



Small Blue (*Cupido minimus*) Surveys & Habitat Monitoring: East Coast Region



Small Blue © Colin Matheson

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2 Project Information

2.1 Background

This report represents the results of the surveys of Small Blue (*Cupido minimus*) during 2025 as part of the Species on the Edge programme. Species on the Edge is a partnership programme aimed at improving the declining fortunes of 37 priority species found along Scotland's coasts and islands.

Our smallest UK butterfly, the Small Blue is easily overlooked, partly because of its size and dusky colouring, but also because it is often confined to small patches of sheltered grassland where its sole foodplant, Kidney Vetch (*Anthyllis vulneraria*), is found. Small Blue colonies are small, scattered and rapidly declining, there are now only around 80 known sites within Scotland, many of them on our East Coast. The Small Blue is a high priority species for Butterfly Conservation in Scotland due to habitat losses which have led to several Scottish local extinctions.

























The aim of the surveys was to collect detailed data on each population of not only Small Blue but also the food plant Kidney Vetch at sites on the East Coast between Aberdeen and Dundee. The data collected allows for comparison with existing baseline data from earlier in the project to help inform future conservation management discussions with relevant landowners and land managers.

The surveys collected the following key information at each site:

- The exact location of the colony
- Presence/absence of adult butterflies
- Assessment of Kidney Vetch populations at a site level; including count of plant and flower head numbers
- Site access information
- Any immediate threats to the habitat
- Detailed weather information of the survey day
- Map of area walked

4 Results and discussion

4.1 Site ranking

Site	RAG status	Food-plant condition	Butterfly / egg record
Arbroath cliffs			
Barry Buddon			
Barry Station			
Carnoustie Links			
East Haven			
Elliot Links			
Monifieth-Barry Stn			
Seaton Cliffs			

See appendix for RAG key.

