

RBBP Guidelines on mapping resolutions for Local Tetrad Atlas projects in Britain

Overview

Due care and consideration should be given to the mapping of all rare and scarce breeding birds by local atlas organisers before decisions on the scale of mapping resolutions for publication are made. Although there are some species which should never be mapped at the resolution of a tetrad, there are nevertheless a number of species where this fine scale is appropriate and should be encouraged. Much depends on the abundance of the species in the local atlas area and the degree of protection afforded to sites.

Local atlas organisers are best placed to understand the local issues regarding breeding species and sites, but if in doubt, a cautious approach should be adopted. The Rare Breeding Birds Panel (RBBP) is always willing to offer advice and to discuss particular examples: contact the RBBP Secretary in the first instance: secretary@rbbp.org.uk.

This document presents guidance on mapping of rare and sensitive species which are considered by the UK Rare Breeding Birds Panel.

Background

Members of the UK Rare Breeding Birds Panel met with BTO's atlas team in March 2011 and April 2012 to determine an agreed list of mapping resolutions which are informing the final maps in the forthcoming publication, *Bird Atlas 2007–11*.

These decisions were based on the sensitivities of the species and the sites concerned, and included an objective assessment of risk, balancing species and site sensitivities, and the likelihood that information was already in the public domain.

The final mapping resolutions have been derived on the basis of the records received and the circumstances surrounding them. For example, were it not for the widely publicised location of some recent colonists in conjunction with adequate protection measures, it might not have been possible to reveal these locations at high resolution. Therefore, these mapping resolutions cannot be automatically extended to future recording periods without review by RBBP (and IRBBP for Irish atlases).

As an additional step, members of RBBP have considered further guidance to assist mapping decisions to be taken by local atlas teams who are preparing tetrad-based atlases for their counties/ recording areas.

Particularly sensitive species

In the BTO/RBBP review, the initial presumption was for accurate presentation (mapping or listing) of breeding range at 10-km square resolution. All species on the RBBP list (generally those with UK populations of fewer than 2000 breeding pairs) were reviewed against this guidance and a number of exceptions were identified. These exceptions would be species where all or part of the range would be mapped at 20-km or 50-km resolution in *Bird Atlas 2007–11*. For the purposes of local,

tetrad atlases, if any of the species below (Group A) occur in the local atlas area, then the recommendation is that none should be mapped at any scale in local atlases.

Group A: in Bird Atlas 2007–11 these species will be mapped at a resolution greater than 10-km. Recommendation for local atlases: no map.

Cattle Egret, Red-necked Grebe, Slavonian Grebe, Honey-buzzard, White-tailed Eagle, Montagu's Harrier, Great Bustard, Common Crane, Purple Sandpiper, Green Sandpiper, Wood Sandpiper, Red-necked Phalarope, Red-backed Shrike.

A few other species will not be mapped at 10-km in *parts of their range*, owing to sensitivities in those areas, and for these species we recommend that local atlas organisers contact RBBP for further guidance:

Group B: in Bird Atlas 2007–11 these species will be mapped at 10-km resolution except for the noted areas.

Recommendation for local atlases – do not map below 10-km scale, but in those areas noted below, consult with RBBP.

Goldeneye (in England), Black-throated Diver (mainland Scotland), Great White Egret, Hen Harrier (England), Golden Eagle (southern Scotland), Stone-curlew (Sussex) and Dotterel (southern Scotland and England).

A number of species were not proved to breed during *the Bird Atlas 2007-11* period, but have bred in the past or have shown signs of breeding and so may do in the future. Although *Bird Atlas 2007-11* will map their distributions at 10-km scale, this decision may not apply to any other project which is considering breeding seasons after 2011, and care should therefore be taken over mapping the distributions of the following species:

Group C: in Bird Atlas 2007–11 none of these species were recorded breeding, and so they will be mapped at 10-km. However, they have bred on a number of occasions in the past and particular care should be taken over any mapping which may describe potential breeding populations.

Recommendation for local atlases –if evidence of a breeding attempt, consult with RBBP.

Kentish Plover, Temminck's Stint, Black Tern, Snowy Owl, European Bee-eater, Hoopoe, Shore Lark, Bluethroat and Lapland Bunting. Also, any other new breeding species recorded in potential breeding habitat!

Other rare species - mapping at 10-km or tetrad?

Principles

Whether a species can be mapped at a finer scale than 10-km is first and foremost a decision for the local atlas organisers. The RBBP requests, however, that due consideration is taken of all the species on the RBBP List (www.rbbp.org.uk/rbbp-species-list-full) to ensure that the conservation and welfare of the species and their breeding habitat is ensured.

