Go Wild in Garnock

Summary and evaluation of the Biological Records collected by the Project

by

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for

Garnock Connections Landscape Partnership

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Acknowledgements

Thank-you to all the staff of Garnock Connections, especially Elouise Cartner, Melissa Shaw, Miriam Lord, Laura Healy Smith, Iona Brown, David Anderson, Ian McNab, Neal Lochrie and Alyson Hunter. Thank-you also to GC Project leads who contributed biological records from their projects to the Go Wild in Garnock Project, especially Gill Smart, Fiona Fisher, Peter Livingstone and Suzanne Burgess. Most of all, thank-you to everyone who submitted wildlife records in the Garnock Connections area.

Marsh Marigold by jtweedie

Common Toad by Christine McGovern

Fly Agaric by Mark K. Sillars

Dark-green Fritillary by Malcolm Haddow

Gwynne's Mining Bee by Scott Shanks

Grey Heron by Rowan McCulloch

Summary and evaluation of the Biological Records collected by the Go Wild in Garnock Project

Background

This report has been produced by South West Scotland Environmental Information Centre (SWSEIC) for Garnock Connections Landscape Partnership. It provides an evaluation of the biological data collected by the Go Wild in Garnock Project, and the methods used to collect that data. It covers the full period during which Go Wild in Garnock was active, from August 2018 to October 2022, during which time SWSEIC provided support for the project.

SWSEIC Staff

The following SWSEIC staff were involved in providing services to Garnock Connections in support of Go Wild in Garnock:

- Mark Pollitt, Centre Manager (August 2018 to October 2022)
- Helen Embleton, Project Officer (August 2018 to November 2018)
- Peter Norman, Project Officer (December 2018 to October 2022)

Wildlife Recording System

SWSEIC established a wildlife recording system specifically tailored for Garnock Connections as part of the online iRecord website, a national system operated by the Biological Records Centre. This system allowed recorders to submit records online, including in the field via the iRecord mobile app. It enabled users to log wildlife records as part of the Garnock Connections programme of events, but also enabled a record to be maintained of all wildlife seen in the Garnock Connections area, even if not directly linked to the project activities.

Importantly, use of the iRecord system provided instant feedback to participants, allowing recorders to view their own records and those of fellow participants on continually updated maps and charts, enabling them to monitor progress of the project.

SWSEIC established separate activities on iRecord for the bioblitzes held at Ardrosssan Castle (2), Glengarnock Castle and Eglinton Country Park. This effectively created a sub-set of wildlife records for the area and time period covered by each event, allowing specific feedback to all Bioblitz participants, whilst simultaneously ensuring that the records contributed to the total for Go Wild in Garnock.

Verification of Wildlife Records

Use of the iRecord system allowed wildlife records to be checked and verified by local and national experts in the relevant species groups. Not all species groups are currently verified by experts, but full details of all records are held by the system indefinitely, which will enable any record to be checked and verified at any point in the future. The quality of the data collected by Go Wild in Garnock can therefore be considered to be very high.

Wider Use of the Data

All verified biological record data on iRecord was automatically shared with national biological recording schemes and uploaded to the National Biodiversity Network (NBN).

Summary of Garnock Connections Wildlife Records

The following analysis of wildlife records collected for the Go Wild in Garnock Project is based entirely on the publically available information collected through the Garnock Connections activity on iRecord.

SWSEIC has permission from the Biological Records Centre to download full record data from iRecord for the area it covers, some of which is not publically available on the website. This would enable SWSEIC to carry out more detailed analysis of that data. However, the Garnock Connections area includes a small area within Renfrewshire, covered by the Glasgow local biological records centre and therefore not available for download by SWSEIC. This report therefore presents an analysis restricted to the publically available data for the full Garnock Connections area.

SWSEIC also received biological data from GC project leads including 'Growing for Garnock' and 'Garnock's Buzzing', which was supplied direct to SWSEIC, rather than submitted via iRecord. As such, it is not included in this analysis, but was added to the SWSEIC database and will be made available for wider use in the same way as data submitted via iRecord.

Bearing in mind the above caveats, the following analysis should be viewed as incomplete – the actual contribution of the data submitted by the Go Wild in Garnock Project will be greater than can be presented here, though not significantly so.

