# SRMS Online instructions for Scottish Raptor Study Group members taking part in the 2023 Hen Harrier Survey

Thank you for choosing to submit your 2023 Hen Harrier National Survey Results via SRMS Online, the Scottish Raptor Monitoring Scheme's online data entry portal. Your Hen Harrier data entered via this route will be extracted and shared with RSPB at the end of the survey.

IMPORTANT: The deadline for submitting your Hen Harrier Survey results via SRMS Online is 31<sup>st</sup> August 2023. N.B. this is different to the standard SRMS submission deadline of 31<sup>st</sup> October.

## **Getting started**

You should enter your Hen Harrier survey data within the Hen Harrier 'operating group' account for your SRSG branch area, which you should already have access to (e.g. Hen Harrier\_CSRSG; Hen Harrier\_Perthshire\_T&FRSG).

You should find that each of the 10-km census squares that you have agreed to survey wholly or in part have been pre-loaded for you as Study Areas, and any pre-existing Home Ranges/Nest Sites intersecting the census square made visible for you to record against where relevant to do so.

## After every visit to your census square, you should take the following actions:

- 1. Log in to SRMS Online with your MyBTO username then jump into the relevant Hen Harrier account to input your data (Page 3).
- 2. Compete a "Daily Summary" within the Effort Recording Area, remembering to use the coverage comments box to let us know anything noteworthy about your monitoring coverage on that particular visit. Also let us know the estimated number of pairs on a particular visit. There may be cases where no Hen Harriers are found in a 10-km square (i.e. a "Nil Return"). If this occurs, please enter '0 pairs' as the estimated number of pairs (Pages 4-5).
- 3. Record the details of any Hen Harriers seen by creating an appropriate location and then adding visit data to it. Sightings of Hen Harriers away from 'pinned-down' nest sites can be recorded against an <u>Observation Site</u>. Any data recorded at or in the immediate vicinity of 'pinned-down' nest sites can be recorded against a Nest Site. Pages 6-10 guide you through creating an Observation Site, Pages 11 -14 guide you through creating a Nest Site and Pages 15-20 guide you through adding your Visit Data to these locations.

#### One time task only:

- 4. Please use the comments field in the "Study Area" form to record additional information pertinent to the census square including (Pages 21-22):
  - (i) state whether you know if there has been any driven grouse shooting on the moor within the last 5 years.
  - (ii) the amount of strip burning in the heather moorland of a 10-km square using the following categories:
    - 0 no strip burning
    - 1 some fragments of strip burning
    - 2 strip burning in 1-30% of heather
    - 3 strip burning in 31-70% of heather
    - 4 strip burning in > 70% heather

Note that even when heather moorland only makes up a small total percentage of the available habitat in a square, if strip burning occurs in most of it, then you would still consider the extent of strip burning to be a category 4.

- (iii) Estimate of the number of alive Mountain Hares observed in a 10-km square.
- (iv) Estimate of the number of dead Mountain Hares observed in a 10-km square.
- (v) Comments as to your opinion of the suitability of the habitat for nesting harriers.
- 5. Please complete the "Habitat" section of the "Study Area" form to record the heather moor type (i.e. select the most appropriate "Primary habitat") and whether or not the moor is managed for grouse shooting (i.e. select the most appropriate "Management activities"). Such moors will typically have shooting butts and rotational heather burning.

The following pages contained some more detailed instructions with screenshots to help guide you through the above.

#### Additional resources are available on the SRMS website:

- Guidance manual.
- Quick reference guides consider taking the 'Visit Log Details' form into the field with you to help you capture the data in a SRMS Online friendly format to type in when you are back in from the field.
- Video tutorials.

Amy Challis (SRMC) can be contacted for any SRMS Online support – srmc@bto.org.

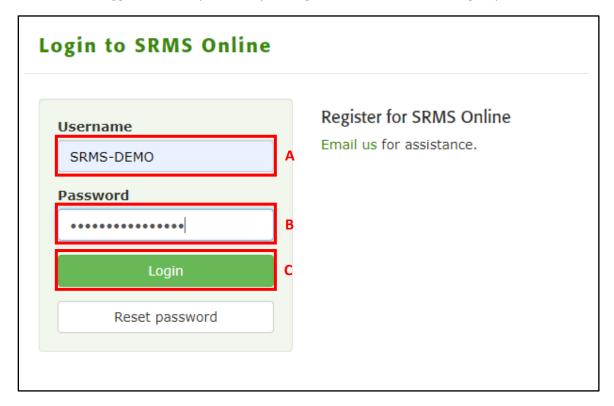
Amy Challis (Scottish Raptor Monitoring Coordinator), Dr Leah Kelly (RSPB) & Dr Simon Wotton (RSPB) 21st March 2023