Mapping at a tetrad scale can provide much more information about the local distribution of a species and can therefore be an important local conservation tool, highlighting key sites and habitats. Where possible, tetrad mapping is therefore to be encouraged. But in the case of many species on the RBBP List, a number of questions should be asked, including:

- (1) By mapping at tetrad level, are sites being revealed which are not generally known, where the mapping of which would increase the risk of damaging disturbance to the breeding birds, or compromise delicate arrangements with important stakeholders, such as landowners? If this is so, then the species should not be mapped at tetrad level.
- (2) Although a species is deemed sensitive, are the breeding locations well known locally already and do they have a suitable degree of protection so that a tetrad map would not increase the risks on the breeding birds? In this instance, tetrad mapping may be appropriate, at least for these well-known sites.
- (3) Is it possible that revealing the location of sites where the species was recorded during atlas fieldwork, but where breeding did not occur at that time, may draw attention to sites where breeding may occur in the future? Such locations might be best considered alongside those in point (1) above. This might also apply to wintering sites for a species which is not yet breeding in the atlas area, but where there is suitable breeding habitat at the site, and so it is possible breeding may occur there in the short to medium term.
- (4) What is the size of the local population, how extensive is the range in the local atlas area, and what are the population trends – is the species increasing locally, or is it declining and perhaps increasingly under threat from disturbance? This is where local knowledge can help guide the decision process.
- (5) Take care also with the mapping of the winter distribution of rare breeding birds. Some species, especially raptors, occupy territories throughout the year or from late winter onwards (e.g. displaying Goshawk in February), so accurate mapping of winter distributions could reveal nest sites even if there no breeding season map is given. Similar caution should be applied to winter roosts of species such as Hen Harrier and Long-eared Owl.

Alternatives exist for illustrating the presence of a rare species in the atlas area, such as giving the number of tetrads where the species was recorded (by breeding evidence category) or shading a more extensive part of the area where the species is publicly known to occur but where detailed site information is not in the public domain.

It is not generally feasible to display breeding ranges at resolutions greater than 10-km in local atlases, as the maps become meaningless in the local/county context or highlight sensitive areas anyway, owing to the location of grid square boundaries and county boundaries. In some cases though, it may be possible to downgrade the breeding evidence (useful if the species occurs quite widely but only breeds at a small number of sensitive sites), or remove selected dots.

Some atlases may choose to illustrate the abundance of rare species in their areas by mapping at, say 10-km, but using differing shading to show the number of tetrads occupied. The impact of this mapping should be considered locally (a species may in fact be more abundant than traditionally accepted) but decisions here are best taken locally.

Key Guidance

- Tetrad level mapping is appropriate for scarce species which are nevertheless widespread within a county or where there is no disturbance risk in the local atlas area.
- The 13 species in Group A (above) which will be mapped at greater than 10-km resolution in *Bird Atlas 2007–11* should not be mapped locally.
- Consideration should be given to the local circumstances applicable to species in Groups B & C (above).
- All non-native breeding species, or naturalised (“feral”) pairs of species which do not naturally breed in the wild in Britain, can be mapped at tetrad level.

A list of the more regularly breeding species (94) is available with specific guidance.

<i>NB. Confirmed breeding records of species in bold should never be displayed at <10-km</i>	Suggested local atlas resolutions	Comments. Any species for which tetrad is recommended can of course be mapped at 10-km or coarser if local atlases feel that is more appropriate. These comments apply to records of breeding evidence, not passage/migrant birds.
Whooper Swan	10	10-km in northern Scotland (where sites not publicised), but elsewhere tetrad probably OK
Pink-footed Goose	tetrad	
Eurasian Wigeon	tetrad	
Pintail	tetrad	
Garganey	tetrad	
Shoveler	tetrad	
Common Pochard	tetrad	
Ferruginous Duck	10	
Ring-necked Duck	10	
Greater Scaup	10	
Common Scoter	10	
Common Goldeneye	tetrad	Away from core breeding range, 10-km may be more appropriate
Capercaillie	10	
Common Quail	tetrad	
Red-throated Diver	10	Tetrad may be acceptable in some areas, where nests at high density
Black-throated Diver	10	
Macaronesian Shearwater	tetrad	Single Lundy record well known so tetrad OK
Eurasian Bittern	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Little Bittern	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Cattle Egret	No Map	
Little Egret	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Great White Egret	10	New sites need to be reviewed on case by case basis
Purple Heron	10	New sites need to be reviewed on case by case basis
Eurasian Spoonbill	10	
Red-necked Grebe	No Map	Summering sites occupied by single birds could be mapped at 10-km or tetrad, but new sites need to be reviewed on case by case basis