4.2 Arbroath Cliffs

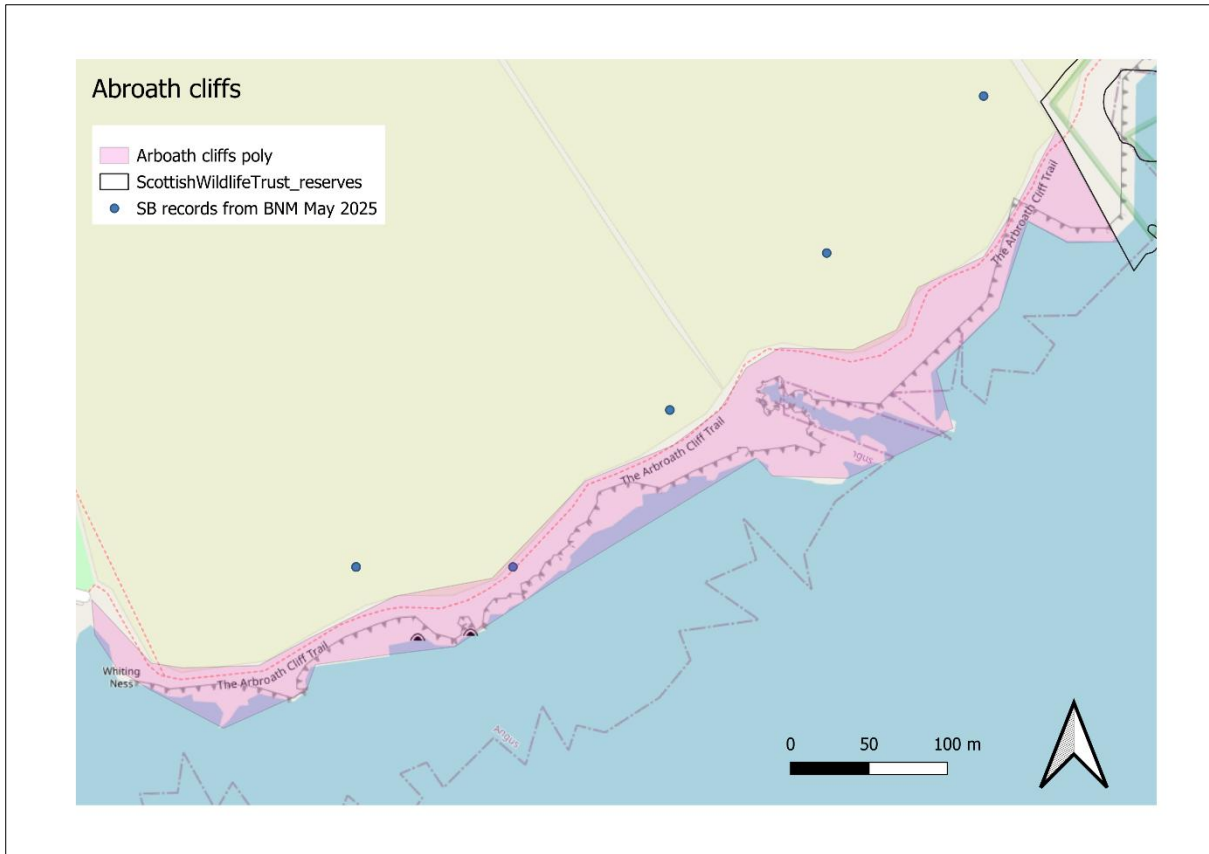


Figure 2 Arbroath cliffs, Angus with Small Blue records up to May 2025



Figure 3 Arbroath Cliffs, Angus © Fiona Basford

Arbroath Cliffs would benefit from Kidney Vetch monitoring as the last monitoring took place in 2024. Future information about the levels of Kidney Vetch will inform whether future sowing / planting takes place. Arbroath Cliffs, as marked in figure 2, are part of a Site of Special Scientific Interest (SSSI) and would require permission for such activities. Records of Small Blue are not as prevalent at Arbroath Cliffs as at the neighbouring site of SWT Reserve Seaton Cliffs.

