

Bird Atlas 2007-2011 **And a new tetrad atlas for Lothian & Borders**

You may be aware that alongside the fieldwork for the new national BTO/SOC/BWI Bird Atlas, there will also be a new local project to map the birds of Lothian and Borders at a finer scale – 2km x 2km (a tetrad) rather than at 10km square level for the national (“BTO”) atlas.

The Breeding Birds of South-east Scotland (published 1998) mapped the distribution of birds in 1988-1994, so this new project will allow direct comparison of local bird distributions over a 20-year period. And never before have we been able to map winter distributions at this scale. Exciting times indeed! A team of 9 local birders has been set up to run this project, led by Ray Murray (Atlas Organiser for Borders) and Mark Holling (Atlas Organiser for Lothian).

To participate in the local atlas project, at this stage all we ask is that you do the planned fieldwork for the BTO Atlas, using the same forms (on-line or paper) and as described on the Atlas website www.birdatlas.net or on the Introduction and Instructions sheets which we can supply. All data submitted to the BTO scheme will be made available to our project to map the birds of SE Scotland. There are just a few small points to be borne in mind to ensure the usefulness of the data for the local atlas.

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Additional Guidelines for SE Scotland Tetrad Atlas – Breeding Season

[published April 2008]

The national BTO/SOC/BWI atlas aims to get the best species list for every 10km square. For the local atlas we aim to get the best species list for each TETRAD and at the same time to get full coverage of the Lothian & Borders regions. To achieve this, we would ask you to follow these guidelines.

TIMED TETRAD VISITS (TTVs)

The overall fieldwork method for these tetrad-based counts is the same as described in the BTO instructions. However, we would ask you to plan your local fieldwork in this manner:

- As per the BTO guidelines, over the course of your two timed visits (April/May and June/July), aim to visit all habitat types within the tetrad. This will help maximise the species list for the tetrad. In the breeding season this may require some extra work beyond your timed counts.
- A minimum of ONE HOUR should be spent counting and recording the birds in each tetrad, but in the breeding season almost every tetrad will require longer than this in order to obtain the best evidence of breeding. We would therefore recommend you either:

(a) count for TWO hours, and then target species you think you might still expect in the tetrad, or

(b) count for just the first hour, and then continue looking for other species as long as is required; i.e. until you think you have found everything you could reasonably expect given the habitats and the time in the season.

- If you prefer you can re-visit a tetrad anytime within the breeding season and record any additional species and/or breeding evidence as Roving Records.
- Any species added to the tetrad list beyond the counting period can be entered on the form as a tick in the Extra () column. You will have to be the judge of how long you stay, based on the variety of habitats in the tetrad and the rate at which you are finding new species.
- In remote areas where a great deal of effort is required just to reach the tetrad(s) to be surveyed, it may be preferable to limit your counts to just one hour (staying a little longer if other species are still expected), but then move on to do a TTV in an adjacent, new tetrad, thus maximising coverage. This is especially true for distant hill tetrads with little habitat diversity.
- Tetrad Population Estimate - Over the course of the two visits, regardless of how much time you have spent in the tetrad, you will have gained some idea of the numbers of each species in the tetrad. Only an approximate estimate is required, and this field is optional if you are not confident. You should base your estimate on the highest figure recorded after your two visits, and make allowances for areas of the tetrad that were not visited. If you think there are between 1 and 10 individuals, enter the actual number; if between 10 and 100, enter the estimate to the nearest 10 (e.g. 30), and above that to the nearest 100 or 1000. The Tetrad Population Estimate should only be made after the second visit when you will be in the best position to judge the likely population.

TIMING OF VISITS

Experience from doing TTVs in early April suggests that this should only be done if you have a lot of tetrads to be surveyed during the breeding season and you won't otherwise have time to cover them all! Starting from mid-April would be best, although covering urban areas early in April, working into more rural and higher altitude areas as the season progresses is a good plan to maximise time. Remember that birds start to go quiet from mid June, especially outside the early morning period, and by mid July even recently fledged juveniles can be difficult to find. It is therefore best to have all TTVs completed by mid July. If any must be later, concentrate on open habitats, but beware of post-breeding movements of waders, Starlings & corvids (see advice on breeding codes – use U for these).

COUNTING COLONIES

The BTO have issued this special advice on counting colonies during the breeding season:

Some 28 species are designated as colonial. These are indicated on the breeding season TTV form by an asterisk in the main table, and there is a Colony Table on the last page (paper and online).

For certain colonial species – Grey Heron, Sand Martin, Rook – record species presence & breeding status, and keep a note of any colonies encountered during your TTV (tick "colony present" on last page of TTV form); if possible attempt a count or estimate of occupied nests (having 'stopped the clock' temporarily).