## 1. How to login and jump into the relevant Hen Harrier Account

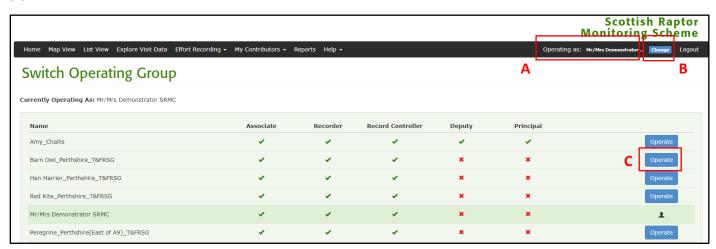
You can access SRMS Online either via <a href="https://app.bto.org/demography/srms/public/login.jsp">https://app.bto.org/demography/srms/public/login.jsp</a> or clicking directly on the green 'Login to SRMS Online' button on the Home Page of the Scheme's website, <a href="https://raptormonitoring.org/">https://raptormonitoring.org/</a>.

From the 'Login to SRMS Online' page, logging in is a simple two-step process:

- 1. Enter your MyBTO username (A) and password (B) and click the green 'Login' button (C);
- 2. Once logged in, check you are 'Operating as' the correct individual/group.

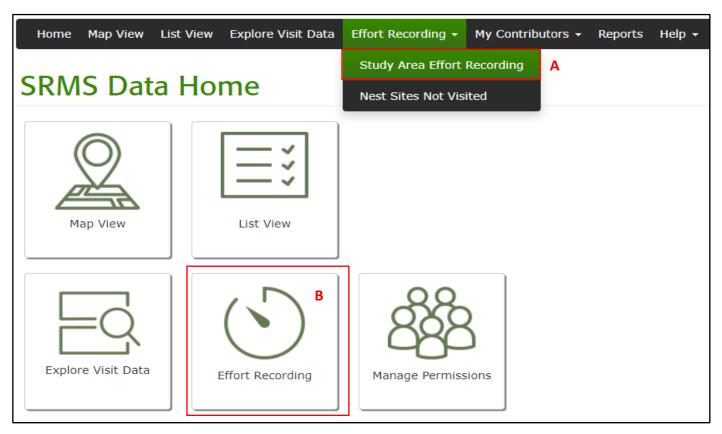


Before beginning to input or view data, you should ensure that you are 'Operating as' the correct account by looking at the navigation bar (A). If you find you are not in the correct account, you can switch this by clicking the blue 'Change' (B) button. To input your Hen Harrier data you are going to want to jump into the appropriate account for you SRSG branch area, most likely one of the following: Hen Harrier\_CSRSG; Hen Harrier\_Fife\_T&FRSG; Hen Harrier\_CSRSG; Hen Harrier\_D&GRSG; Hen Harrier\_HRSG; Hen Harrier\_L&BRSG; Hen Harrier\_Perthshire\_T&FRSG; Hen Harrier\_SSRSG; Hen Harrier\_URSG). You can choose/change the account you want to operate as by clicking the blue 'Operate' button (C) at the end of the row.

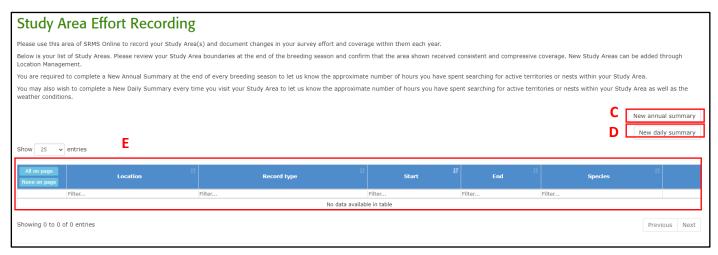


## 2. How to complete a daily summary of your effort recording

Study Area Effort Recording' can be accessed from the 'Effort Recording' (A) menu tab on the navigation panel (available from anywhere in the application) or the 'Effort Recording' (B) icon (available on the 'Home' page), both of which will bring you to the Study Area Effort Recoding page.



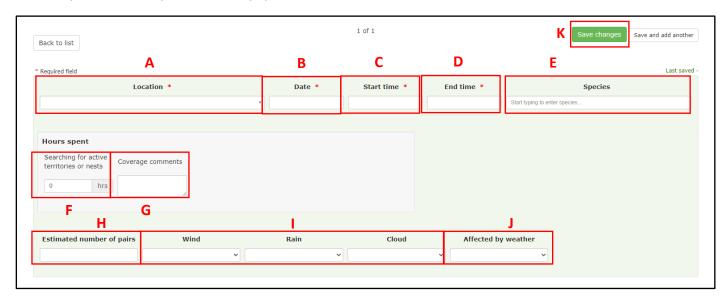
From the Study Area Effort Recording page, you can choose whether to complete a 'New annual summary' (C) or a 'New daily summary' (D). Once you have completed a summary it will be listed in the table (E).



We would strongly encourage you to complete a New Daily Summary every time you visit your Study Area to let us know the approximate number of hours you have spent searching for active territories or nests within your Study Area as well as the weather conditions.