4.3 Barry Buddon

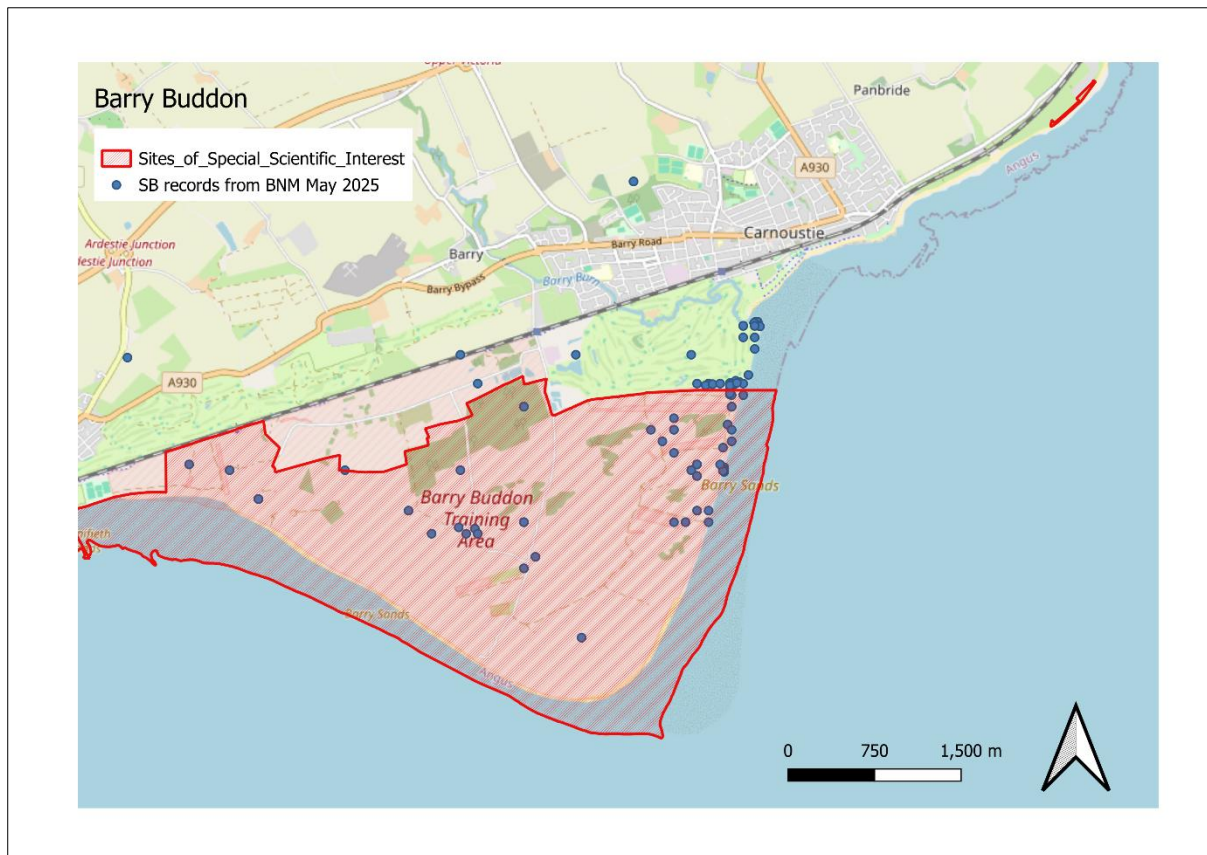


Figure 4 Barry Buddon, Angus with Small Blue records up to May 2025

Barry Buddon had Small Blue egg records in 2025 with evidence of deterioration of Kidney Vetch in some places due to disturbance. This site would benefit from Kidney Vetch monitoring to inform future conservation work. The site is a military base and as such is restricted. The firing times can be found online or by calling 01382 533025 or 01382 534839. When red flags and/or lights are hoisted, regardless of timings, do not enter the training area, this is a danger to life. The site is also a SSSI, any conservation work would require a licence from NatureScot. Historically, this site has been a stronghold for Small Blue and any surveys will help to inform population trends.

4.4 Barry Station



Figure 6 Barry Station, Angus - New site in 2025



Figure 5 Barry Station, Angus © Fiona Basford

Barry Station is a new site for 2025, with thriving Kidney Vetch surrounded by Vipers Bugloss (*Echium vulgare*). This area is used by Carnoustie Links as a storage area for recycled sand and soil from the golf course.

This site is doing well and requires little to no intervention. Connecting this colony to other suitable habitats would be beneficial.



Figure 7 Thriving Kidney Vetch at Barry Station © Fiona Basford

4.5 Carnoustie Links



Figure 8 Carnoustie Links, Angus



Figure 9 Small Blue group at Carnoustie Links 2025 © Fiona Basford

In 2025 there has been planting and seeding of Kidney Vetch, coordinated by the Sustainability Team at Carnoustie Links. This habitat is being maintained well and has some good examples of Small Blue and their eggs for training purposes. A transect was initiated here in 2021 for one year, it would benefit the recording of the Small Blue for this to be restarted or have 2 x timed counts performed per season.

4.6 East Haven



Figure 10 East Haven, Angus

East Haven has suffered major losses of Kidney Vetch since storm Babet of 2023, where 10m of dunes were destroyed. There are plans to replant certain areas with Kidney Vetch in spring 2026. Future surveys for both the Small Blue and Kidney Vetch would be beneficial to understand if the conservation effort has been successful. Part of this site is a SSSI, and any future planting would require a licence from NatureScot. The community led organisation East Haven Together are very supportive of the Small Blue.

4.7 Elliot Links



Figure 11 Elliot Links, Angus

Elliot Links appears to have delayed flowering of Kidney Vetch compared other nearby sites. No Small Blue or their eggs were recorded in this area in 2025 through Species on the Edge surveying. Monitoring of this site from mid-June onwards would be helpful to ensure the Kidney Vetch is in flower when surveying. Main threat to the habitat in this location is coastal erosion and competition from grasses.