Also count adult individuals of these species away from the colonies (but not adults at colonies). For example, you may see a Grey Heron feeding on a lake or river so you enter this count in either the 1st hour/2nd hour count column as normal. If there is a heronry in your tetrad the minimum requirement is to tick the column on the Colony Table to say a colony is present. If

time/accessibility permits you can enter an estimate of the number of Apparently Occupied Nests. Another example on the coast would be you encounter some Razorbills on the sea so you count these as normal as part of your timed count. If there is a colony present in your tetrad you would tick the box to say a colony is present and optionally add a count of the estimated number of individuals at the colony. Remember that for these colony species, just one pair or one nest counts as a colony.

Remember that you can stop the clock during a TTV to make a colony count, including the time it might take to get to the colony.

If you want to go back at a later date (but in the same year) and make a count of the colony you can add this to the Colony Sheet – either on paper forms or online. It doesn't matter if the count is made on a different date to the TTV. On the website you can easily edit a count or add a count if you have already added a tick to say a colony is present. If you need to add a new species to the colony table the facility does not exist yet to add a species so you will need to delete page 5 and re-enter all species (hopefully won't happen very often that a colony springs up in your tetrad!).

In summary:

- Counts entered for colonial species for a tetrad should include only the total number of nests within the tetrad boundary.
- Colonies outside your tetrad should be logged in a separate TTV or as Roving Records (if you are not doing that TTV), with count and with a breeding code. This includes counts for parts of colonies lying outside your tetrad.
- For heronries, please consider completing a Heronry Census card available from BTO Regional Reps.
- For colonial species, especially Rook & Sand Martin, count any feeding birds you find during the TTV, but count NESTS in the colony separately (onto the colony form).
- The best way to get Tetrad Population Estimate for these species is to double the number of nests in tetrad.
- Remember that the local bird reports want whole colony counts – even if these straddle tetrad boundaries, so please also record the whole colony count for each species, with a central 6-figure grid reference, and submit them to the local bird recorders in the usual way. For Sand Martin colonies on rivers, note which bank of the river the colony is on please (use N/S/E/W as appropriate).

ADVICE ON THE USE OF BREEDING CODES

The main difference between winter and breeding season fieldwork is that in the breeding season we are asked to provide a code indicating the BEST evidence of breeding you have been able to find for a species in the tetrad. The general instructions give some more advice on this, but below we have included some additional tips and examples to further help you.

Remember the **key point – we are trying to get the highest evidence on the list**. For almost all records, the minimum code would be H – one bird present in breeding habitat only. Thus inland Oystercatchers and Meadow Pipits on grassland would almost certainly be scored as H. But it is not difficult to gain evidence of “probable” breeding through the presence of a pair or display. Code T for territory is especially helpful here as it can be used for any species where two or more birds are singing against each other at any one time. Later in the season confirmed breeding is easier to find because of adults seen carrying food for young, or recently fledged young birds.

There is a category for non-breeding birds, which should be used sparingly – only if the bird is not in breeding habitat. Recording birds to this category is useful to enable us to map the summer distribution of, for instance, Grey Herons, gulls, Swifts, hirundines and post-breeding flocks of

corvids and Starlings which are using a tetrad but are not breeding there. These should all be coded as U (see below). Early in the season, obvious passage migrants (such as Wheatears in fields or on beaches) and late wintering birds can be coded M for migrant.

Please ensure you use a code for all breeding season records as then we know you have determined the breeding status and not just accidentally omitted it. You should aim where possible to get as many species as possible into the probable or confirmed breeding category by the end of the two visits.

Non-breeding

F Flying over

This category can only be used for Roving Records, and is of little use to the Breeding Atlas. If a bird is flying directly over the tetrad and not using the square (as opposed to flying over but landing a short distance away) then it is safest to ignore the record, unless it is a very scarce species (like Osprey) where it would be useful to log the occurrence.

M Species observed but suspected to be still on Migration

This can be used for any clear migrant, even common species arriving in an area and not on breeding habitat. For instance Meadow Pipits staging on arable fields before moving to rough grassland; flocks of Golden Plover moving north in spring; migrating Wheatears in arable fields.

*We suggest that this category is used for **late wintering species**, e.g. the Whooper Swans, Pink-footed Geese and other waterfowl that do not breed locally but may be encountered in April and May. It will be useful to record flocks of Fieldfare so include them in this category.*

U Species observed but suspected to be sUMmerring non-breeder

This category should be used for colonial species away from the colony. This should be the standard category used for all Rooks, Herons and Black-headed Gulls when there is no known colony in the tetrad. It should also be the default category for aerial feeders like Swift, Sand Martin, Swallow & House Martin, unless there is more definite evidence of breeding (do not use habitat category). Post-breeding flocks of corvids, Starlings and Crossbills should be coded as U. But be wary of downgrading your observations, most records will at least refer to birds in breeding habitat and therefore be classed as at least possible breeding,

Possible breeder

H Species observed in breeding season in suitable nesting Habitat

For almost all species this will be the fallback recording category. If the bird is doing nothing else it is likely to be in suitable habitat.

S Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat

In many cases this may be the only sign that a bird is present, indeed you do not actually have to see the bird if you are sure of the calls being heard are correctly identified. This is especially useful for nocturnal species like owls, and for shy species like Quail, Grasshopper Warbler and Green Woodpecker.

Probable breeding

P Pair observed in suitable nesting habitat in breeding season

If you see two (or more) individuals in species where there are no sexual differences (like Starling, Crow, Redshank etc.) you can assume that a pair may be involved. In species with sexual dimorphism, you must see one of each sex.

T Permanent Territory presumed through registration of territorial behaviour (song etc) on at least two different days a week or more at the same place, or many individuals on one day

If you encounter two males singing against one another simultaneously, you can raise the song category to the territory category. You will have to judge the meaning of simultaneously if the singers are further apart, but remember that their hearing is probably better than yours and that they will have hearing keyed to the frequencies used in the song. So even if you have moved a distance from the last singer, it may be possible to invoke territory.

- D** Courtship and Display (judged to be in or near potential breeding habitat; be cautious with wildfowl)

Some activities are clearly display rather than song. Drumming Snipe are displaying, diving over their territory (their 'chipping' calls are song). Drumming Woodpeckers are singing however. Black Grouse clearly only 'sing' on lek sites, which involves displaying. Any males fighting one another can be regarded as displaying.

Screaming parties of Swifts swooping between buildings, can be treated as Display, although parties could also be treated as involving a 'Pair'.

- N** Visiting probable Nest site

Birds disappearing into holes that may be potential nest sites would fit here. Tits, flycatchers, Treecreepers and other species are likely candidates for this category.

- A** Agitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby.

Be aware of these calls, often caused by your presence. Mistle Thrush will scold, Robin and Wren will tick, Waders will positively scream at you. If you are not the cause of the agitation beware that something else, perhaps a raptor or owl may be the cause and be observant. Always investigate agitated Blackbirds and Chaffinch on the chance of getting a Tawny Owl. Following up anxiety calls may also lead to a confirmed breeding record if the young are seen.

- I** Brood patch on adult examined in the hand, suggesting Incubation

This is for ringers. Although it is worth looking at any dead birds found to see if there is a brood patch – blow away the stomach feathers and see if there is bare skin with thick veins revealed.

- B** Nest Building or excavating nest-hole

Birds carrying sticks, collecting feathers or mud would qualify here.

Confirmed breeding

- DD** Distraction-Display or injury feigning

A Mallard 'flapper', a Lapwing or Ringed Plover scurrying, fit this category.

- UN** Used Nest or eggshells found (occupied or laid within period of survey)

With eggshells you may have to be careful near a tetrad boundary if they have been predated. Crows can carry eggs short distances.

Used nests is a category that cannot really be used until late in the first season (2008). After that season (from 2009) it is a useful way of getting Woodpigeon, Crow, Magpie, House Martin, Swallow, Dipper and similar species with conspicuous and long-lasting nests out of the way. Look for an old nest and that is proved breeding. Be more wary of old woodpecker nests – it is difficult to tell between the species (although Great Spotted will be the default one), and some may have been there for decades. So use discretion.

- FL** Recently Fledged young (nidicolous species) or downy young (nidifugous species). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat.

One major difficulty here is waterfowl on rivers. Mallard and Goosander broods can move considerable distances.

- ON** Adults entering or leaving nest-site in circumstances indicating Occupied Nest (including high nests or nest holes, the contents of which can not be seen) or adults seen incubating

Waders like Oystercatcher, Lapwing etc. do not routinely sit, and so sitting birds in a field are likely to be on nests. Swifts disappearing into a chink in a wall, Swallows flying into a shed, are also possible candidates.

FF Adult carrying **F**aecal sac or **F**ood for young

This is perhaps the key category for confirmation of breeding for many species, especially insectivores. Almost all species will swallow food straight away after capture. Therefore any species seen carrying insects in its beak will be feeding young. Similarly with birds of prey and owls with prey in their talons and Kingfishers with fish. Clearly an Osprey may be travelling several miles, so caution here.

