands which had not been surveyed for several years.
- At least two sites, that had a large population of White-faced Darter in the 1990s, were dry or in poor condition.
- Above Loch Garry White-faced Darter larvae were found in small bog pools at 300m above sea level. The area will be part of a new pump storage scheme and may be affected by an access track. Discussions are taking place with SSE about possible pool creation as part of their environmental plan.
- Two sites in Argyll were in good condition. At the Moss of Achnacree priority site near Oban management was discussed with the landowner, and pools created from bog restoration work were surveyed: White-faced Darter has not yet colonised them.
- A new site was discovered in the north near Invergordon.

As a result of climate change, Britain's northern species (which are at the southern edge of their range in Europe) are becoming more vulnerable, especially during long dry spells when their bogs and breeding pools become dry. We have achieved a lot so far but more resources and manpower are needed to achieve our goals of safeguarding these species. BDS is setting up the Dragonflies on the Edge project to draw attention to this and raise funds.

2022 had exceptionally high temperatures and many dragonflies responded with a northern range expansion.



**Emperor Dragonfly** had a bumper year with 62 records, compared with only 14 records in 2021, after a cooler winter; this is the most ever recorded. It was seen throughout the Borders and southwest Scotland, and occasionally recorded from Ayrshire. The most northerly record was from Cults in Aberdeenshire later in the season, and there were records again from Fife near St Andrews. Records dated from 20 June to 12 September, and ovipositing was witnessed on 12 occasions across south Scotland from 11 July to 12 August. Larvae, of various sizes, were found at two sites in the southwest, proving breeding.

There are now annual records for **Migrant Hawker**, with a record 45 sightings in 2022. There are three main ranges for the species in southern Scotland: the eastern Borders to Edinburgh, along the coast of southwest Scotland, and Ayrshire. It was first seen on 4 August and last seen on 24 October; ovipositing was seen on 1 September at Mire Loch, and 13 September near Edinburgh.

There were four records for **Red-veined Darter**, all in the southeast Borders, from Newmains, from near St Abbs, and from Seton, Edinburgh. The species was recorded from 20 July to 12 September, and ovipositing was recorded at Seton on 21 July - this is rarely seen but was witnessed previously in 2015, 2017 and 2019.

After no sightings of **Black-tailed Skimmer** in 2021, there were seven records from the same three sites that previously provided sightings (Millars Moss, Newmains Farm and Seton) dating from 8 July to 14 August, with ovipositing seen on 9 July at Newmains.

**Broad-bodied Chaser** had a large expansion into southern Scotland, with 38 records in 2022; there have been 48 in total since 2014. It was recorded from 15 May to 27 July, with most in June. Ovipositing was seen at the John Muir Country Park, near Edinburgh, on 27 June, and at the nearby Coulston Wood on 1 June and 27 July - exuviae were found here on 31 May, indicating successful breeding. Most records were from near Edinburgh and the Borders with one from Gelston in Dumfries and Galloway, and another from just north of the border in Roxburghshire.

The **Lesser Emperor** was seen seven times from 11-14 August at Seton and Mire Loch, St Abbs - here it was seen egg laying on 15 July. An outlying individual was recorded from Aberdeenshire.

The Priority Site at Newmains Farm was particularly productive. Thanks to the foresight of David Graham, ponds were dug here about 20 years ago. This site now has the largest species list in Scotland, with 16 species recorded, 10 of which have breed. It has provided an important breeding site for species moving north.

The **Brown Hawker**, was seen again at Strathclyde Country Park, near Hamilton, from 7 August to 10 September, and was observed ovipositing on 7 August (egg laying was also seen in 2021).

A partnership agreement was signed between the BDS and Forestry and Land Scotland. This is a major achievement as FLS has the largest amount of land in public ownership in Scotland. All the rare dragonfly species which breed in Scotland are present on FLS land, which also contain their greatest concentration of breeding sites. The BDS will advise on management and some money has been included in the budget to cover survey work.