4.8 Monifieth to Barry Station NCN

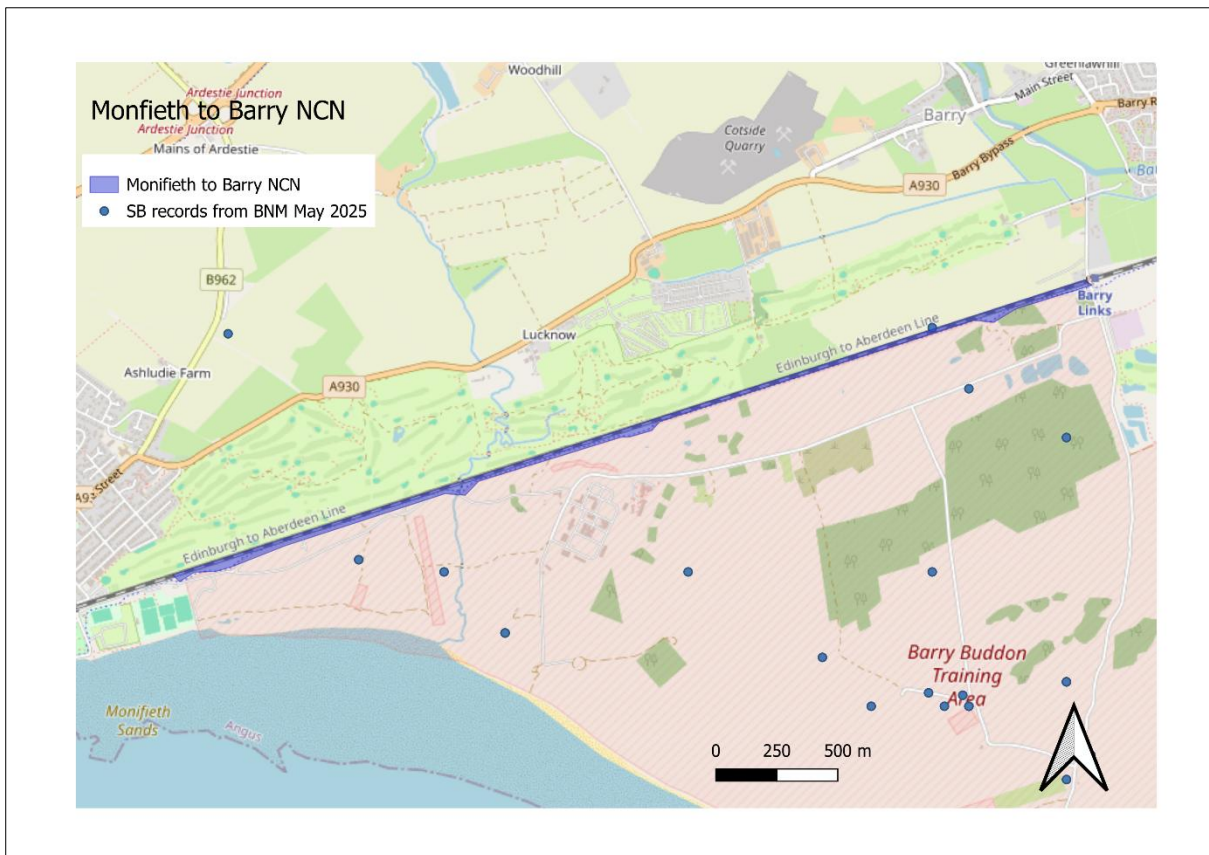


Figure 12 Monifieth to Barry NCN



Figure 13 Butterfly Scrape, Monifieth to Barry NCN 2025 © Fiona Basford

Habitat work took place along this stretch in 2025 to include 30 small scrapes where Kidney Vetch and in some places, Yellow Rattle (*Rhinanthus minor*). At the mid-way point a butterfly scrape was created by volunteers and planted with Kidney Vetch and Yellow Rattle was sown. Monitoring of Kidney Vetch progression and Small Blue over the next few years will help inform if these actions

have been successful to create a suitable habitat for a new colony. Part of the cycle track is part of the Barry Buddon SSSI and further planting will require permission from NatureScot in this area.