If you click on the 'New Daily summary' button you will be brought to the following view. There are several compulsory fields to complete (indicated with red asterisks) which must be completed in order to save the summary.

- Location your 10 km census square(s) should be available for selection in the drop-down (A).
- Date the date you visited your census square (B).
- Start time the time you started your monitoring within your census square (C).
- End time the time you finished your monitoring within your census square (D).
- Species select your focal study species (E).



Please let us know the approximate number of hours you have spent searching for active territories or nests on this visit (F).

Use the coverage comments box (G) to let us know anything noteworthy about your monitoring coverage on this visit (for example you might only manage to monitor a particular section of the census square on a particular visit so you could make an informative comment about the areas that you were(n't) able to cover). You can use let us know your estimated number of pairs occupying your census square on this visit (H). There may be cases where no Hen Harriers are found in a 10-km square so where this is the case complete the 'Estimated number of pairs' with Zero.

Let us know the weather conditions (I) during you visit and the extent to which you believe that they impacted your monitoring (J).

Once you have inputted all the relevant information you can click on the green 'Save changes' button (K) and the information that you have provided should appear in the table on the Study Area Effort Recording page.

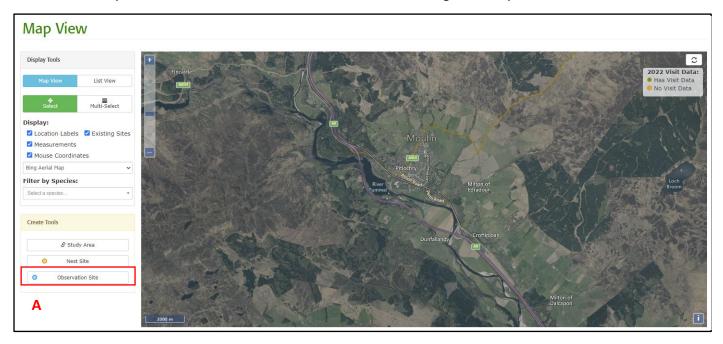
## 3. How to record the details of any Hen Harriers seen

Use Map View to create 'pins on the map' where you record any Hen Harriers, first create the most appropriate location (Observation Site or Nest Site) and then record your more detailed information against it.

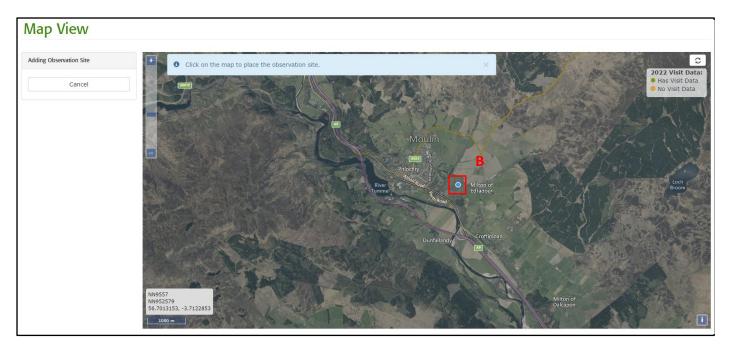
<u>Observation Site</u> – you can record any sightings of Hen Harriers away from 'pinned-down' nest sites against an Observation Site. An Observation Site is the position of the sighting (e.g. the place that you observe a pair of Hen Harriers displaying) rather than where you are standing when you make the observation (i.e. a vantage point). <u>Nest Site</u> – you can record any data at or in the immediate vicinity of 'pinned-down' nests against a 'Nest Sites'.

#### How to create an Observation Site

To accurately plot the position of an Observation Site, having zoomed and panned to the appropriate place on the base-map, click on the 'Observation Site' button (A) in the 'Create Tools' box. Before you do this you will likely want to zoom in closely in order to define the location of the Nest Site with high accuracy.



Then simply click on the map (B) to pin-point the location of the Observation Site.



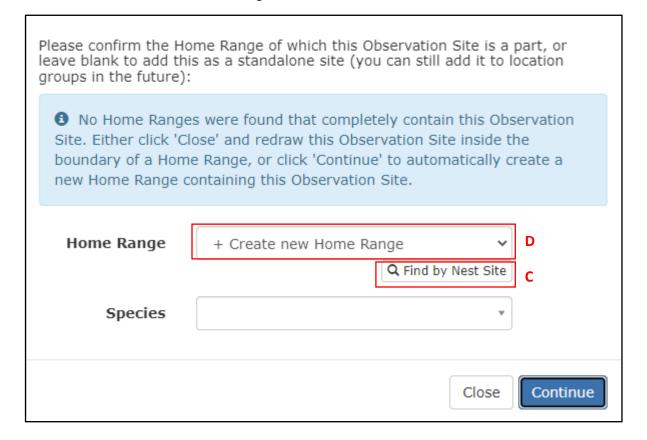
Upon clicking the screen, you will be prompted to select the Home Range you would like to add your Observation Site to.