Total number of Records Collected

A total of 19,103 wildlife records was submitted, of which 10,574 (55%) have (so far) been verified as correct by experts.

Total number of Recorders

A total of 358 different people submitted records. The most active individual recorder submitted 4296 records of 966 species, three recorders each submitted more than 1000 records, and 30 recorders each submitted at least 100 records.

A total of 7030 photographs were taken and submitted by recorders to aid verification of their records. A short selection of these photographs have been used to illustrate this report.

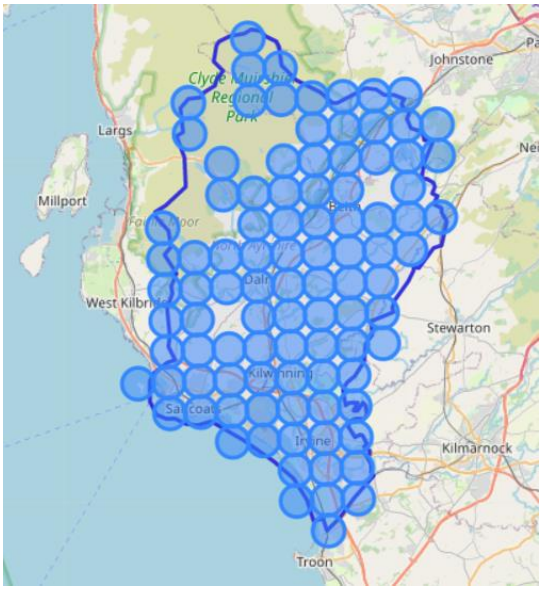


Common Blue butterfly by Anne Stobbs, Primrose by Christine McGovern, Blue Tit by Harry Richards

Geographical Distribution of Records

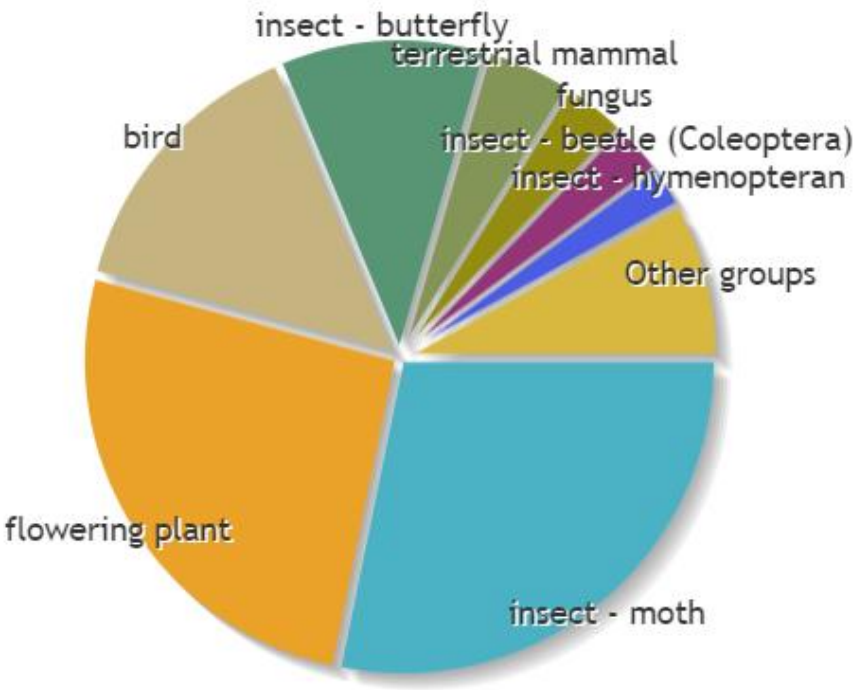
This map shows the location of all wildlife records submitted during the lifetime of the project.

With the exception of the moorland of Clyde Muirshiel Regional Park on the north-west boundary of the Garnock Connections area, records were received from virtually all parts of the project area.



Species Groups Recorded

The most frequently recorded species groups were moths (5386 records) and flowering plants (4956 records), with each accounting for slightly more than one quarter (25%) of all records. Birds (2771 records) and butterflies (2054) were also popular, together making around another quarter of the records. Mammals, fungi, beetles, bees and other groups combined made up the remainder of the records, constituting slightly less than one quarter of all records.



Species Recorded

A total of 2404 different species was recorded from 49 different species groups.