4.9 Seaton Cliffs

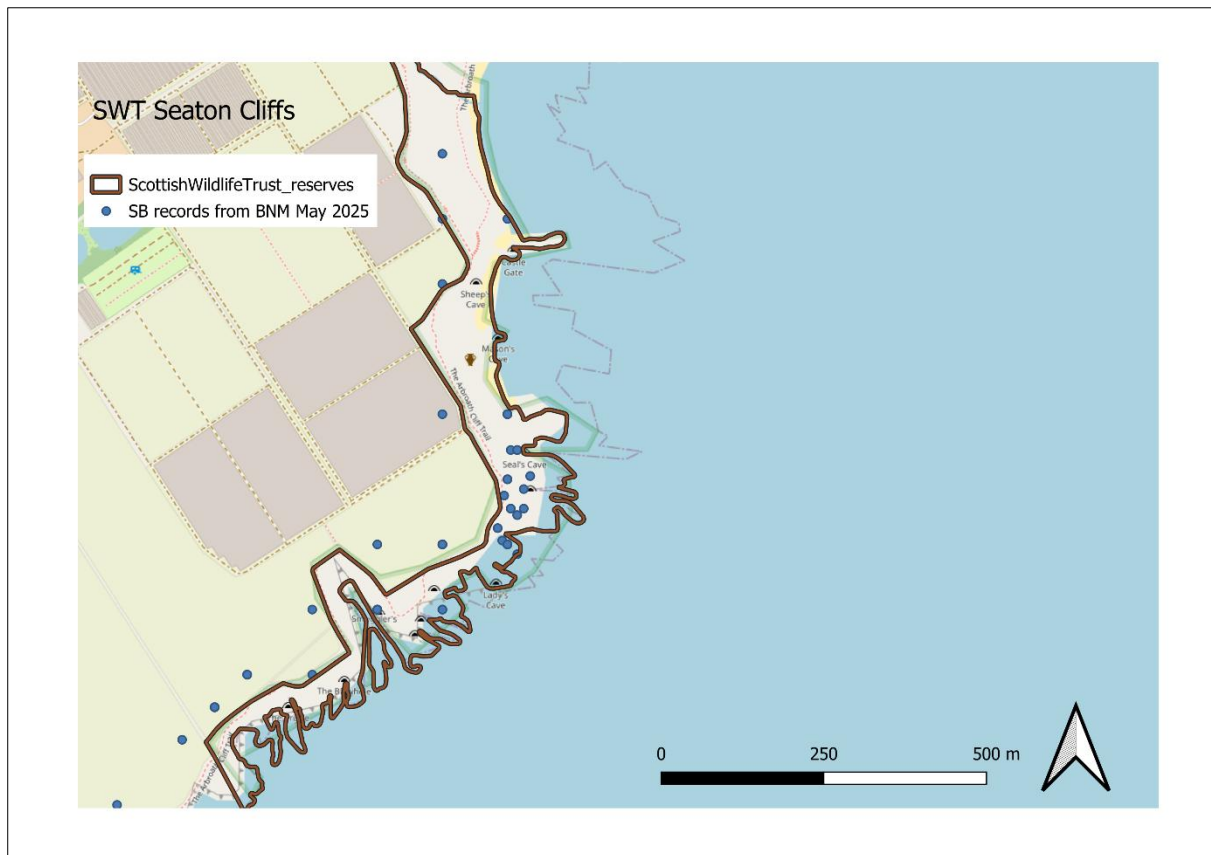


Figure 14 SWT Seaton Cliffs, Angus



Figure 15 SWT Seaton Cliffs Kidney Vetch planting 2025 © Fiona Basford

Seaton Cliffs Reserve is owned by the Scottish Wildlife Trust. Kidney Vetch was planted there in 2025 along with Yellow Rattle to parasitise the grasses that are outcompeting the Kidney Vetch. This site is a strong hold for Small Blue in Angus and is a good area to practice surveying Small Blue.

5 Season round up

There has been progression in habitat management to link up existing colonies, monitoring the development of these sites (Monifieth-Barry Station and Seaton Cliffs in particular) for both Small Blue and Kidney Vetch would be beneficial. To maintain habitat connectivity along the coastline East Haven would benefit from Kidney Vetch reintroduction and monitoring.




6 Future plans

The possibility of habitat works at West Links are being investigated, early proposals include a large scrape and a butterfly bank, with the installation of an interpretation panel describing how to help the Small Blue.

Further planting of Kidney Vetch and Yellow Rattle are planned at SWT Seaton Cliffs Reserve will be arranged to ensure the security of the site for Small Blue.

7 Appendix

7.1 RAG assessment criteria

RAG status	Habitat condition (primary criterion)	Butterfly / egg record (supporting indicator)	Interpretation	Volunteer action
 Green	Food plant abundant, well distributed, good vigour, evidence of regeneration, no immediate threats	Eggs or adults recorded during suitable survey conditions or recorded within recent survey period	Site currently secure and capable of sustaining the colony without intervention	Monitoring only; routine checks
 Amber	Food plant present but patchy and declining. Colony isolated.	Declining numbers of eggs or adults	Site vulnerable; food plant at risk without preventative management	Targeted volunteer management within 1 year
 Red	Food plant scarce, heavily shaded, declining rapidly; OR site is difficult to access.	Adults and eggs not recorded despite suitable survey effort or recorded but food plant insufficient	Site at high risk of losing breeding population without intervention	Priority site; urgent volunteer intervention