NE Nest containing **E**ggs

NY Nest with **Y**oung seen or heard

Additional Guidelines for SE Scotland Tetrad Atlas – Winter

[published October 2007]

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TIMED TETRAD VISITS

The overall fieldwork method for these tetrad-based counts is the same as described in the BTO instructions. However, we would ask you to plan your local fieldwork in this manner:

- As per the BTO guidelines, over the course of your two timed visits (Nov/Dec and Jan/Feb), aim to visit all habitat types within the tetrad. This will help maximise the species list for the tetrad.
- Only count and record the birds for ONE HOUR. Use the "1st hour count" column for these records.
- After the first hour, you can remain in the tetrad for as long as you like in order to add new species to the tetrad list. These can be entered on the form as a tick in the Extra (☑) column. You will have to be the judge how long you stay, based on the variety of habitats in the tetrad and the rate at which you are finding new species.
- We would rather you limit your time in each tetrad in this way so that you can make best use of the limited daylight hours in winter by moving to another tetrad to do another TTV or to collect "Roving Records" elsewhere.
- Over the course of the two visits, regardless of how much time you have spent in the tetrad, you will have gained some idea of the numbers of each species in the tetrad. Only an approximate estimate is required, and this field is optional if you are not confident. You should base your estimate on the highest figure recorded after your two visits, and make allowances for areas of the tetrad which were not visited. If you think there are between 1 and 10 individuals, enter the actual number; if between 10 and 100, enter the estimate to the nearest 10 (e.g. 30), and above that to the nearest 100 or 1000.

You will probably find it easiest to use your notebook to record species found in each tetrad and the counts you make in the first hour. To assist you, we can provide a species list (for coastal or non-coastal tetrads) which gives you an idea of which species to expect in SE Scotland in the winter. Or you could use it to log your counts, estimates and each species recorded. Alternatively you could use the Atlas notebook supplied at £2 each. Please contact your Regional Organiser if you would like any of these additional aids.

Additional General Guidelines for SE Scotland Tetrads Atlas – all seasons *[published October 2007]*

ROVING RECORDS

All records within your chosen 10km square should be submitted together with the TETRAD that you saw/heard the bird in included. The forms say that this field is optional, but for the local atlas it is essential.

Records can be written up in a notebook while in the field and then the species and tetrad added to the online or paper form back at home.

FILLING IN THE FORMS

NB Please use the BTO's online system if you are able.

Timed Tetrad Visit form – Winter

Tetrad information (front of the form – your name and address and the tetrad you are reporting on, plus the dates of your two timed visits).

Species information (main part of the form – one line for each species).

For each species, for both early and late visits:

1st hour count column – this is where you write your own count, i.e. the total number of all individuals of the species you saw and/or heard within the first hour of your visit.

2nd hour count column – leave this blank (unless you actually did do 2 hours of counts, but remember we would sooner you did only one hour and then move to a different tetrad).

Extra () column – put a tick in this column for every other species you see or hear in the tetrad after your timed count (*).

Tetrad Popn Estimate column – this is for the estimate you make of the total numbers of this species present in the tetrad based on your two timed visits. Remember to round the total to the nearest 1 (if less than 10), to the nearest 10 (if between 10 and 100) and to the nearest 100 (if between 100 and 1000), etc. Use the highest count from your two visits. Further information on this is provided on page 3 of the Instruction sheet for Timed Tetrad Visits.

* Any additional species recorded in a tetrad outside your timed visits should be submitted as Roving Records or via BTO's BirdTrack. Therefore if you do visit a tetrad more often than the two timed visits, you may find it useful to keep a separate tetrad species list and use this to submit your records, to make sure all species are included.

Roving Records form – any season

Each form requires your name and address to be completed at the top of the form.

Then there is one line for each record, each record requiring the following:

10km – the 10km you recorded the bird. This consists of 2 letters, usually NT in Lothian & Borders but some are prefixed NS or NY instead, and then 2 numbers. Thus much of Edinburgh is in NT27, Aberlady Bay is in NT48 and Selkirk is in NT42.

Tetrad – this is essential, and it will be a single letter. The forms help you identify tetrad letters for all locations.

Town, village or feature in tetrad (or 10km square) – this is a name from the map for the tetrad, it enables the organisers to check the tetrad ID given.

Day/Month/Year – date of the record.

Species Name – name of the species.

Code – this is for breeding evidence and the codes are given on the forms and instructions. They are not generally used in the winter season, but if you do come across definite signs of breeding (nest, young, territory etc) then please include it as this information will be included in the breeding atlas.

Please submit your results promptly as soon as you are able, preferably directly onto the BTO Atlas website, or failing that by paper to the SOC at Waterston House, Aberlady.

Winter forms to be returned by no later than **31st March**.

Breeding season forms to be returned by no later than **31st August**.

Mark Holling Lothian RO

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on behalf of the SE Scotland Atlas Team