The most diverse species group was flowering plants with 555 different species recorded. The top 10 most diverse species groups are shown in the table below.

	Species Group	No. of Species
1	Flowering plants	555
2	Moths	421
3	Beetles	236
4	Fungi	230
5	Birds	126
6	True flies (Diptera)	97
7	Mosses	84
8	Bees, wasps & allies	80
9	Mammals	27
10	Butterflies	25

Overall, the most frequently recorded individual species was Green-veined White butterfly with 250 records. In fact, butterflies accounted for 8 out of the top 10 most frequently recorded species, with the only non-butterflies being Roe Deer and Large Yellow Underwing moth.

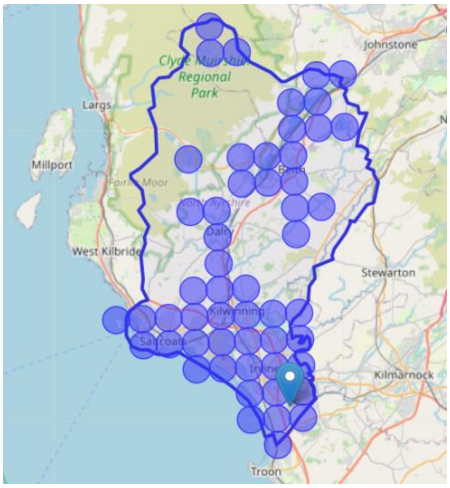
Green-veined White butterfly by Jennie Jackson

Top 10 most frequently recorded species

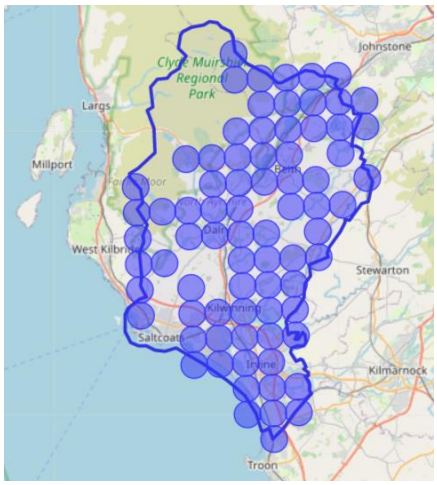
	Species Group	Species	No. of Records
1	Butterflies	Green-veined White	250
2	Butterflies	Orange-tip	228
3	Mammals	Roe Deer	226
4	Butterflies	Meadow Brown	219
5	Butterflies	Peacock	211
6	Butterflies	Ringlet	204
7	Butterflies	Small Tortoiseshell	181
8	Butterflies	Small Heath	176
9	Butterflies	Common Blue	161
10	Moths	Large Yellow Underwing	150

Changes over time

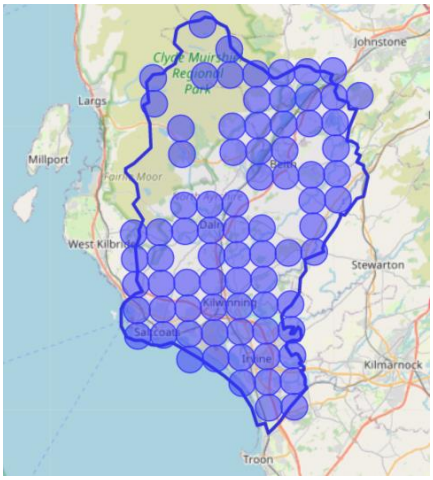
The maps and statistics presented below shows wildlife recording in each of the calendar years during the period covered by the project. The general trend shows an increase in wildlife recording from the start of the project until its end in 2022. The dip in 2020 may be attributable to the strict regulations imposed during the first COVID-19 lockdown when people were discouraged from travelling in order to watch wildlife, though the distribution of records in 2020 is concentrated in the areas of greatest population density, perhaps indicating that many people switched to recording wildlife at home.