If there are any Home Ranges already in the system, that cover this area, these will be listed in the drop-down menu. If you do not remember the Home Range code by heart, you can click on the 'Find by Nest Site' button (C).

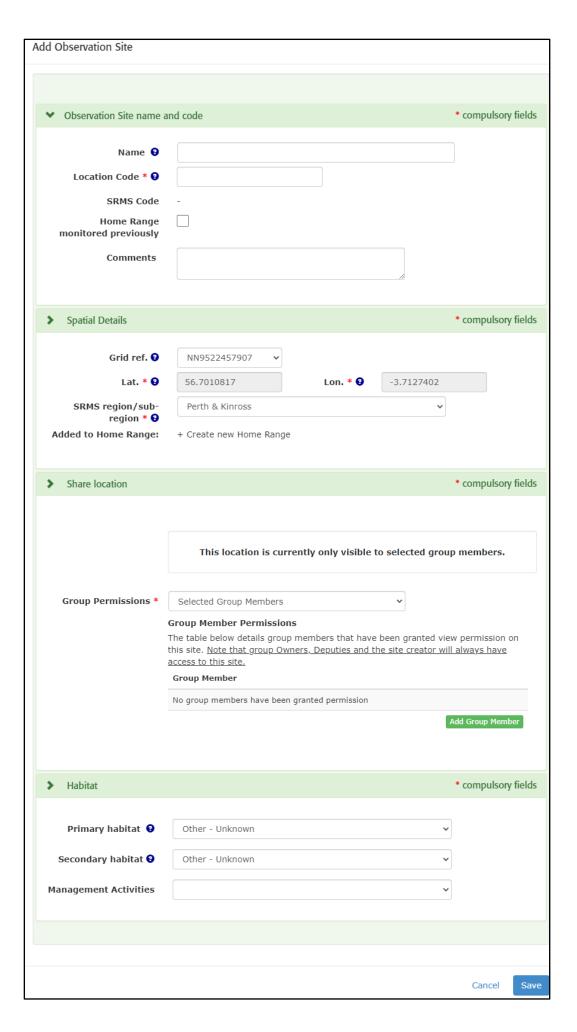
Alternatively, you can add your Observation Site to a new Home Range by clicking 'Create new Home Range' (D).

The system will automatically, 'behind the scenes' define the extent of a **Home Range** for each Observation Site, the size of which is species specific - 4 km x 4 km for Hen Harriers.

You can review the list of all Home Ranges and their associated Nest Site or Observation Sites in List View.



Once you have selected the Home Range you want to add the Observation Site to, a form will appear to allow you to fill in the associated details for the new Observation Site. Any box with a red asterisk against it is compulsory. The contents required by each field should be relatively intuitive but note for some an extended description is available if you hover your mouse cursor over blue 'info' symbol.



**Observation Site name and code:** This form will allow you to define a Name and a Location Code of your own format. A SRMS code will be assigned to every Observation Site by the Scheme, and this will not be editable by users.

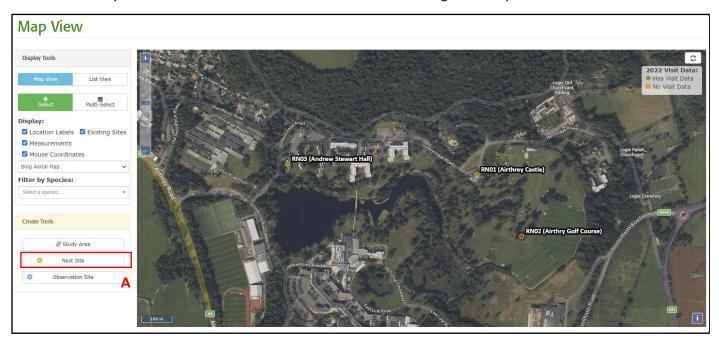
We would recommend that you adopt a Location Code system based on the species, person making the observation and the date. e.g. HH\_LK\_01Apr2023 (a Location Code for a Hen Harrier observation made by Leah Kelly on 1<sup>st</sup> April 2023).

**Habitat:** Here you can record the habitat surrounding the Observation Site. Primary habitat refers to the predominant habitat in the immediate vicinity of the Observation Site, whereas secondary habitat is the one attached to or surrounding this, such as agricultural land and this should be recorded as the Secondary Habitat. You can also record any observed management activities, such as game keeping or stalking activities.