In Scotland we continue to work with the RSPB, Scottish Wildlife Trust, Woodland Trust, Nature Scot, National Trust for Scotland, and many landowners. Thanks again to Butterfly Conservation for passing on dragonfly records, and a huge thanks to the large number of recorders who have submitted around 6000 records, which help to monitor the current situation for dragonflies here in Scotland.



*Figure3 Azure Hawker Glen Affric upper, Andy Musgrove*



*Figure3 Azure Hawker Glen Affric, Andy Musgrove*

# Orkney VC111

## By Graeme Walker

Contrary to the splendid weather enjoyed by much of the UK during the summer of 2022, sadly the same could not be said for Orkney, where the occasional balmy day was inevitably followed by several days of strong winds and lashing rain. Consequently, this had an effect on dragonflies and humans, with fewer insects being visible on the wing, and also less opportunity for recording activity.

In a foretaste of things to come, spring 2022 was a mixed bag weather-wise and just when I thought that the flight season was likely to be late, **Large Red Damselflies** were reported bang on schedule (for Orkney) on 15 May in Finstown. The species was most abundant in East Mainland, West Mainland and Hoy, but was also seen in South Walls and Rousay, before the last record was received from the parish of Rendall on 24 August.

A little later than usual, **Blue-tailed Damselflies** were first seen on 3 June in Hoy at a site which is an old water storage pond at Lyness, adjacent to the Scapa Flow Museum. During several years of refurbishment of the museum, it wasn't clear whether this water body would survive, but although water levels are reduced, it is good to know that the site is still viable. **Blue-tailed Damselflies** were most abundant in Flotta and Hoy, and also seen in East Mainland, West Mainland, and Stronsay. This latter island is a relative newcomer to the Odonata party, with its first ever record in 2021 (**Black Darter**) and now a small colony of **Blue-tailed Damselflies** has been found in a pool at a disused quarry. The species was last seen in 2022 on 22 August in West Mainland.

By mid-June, **Common Blue Damselflies** were on the wing, with the first sighting on 16 June in Hoy. The species was most abundant in Hoy and Flotta, and also seen in West Mainland, Rousay and Groemsay. The last record received was from Hoy on 14 August.

**Emerald Damselflies** were first seen on 11 July in Hoy, the island where they are at their most abundant. The only other sightings in 2022 were all from Flotta. In a shorter flight period than normal, the last record was on 14 August in Hoy, but this is likely to be due to reduced recorder effort.

The earlier-flying dragonflies were absent from the year's records, with no reports of **Golden-Ringed Dragonfly** or **Four-spotted Chaser**. These are predominantly found in remote parts of Hoy, so it is not unusual for there to be a year without sightings, especially bearing in mind the weather.

For our later-flying dragonflies, **Common Hawker** and **Black Darter**, both species were first reported on 11 July in Hoy. The hawker was most abundant in Hoy, but was also seen in West Mainland, with the last record being from there on 1 September. The darter is also most abundant in Hoy, but there were also sightings from Eday and West Mainland, again with the last record coming from the Birsay Moors on 19 September.



Due to other commitments, the walk for National Dragonfly Week took place in the middle of August, with five species seen on the day, and only **Large Red Damselfly** was missing from the usual list of suspects. The day before, a recce had been carried out in unremittingly dreich weather, and the actual day dawned with thick fog which barely lifted as we climbed the hill of Wee Fea. Pleasingly, there were many more **Emerald Damselflies** and **Black Darters** present at this time, with several hundred of the latter spread along the tracks and around the pools visited.

No dispersive or vagrant species were reported during 2022.



*A Black Darter Emerging on a Dreich Summer's Day*



## County Dragonfly Record Contact Details

Local Group Details Can be found on the BDS website under the 'About' drop down menu.

[www.british-dragonflies.org.uk](http://www.british-dragonflies.org.uk)

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