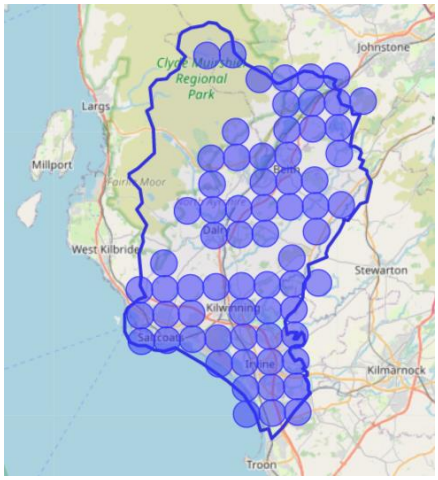
3949 records of 1012 species in 2019 covering 54 grid squares



3381 records of 962 species in 2020 covering 77 grid squares



5748 records of 1302 species in 2021 covering 79 grid squares

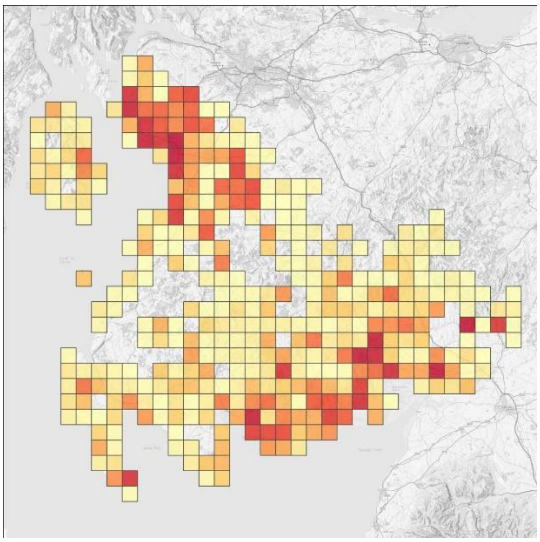


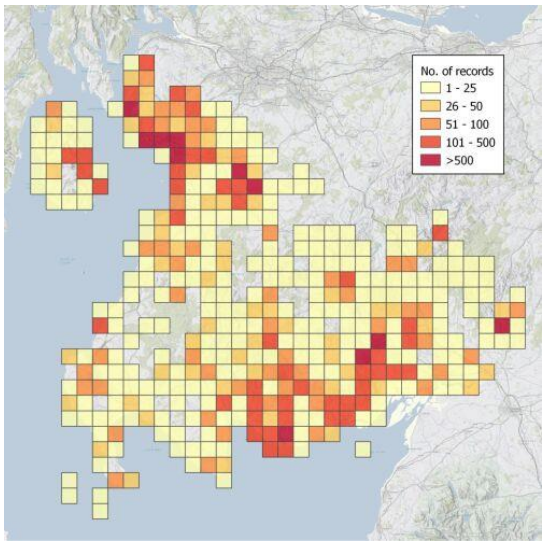
6009 records of 1412 species in 2022 (Jan-Oct) covering 67 grid squares

Comparison with other parts of South-west Scotland

The maps below show the distribution of all wildlife records submitted via iRecord in the area covered by SWSEIC (Ayrshire and Dumfries & Galloway) in the two most recent years, 2021 (left) and 2022 (right). The concentration of records in the Garnock Connections area of Ayrshire is noticeable. This is despite the fact that SWSEIC has operated in Dumfries & Galloway since 2004, but in Ayrshire only since 2016.

It may also be worth noting that the next greatest concentration of records (at least in 2022) is the Dee-Ken Valley of Galloway, an area covered by the Galloway Glens Landscape Partnership Scheme that included various wildlife recording projects, though nothing as all-encompassing as Go Wild in Garnock.





Conclusion – The Impact of Garnock Connection's Go Wild in Garnock Project on Wildlife Recording

It is not possible to draw conclusions with total certainty on the impact of the Go Wild in Garnock Project on wildlife recording, since it impossible to know how the situation would have developed in the absence of the project. Use of online wildlife recording apps, such as the iRecord system used by the project, has significantly increased nationally in recent years, as has the number of people participating in wildlife recording. It is also the case that the Garnock Connections area contains a greater population density than many other parts of south-west Scotland, and greatest wildlife recording activity is always correlated with high population density. The impact of the COVID-19 pandemic during the lifetime of the project will undoubtedly have also had an impact, but the unprecedented nature of the pandemic makes it difficult to interpret precisely what its impact was on wildlife recording.

What is beyond doubt is that during the lifetime of the Go Wild in Garnock Project, in the Garnock Connections area, there were more wildlife records submitted by more people than in any of the years preceding the project. And there is strong evidence to suggest that the project was directly responsible for much of this positive impact.