Hen Harrier Survey Habitat Codes	Equivalent SRMS Online Habitat Codes	
H - Heather-dominated moorland	Heathland and bogs: Heather moorland	
G - Grass-dominated moorland	Semi-natural grassland/marsh: Semi-natural grassland/marsh - Grass moorland Heathland and bogs: Mixed moorland	
	Coniferous woodland: Young commercial	
	Coniferous woodland: Young semi-natural Deciduous woodland: Young	
Y - Young plantation	Mixed woodland: Young	
	Coniferous woodland: Mixed-age commercial or semi-natural	
	Deciduous woodland: Mixed-age	
	Mixed woodland: Mixed-age or semi-natural	
T - Thicket plantation	Scrubland: Other scrub	
	Coniferous woodland: Mature commercial	
	Coniferous woodland: Mature semi-natural	
	Deciduous woodland: Mature	
M - Mature Plantation	Mixed woodland: Mature	
O - Other (please state)		

#### How to create a Nest Site

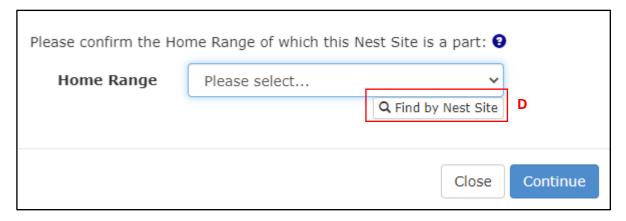
To accurately plot the position of a Nest Site, having zoomed and panned to the appropriate place on the base-map, click on the 'Nest Site' button (A) in the 'Create Tools' box to the left of the map. Before you do this you will likely want to zoom in closely in order to define the location of the Nest Site with high accuracy.



Then simply click on the map (B) to pin-point the location of the Nest Site.



Upon clicking the screen, you will be prompted to select the Home Range you would like to add your Nest Site to.



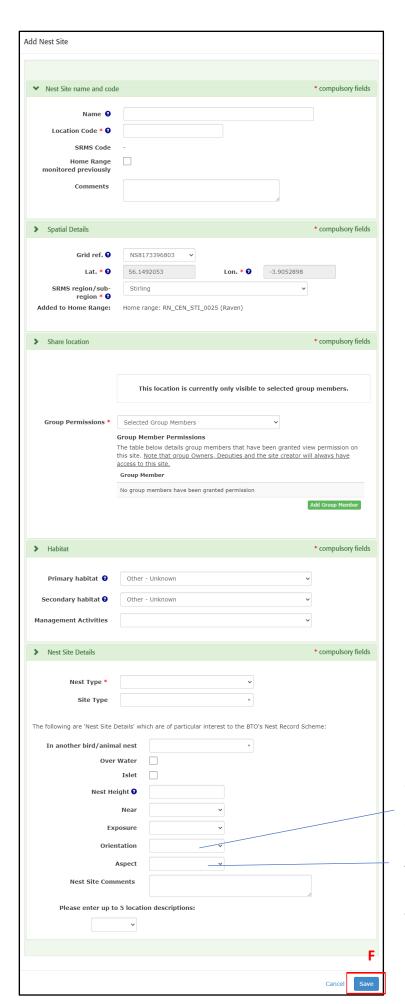
If there are any Home Ranges already in the system, that cover this area, these will be listed in the drop-down menu (C). If you do not remember the Home Range code by heart, you can click on the 'Find by Nest Site' button (D).



Alternatively, you can add your Nest Site to a new Home Range by clicking 'Create new Home Range' (E) within the drop-down menu. The system will automatically, 'behind the scenes' define the extent of a **Home Range** for each Observation Site, the size of which is species specific - 4 km x 4 km for Hen Harriers.

Once you have selected the Home Range you want to add the Nest Site to, a form will appear to allow you to fill in the associated details for the new Nest Site. Any box with a red asterisk against it is compulsory. The contents required by each field should be relatively intuitive but note for some an extended description is available if you hover your mouse cursor over blue 'info' symbol.

Once you have completed the details click the 'Save' (F) button.



**Orientation**: Refers to the direction a nest box opening faces or the side of the tree or slope/cliff face the Nest Site is located.

Aspect: Refers to the aspect of ground either the Nest Site is located on, or the nest tree is located. For example, a cliff-nesting bird, would be on a vertical aspect, whereas a tree nesting bird, could have a flat or sloping aspect on the ground.

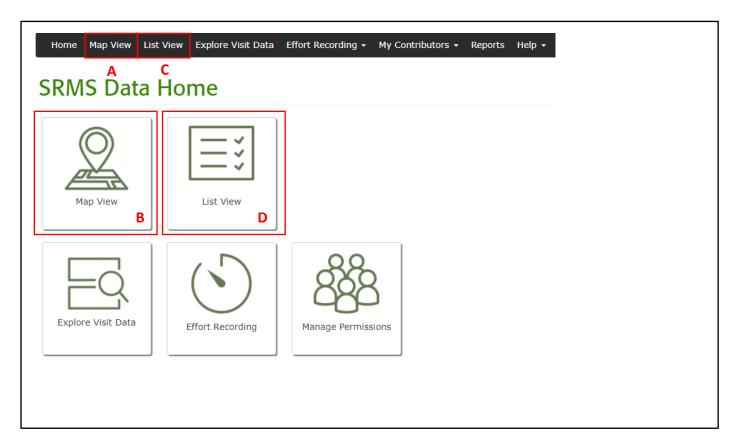
**Nest Site name and code:** Here you can assign a Name and a Location Code of your choosing. A SRMS code will be assigned to every Nest Site by the Scheme, and this will not be editable by users. You have also an opportunity to add any additional comments (for example, about how to approach the location for monitoring purposes) and to record whether any monitoring may have taken place at the Nest Site previously. If you choose this, you will be given an option to fill in the code/name that the Nest Site may have been referred to in the past, which will help SRMS to make the link to any records that may exist in the database already for this Nest Site.