Slavonian Grebe	No Map	
Black-necked Grebe	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Honey-buzzard	No Map	
Red Kite	10	Tetrad may be acceptable in some areas, where nests at high density
White-tailed Eagle	No Map	
Marsh Harrier	10	In edge of range counties, no map recommended
Hen Harrier	10	In edge of range counties, no map recommended - all of England and south Scotland. Consideration should be given not to map the location of winter roosts
Montagu's Harrier	No Map	
Northern Goshawk	10	In edge of range counties, no map recommended
Golden Eagle	10	In edge of range counties, no map recommended - all of England and south Scotland
Osprey	10	In edge of range counties, no map recommended, unless sites known locally
Merlin	tetrad	Or 10-km away from main range, or where local politics dictate
Hobby	tetrad	Or 10-km away from main range, or where local politics dictate
Peregrine Falcon	10	Local decision - some areas might prefer no map, some might be comfortable with tetrad
Water Rail	tetrad	
Spotted Crake	10	Tetrad OK if sites known locally
Baillon's Crake	No Map	New breeder from 2012; owing to disturbance risk, no map is recommended
Corn Crake	10	Tetrad OK if sites known locally
Common Crane	No Map	
Great Bustard	No Map	
Black-winged Stilt	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Avocet	tetrad	
Stone-curlew	10	No map recommended where there is particular site sensitivity, such as in Sussex
Little Ringed Plover	tetrad	In some counties, especially in Scotland, no map or 10-km is preferable
Dotterel	10	In edge of range counties, no map recommended - all of England and south Scotland
Temminck's Stint	No Map	
Purple Sandpiper	No Map	
Ruff	10	Does not usually breed in most years; any new breeding site needs to be reviewed on case by case basis
Black-tailed Godwit	10	Tetrad OK if sites known locally; or no map away from main range
Whimbrel	10	Tetrad may be acceptable in some areas, where nests at high density
Green Sandpiper	No Map	
Greenshank	10	Tetrad may be acceptable in some areas, where nests at high density
Wood Sandpiper	No Map	
Red-necked Phalarope	No Map	
Arctic Skua	10	Tetrad may be acceptable in some areas, where nests at high density

Mediterranean Gull	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Ring-billed Gull	10	
Yellow-legged Gull	tetrad	
Little Gull	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Little Tern	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Roseate Tern	10	Tetrad OK for Coquet Island but other sites at 10-km
Long-eared Owl	tetrad	Most sites OK at tetrad but local decision should be based on disturbance risk. This caution also applies to winter roosts
Short-eared Owl	tetrad	Most sites OK at tetrad but local decision should be based on disturbance risk
Wryneck	10	Does not usually breed in most years; any new breeding site needs to be reviewed on case by case basis
Lesser Spotted Woodpecker	tetrad	Most sites OK at tetrad but local decision should be based on disturbance risk
Golden Oriole	10	Tetrad OK for the remaining main site at Lakenheath, but any other sites will be new and are best not mapped
Red-backed Shrike	No Map	
Red-billed Chough	10	
Firecrest	tetrad	Most sites OK at tetrad but consider edge of range pairs
Willow Tit	tetrad	Most sites OK at tetrad but consider edge of range pairs
Bearded Tit	tetrad	
Woodlark	tetrad	Most sites OK at tetrad but local decision should be based on disturbance risk
Cetti's Warbler	tetrad	
Dartford Warbler	tetrad	Most sites OK at tetrad but consider edge of range pairs
Savi's Warbler	10	Tetrad OK if sites known locally; new sites need to be reviewed on case by case basis
Icterine Warbler	10	Tetrad OK if sites used were one-offs; new sites need to be reviewed on case by case basis
Marsh Warbler	10	Tetrad OK if sites used were one-offs; new sites need to be reviewed on case by case basis
Fair Isle Wren	tetrad	
St. Kilda Wren	tetrad	
Fieldfare	tetrad	Tetrad OK if sites used were one-offs; new sites need to be reviewed on case by case basis
Redwing	10	Tetrad may be acceptable in some areas, where nests at high density
Black Redstart	tetrad	Most sites OK at tetrad but local decision should be based on disturbance risk
White Wagtail	tetrad	
Brambling	10	Tetrad OK if sites used were one-offs; new sites need to be reviewed on case by case basis
Common Redpoll	tetrad	
Parrot Crossbill	10	
Hawfinch	tetrad	
Snow Bunting	10	Tetrad may be acceptable in some areas, where nests at high density
Cirl Bunting	10	Tetrad may be acceptable in some areas, where nests at high density