

## Annex 1 – Instructions provided to volunteers for the trial surveys of river birds in the winter of 2021/22



# Winter Sawbill & River Bird Survey: methods trial



GOOSANDER, BY MOSS TAYLOR / BTO

### INSTRUCTIONS FOR VOLUNTEERS

Thank you for taking part in our pilot survey of river birds. This project aims to develop methods to monitor a range of birds associated with riverine habitats, which are historically under-recorded in many areas. Previous surveys of river birds have involved the use of canoes or walking long stretches of river bank, but this pilot explores the effectiveness of stationary point counts at locations along the river, an approach that should be more widely applicable. This pilot study is funded by NatureScot with a particular emphasis on improving monitoring of fish-eating birds. However, we would like to take advantage of this opportunity to try some alternative approaches to monitoring a broad array of riparian species. We have based this methodology on work carried out on rivers in Maine, and while we can't guarantee a Bald Eagle or a Hooded Merganser, we hope you'll find these surveys enjoyable.

### METHODS

#### Equipment

Surveyors will require the following equipment for the survey:

- Binoculars;
- Writing implement;
- Clipboard/weather writer;
- Field sheets and maps (supplied by BTO Scotland).

#### Location

For the purposes of the trial study, the surveys are currently restricted to four rivers; the main channels of the Forth, Teith, Spey and Conon upstream of the tidal limit. Each river will be divided into 5 km sections. There are overview maps which show the numbered sections of each river, and you may choose any one or more of the sections to take on as your survey section. These will be allocated on a first-come first-served basis. In your selected section we would like you to identify between one and five vantage points from which to carry out timed counts. These vantage points could be from a bridge, from a high part of the river bank, or a clear bend in the river. Ideally, you should be able to see up to 100 m of water up and down stream. Please ensure that the area of the river visible from the vantage point does not overlap with the area visible from any of your other selected vantage points. We will provide you with paper maps of your survey section and we would like you to mark on the map the area that you can see.

#### Timing

You can carry out as many vantage point surveys as you like in a day. Surveys will take place during daylight hours, between an hour after first light and an hour before darkness. This is so we can avoid times of day when more birds will be leaving or commuting to roosts, potentially making data more difficult to interpret. These surveys will take place from December 2021 to the end of February 2022. Ideally, surveys should be repeated monthly, but if you are only able to do one or two surveys that would still be extremely valuable for this study.

**What to record**

You will be provided with a field data recording sheet to enter your data into, either in the post or downloadable if you are able to print them yourself. This field sheet will include the list of the main species that we would like you to record, with options to record others. There is also space to record any sightings of otter, mink or beaver, if you feel confident enough in identifying these species: we will share these sightings with the Mammal Society.

Each point count will last 10 minutes, divided into two 5 minute windows. Optionally, you can extend the survey to 15 minutes if you have a lot of bird activity on the stretch of river you are observing. Please record the number of each species encountered in the five minute window. Record separately the number of birds that arrive in the survey area during the 5 minute window, by circling the number written in the relevant box. Where possible, record the number of females and males. Optionally, you can also record the behaviour of the birds using the notation suggested at the bottom of the field sheet: underlined for feeding, double underlined for roosting or loafing, followed by an exclamation point for courtship behaviour and followed by an asterisk if the birds are flushed. Record separately birds that are seen flying over the river but not remaining in the area of the river you are surveying. Flying birds should be indicated by a number followed by an arrow and then either 'U' for upriver or 'D' for downriver. We are asking for sightings to be divided into 5 minute blocks so we can assess optimal durations for potentially more extensive monitoring programmes using similar methods. If you record no birds in the 5 minute window, please write "No Birds" in the top row of the field sheet.

Ideally, we would like you to avoid walking along the river bank to your vantage point, to minimise the risk of flushing birds into or out of your recording area, but this might not be possible in many cases. If you are walking into your vantage point location along the river bank, you can record any of these incidental sightings of river birds in the 4th column of the survey field sheet.

**When not to survey**

Please do not survey if visibility is reduced to such an extent that you cannot see enough of the river, for example if it is foggy or if there is heavy, persistent rain. Also do not survey if the river has burst its banks and there is flooding to the extent that you cannot reliably see many of the birds that would otherwise be in the river channel.

**Post-survey**


After the survey, please ensure that your field sheets are returned to us via post or scanned and then sent by email. An important part of this trial is capturing how volunteers felt about the survey and so we would like you to fill in a short questionnaire about your experiences, and we would like to hear your opinions and feedback about the survey.

**Health and Safety**

Working by water is potentially dangerous. Please ensure you prioritise your own and others' health and safety over the completion of the survey. You can find BTO's volunteer health and safety information following this link: <https://www.bto.org/how-you-can-help/take-part-project/health-safety>

**Contact**

Please contact Anthony Wetherhill ([anthonywetherhill@bto.org](mailto:anthonywetherhill@bto.org)) or Steve Willis ([steve.willis@bto.org](mailto:steve.willis@bto.org)) if you have any queries about this survey. BTO Scotland, Beta Centre (Unit 15), Stirling University Innovation Park, Stirling, FK9 4NF



# Survey Summary

*Parts in italics are optional components.*

## PRE-SURVEY

- Select your 5 km section of river from the overview map – these are allocated on a first-come first-served basis.
- Identify one or more stationary vantage points from which to carry out your survey.
- Carry out your survey from one hour after first light to one hour before dark.
  - *Record incidental sightings of birds seen on the walk into the vantage point on the map or 4th column of the field sheet.*

## DURING THE SURVEY

- Surveys last for 10 minutes, broken down into two 5 minute windows
  - *Optionally you can extend the survey to 15 minutes.*
- Record numbers of river bird species present on the river from the start of each 5 minute window.
  - *Optionally record sex and behaviour of birds where possible*
  - *Record river mammals if seen and where confident of identification*
- Record numbers of river bird species arriving onto the river in each 5 minute window separately from those already on the river.
  - *Optionally record sex and behaviour of arriving birds where possible.*
- Record number of river bird species seen flying over the river but not remaining with general direction (Upriver or Downriver) separately from those on the river.
- Use the following notation to indicate arrival/departure and sex/behaviour if recording these:
  - **F** = female    **M** = male
  - **↗** = Flying    **U** = Upriver    **D** = Downriver
  - **Circle records of birds arriving into the survey area**
  - **Underlined** = Feeding    **Double Underline** = Roosting    **!** = Courtship
  - **\*** = Flushed

## POST-SURVEY

- Ensure the fieldsheet is completed with name, location, date and time.
- If no birds are recorded in a 5 minute window please write “**NO BIRDS**” in the top row of the column.
- Mark on the map the location of the vantage point and the estimated visible area of the river.
  - *Mark any sightings of birds seen or flushed on the walk-in to the vantage point on the map using the same notation as above.*