#### How to add Visit Data

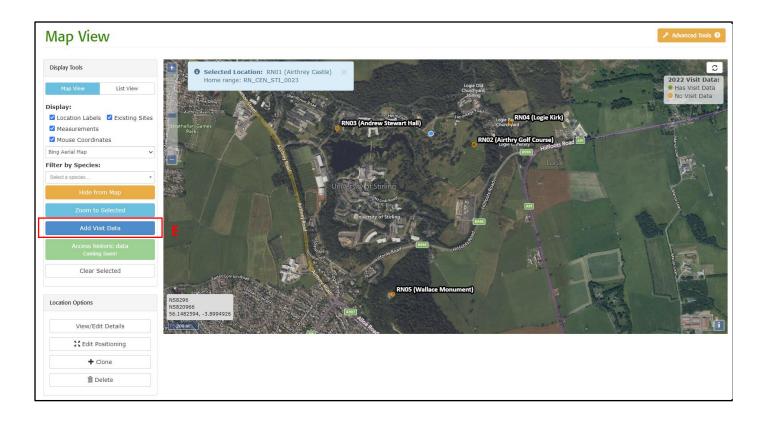
SRMS Online provides both a map-based and list-based means of adding data from your monitoring visits.

If you prefer to work with maps you can Add Visit Data through **Map View**. Map View can be accessed from the 'Map View' menu tab (A) on the navigation panel (available from anywhere in the application) or the 'Map View' (B) icon (available on the 'Home' page).

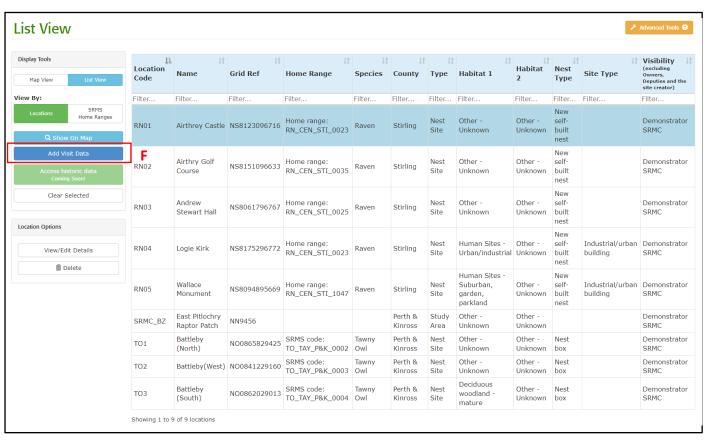
If you prefer to work with lists or tables you can Add Visit Data through **List View**. List View can be accessed from the 'List View' menu tab (C) on the navigation panel (available from anywhere in the application) or the 'List View' (D) icon (available on the 'Home' page).



If the location(s) that you are wishing to add visit data for are displayed on your Map View you can select the location that you wish to add data for and then click on the 'Add Visit Data' button (E) in the 'Display Tools' panel.



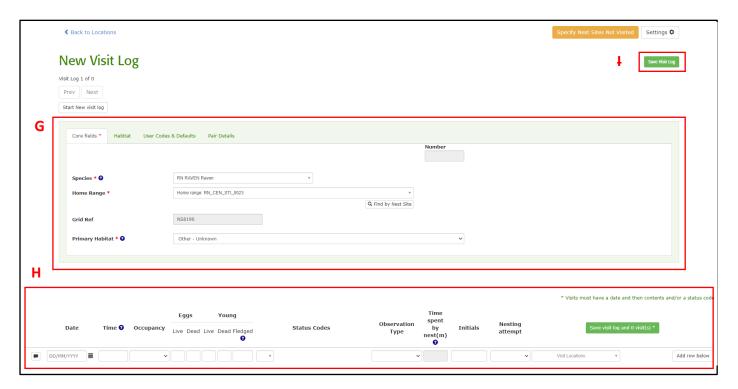
If the location(s) that you are wishing to add visit data for are displayed on your List View you can select the location that you wish to add data for and then click on the 'Add Visit Data' button (F) in the 'Display Tools' panel.