7.2 Small Blue survey form



Species on the Edge:
Rockin' the Blues



Species on the Edge Small Blue (SB) Survey Form 2025

Recorder Name			Date	
Email Address				
Name of Site Surveyed				
Weather				
Have you submitted your NBA records to the county butterfly recorder or iRecord?				<u>YES / NO</u>
Central grid ref for any areas with Small Blue	Number of Small Blue	Were SB eggs seen?	Habitat Information e.g. was Kidney Vetch present	

Please describe the habitat for SB at this site, include the following:

- Would you describe the habitat as being in good or poor condition
- other comments, including the presence of Bird's-foot Trefoil
- were there signs of encroaching scrub such as gorse?

Site ownership (if known) & status e.g. SSSI	
Current use & management (if known) e.g. grazing animals, forestry, gamekeeping.	
Site access: where did you park and any paths, hazards such as cliffs, bulls etc	
Photographs: Please feel free attached any images of the habitat with the form and send to Tracy Munro at tmunro@butterfly-conservation.org	

Document Name	SotE Small Blue Survey Form		Version	V03	
Author	T. Munro	Date	04/2025	Review	04/2026



Species on the Edge:
Rockin' the Blues



Survey Map: Please use the page overleaf to show on a 1:50k or 1:25k OS map, (or sketch a map) the area searched, and the route walked. Indicate where Kidney Vetch and Small Blue were found. **Please also include photos of the site and habitat.**

Thank-you for taking the time to help us with this survey, all data gathered is gratefully received.

By submitting these records you confirm that they contain data that you have collected, give permission for the records to be used for research, education and public information, and to be made generally available for re-use for any other legal purpose under the terms of the Open Government Licence (<http://www.nationalarchives.gov.uk/doc/open-government-licence/>)

Document Name	SotE Small Blue Survey Form			Version	V03
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7.3 Kidney Vetch monitoring guidance and form



Species on the Edge:
Rockin' the Blues



Species on the Edge Kidney Vetch Monitoring 2025

Rockin' the Blues aims to revive the fortunes of the Small Blue (*Cupido minimus*) the UK's smallest butterfly. The success of Small Blue colonies relies on both the presence and abundance of Kidney Vetch (*Anthyllis vulneraria*), the caterpillars' sole foodplant. As Kidney Vetch is a short lived and poor competitor it is very susceptible to changing local conditions. Fortunately, Kidney Vetch abundance can be easily and effectively monitored by annually counting or estimating the population at important Small Blue sites.

AIM OF THE SURVEY:

- To establish the extent of Kidney Vetch presence at known Small Blue sites.
- The data will enable Butterfly Conservation to assess the condition of the site and provide a valuable baseline from which to monitor future conservation changes.

WHEN:

- Mid-May until late August, during the main flowering period of Kidney Vetch (this is when the plants are easiest to find).

HOW:

- Walk across, through or along the site stopping to count Kidney Vetch plants when you spot them.
- When you walk across areas with no Kidney Vetch it is also important to log this, take a grid reference approximately in the middle of the area with no Kidney Vetch and simply enter a count of zero on your field sheet.
- As you encounter Kidney Vetch stop and count the number of plants and the number of flowerheads within the surrounding 10metre area.
- Include any unopened flowerheads in your count.
- Note that some flowerhead stalks may have two flowerheads, count these as two flowerheads.
- Take a central 10-figure ordnance survey grid reference (e.g. NH 12345 12345). This can be done using a handheld GPS or via a phone app such as Grid Reference by Arthur Embleton.

Note: If plant numbers and flowerheads are into the hundreds or greater such as may occur at larger well-established sites, then an estimate can be taken by counting a smaller area and multiplying up. In large sites take a new grid reference approximately every 20metres.

On completion of the survey, type up the data (or scan the survey sheet) and send the results to Tracy Munro at tmunro@butterfly-conservation.org. Additionally if you have any queries please get in touch.

Thank-you for taking the time to help us with this survey, all data gathered is gratefully received.

By submitting these records you confirm that they contain data that you have collected, give permission for the records to be used for research, education and public information, and to be made generally available for re-use for any other legal purpose under the terms of the Open Government Licence (<http://www.nationalarchives.gov.uk/doc/open-government-licence/>)

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Author	T. Munro	Date	04/2025	Review	04/2026