Having clicked on the 'Add Visit Data' button you will arrive at the Visit Log form. The Visit Log form itself is comprised of a number of parts. There is the header panel (G), itself consisting of four tabs:

- Core fields ensure you pick an appropriate Primary Habitat for the Home Range.
- Habitat
- User Codes & Defaults you might want to save yourself a little time by pre-populating the Initials Default with the initials of the observer(s) who will be monitoring the Home Range in question and the Observation Type Default with "National survey visit". You will be able to change these for individual visits when appropriate.
- Pair Details

Below the header panel is the area (H) in which you record details of your observations during each visit to the Home Range, row by row, including the exact location within the chosen Home Range.



Having entered values in the various fields (more detail on each tab below) in these four tabs, for the compulsory fields (indicated by an asterisk), you can save the Visit Log by clicking on the green 'Save Visit Log' (I) button.

Underneath the header panel, you can add the details of each of your visits to the particular Home Range. You can either add several visits to your log all at once at the time of creation or you can return to add visits at any future date. Each visit is recorded on a row of its own in an area under the header panel. The compulsory fields which need to be completed in order to save a visit are the date and nest contents/status code, but please ensure that you complete all available fields as fully as possible. You can also attach a comment for each visit to write down any noteworthy information that may, for example, assist you with coordinating your monitoring (K).

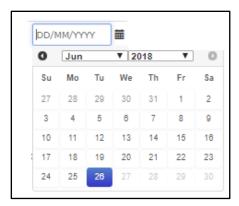
Once you have inputted the relevant information you need to click on the green 'Save Visit Log and X visit(s)' (L) button.



Saving may be blocked where an entry is not in the appropriate format (e.g. a date entered in the incorrect format) and where this occurs warnings will appear in red above the visit rows.

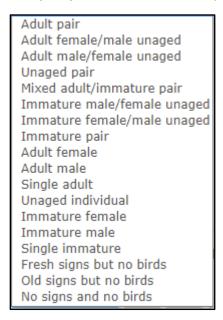
The system can also detect when potential mistakes have been made in data entry (e.g. where unexpected status codes being used based on the number of days from first hatching), so that these can be checked and, if necessary, corrected prior to saving.

**Date:** Either type the date in directly using a four digit year format i.e. 'ddmmyyyy' or 'dd/mm/yyyy', or click on the calendar symbol next to the date field to bring up a date selector.



**Time:** Enter 24-hr time of visit as hhmm or hh:mm. Ensure you use leading zeros for hours and minutes between 0 and 9. This can be used to track when most monitoring takes place and how this may affect monitoring results.

**Occupancy:** Pick the relevant occupancy from the drop-down list.



#### **Nest Contents (Eggs and Young)**



- Eggs
  - o **Live:** Enter number of live eggs (assume egg is alive unless there is evidence to the contrary).

 Dead: Enter number of infertile/dead eggs. Only use the Dead Eggs column if you are certain that eggs are infertile/addled, or to record broken eggs inside the nest, or eggs that have been thrown out of it.

#### Young

o Live: Enter number of live young.

Dead: Enter number of dead young.

Fledged: Enter number of fledged young

If no counts are entered in the nest contents, it is assumed that there were no contents. It is therefore important for you to complete these details where you know contents to be present even if you need to provide an approximate rather than accurate count.

You can enter '?' where the contents cannot be counted with certainty or if the adult is sitting and you cannot see the contents.

You can include a '+' after the number to indicate a minimum count. e.g. 6+ if there are six or more eggs or young.

**Status Codes:** A series of two-letter status codes provide an easy way to describe the stage of development of the nest, eggs and young, as well as the observed activities of the parent birds and the eventual outcome of the nest. Some of the codes most pertinent to Hen Harrier monitoring are:

Hen Harrier Survey Behaviour Code	SRMS Online Adult Activity	SRMS Online Pair Activity
D - Display	AO - Adult displaying	PO - Pair displaying
F - Food pass	N/A	PA - Food pass between pair
H - Hunting	AH - Adult hunting	PH - Pair Hunting
A - Alarm	AX - Adult alarming	PX - Pair alarming
M - Mobbing	AG - Adult aggression/agitation behaviour	PG - Pair aggression/agitation behaviour
O - Other (please state)		

You can enter multiple <u>status codes</u> (maximum 5 per visit) to describe what you have observed during your visit as appropriate e.g. a code for adult activity, a code for nesting stage and so on. Initially only one status code box is displayed but as you add each code a new box will be displayed. If you know the codes you want to use you can simply type them into the boxes (for example AX: Adult alarming & AY: Audible young in nest).



Alternatively, you can choose codes from the list in the drop-down selector.

To help you locate an appropriate code, codes are grouped into the categories:

- TERRITORY
- NEST BUILDING STAGE
- PARENTS
- EGGS
- YOUNG

OUTCOME: SUCCESSOUTCOME: FAILUREOUTCOME: UNKNOWN

#### NO BREEDING

Observation type: Select the type of observation that you made - "National survey visit".

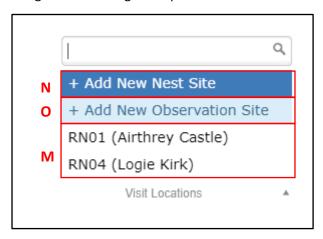
Remember that you can set 'Observation Type Default', in addition to 'Initials Default' under the 'User Codes & Defaults' tab.

**Time spent by nest (minutes):** If you have conducted a visit to a nest, please record the time in minutes spent at or near the nest. This is a useful measure for the impact of observer disturbance at nests.

**Initials:** Please record each individual who contributed towards this record. If you cannot find people in your drop-down list, you can add people to your list of observers to appear here under 'My Contributors'/'Observer List'.

**Nesting attempt:** If you can confidently do so, you can record the number of the nesting attempt for species which may have several broods (e.g. Barn Owl) or have the capacity to relay following a failure early in the breeding season (e.g. Hen Harrier). If not completed the system will automatically record it as the first attempt.

**Visit Locations:** Here you should record the exact location within the Home Range, that your observations were made. You can either select an existing Nest Site or Observation Site grouped under the chosen Home Range or create a new one. Each of your visits within a Visit Log may have a different location, but these need to refer to the same Home Range and breeding attempt or the lack of it.



The 'Visit Locations' field offers three options:

- 1. You may select an existing location from those available in the Home Range in question (e.g. you may have multiple alternative Nest Sites within a given Home Range that are used "in rotation" between years) (M).
- 2. You may create a new Nest Site, one not previously defined, 'on the fly' by selecting '+Add New Nest Site'.

If you have visited a known Home Range but have found the birds nesting in a new Nest Site, you have the ability to add this new Visit Location as part of your visit record. On the 'Visit Locations' field, select the '+ Add New Nest Site' option (N).

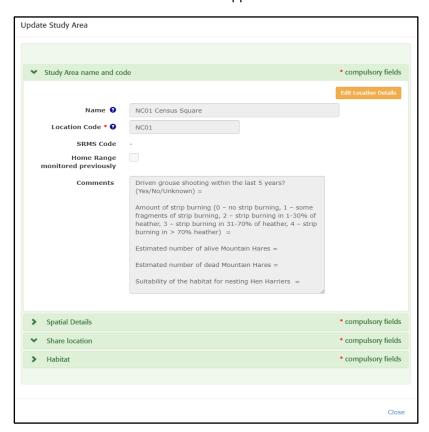
3. You may create a new Observation Site 'on the fly' by selecting '+Add New Observation Site' (e.g. you may wish to record an observation away from the nest such as territorial behaviour or an observation of fledglings) (O).

# 4. How to record additional information pertinent to the census square

Select the census square in Map View.



This will bring up the 'Location Options' box (A) in the left-hand panel offering five options. If you click on the "View/Edit Details" button the form below will appear.

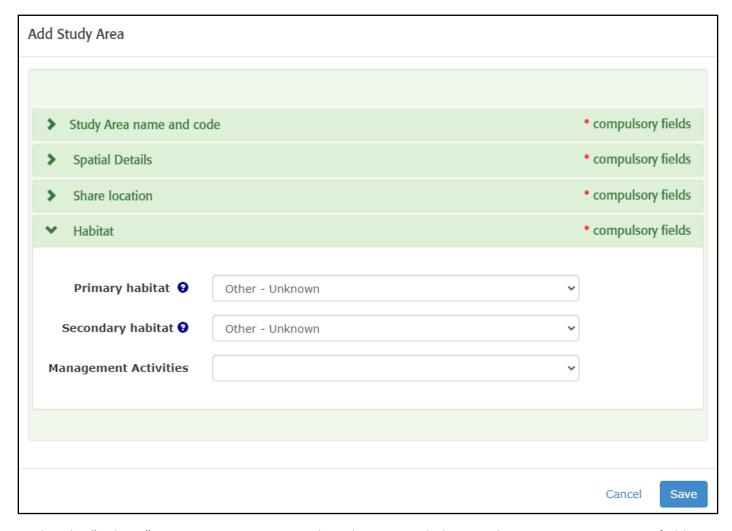


Use the comments field in the "Study Area name and code" section of the form to record additional information pertinent to the census square:

- (i) state whether you know if there has been any driven grouse shooting on the moor within the last 5 years (Yes/No/Unknown).
- (ii) the amount of strip burning in the heather moorland of a 10-km square using the following categories:
  - 0 no strip burning
  - 1 some fragments of strip burning
  - 2 strip burning in 1-30% of heather
  - 3 strip burning in 31-70% of heather
  - 4 strip burning in > 70% heather

Note that even when heather moorland only makes up a small total percentage of the available habitat in a square, if strip burning occurs in most of it, then you would still consider the extent of strip burning to be a category 4.

- (iii) Estimate of the number of alive Mountain Hares observed in a 10-km square.
- (iv) Estimate of the number of dead Mountain Hares observed in a 10-km square.
- (v) Comment as to your opinion of the suitability of the habitat for nesting harriers.



Within the "Habitat" section ensure you complete the Primary habitat and Management Activities fields.