

Appropriately defining IBA boundaries will lead to a stronger IBA Program and better protection for birds. Decision-makers need to be confident that boundaries reflect the areas regularly used by trigger species and that areas encompass key supporting habitats.

Fortunately, mapping tools and methods have advanced considerably in the past decade that will allow us to cooperatively re-digitize boundaries using free software and satellite imagery and topographic base layers for guidance. Regional knowledge of trigger populations and local environments is valuable and the primary reason we ask that regional partners/IBA coordinators help re-digitize boundaries.

If an organization/person wishes to obtain a shape file of Canada's IBAs, please direct them to Bird Studies Canada at iba@birdscanada.org. This file is subject to data sharing agreements. A KMZ of IBAs is free to download from the national IBA website <http://ibacanada.org/maps/regions/CanIBA.kmz>.

How to define an IBA

An IBA is defined and delineated so that, as far as possible, it:

1. is different in character, habitat or ornithological importance from surrounding areas;
2. exists as a Protected Area or other recognizable unit, with or without buffer zones, or is an area that can be managed in some way for conservation;
3. is an area that provides the requirements of the trigger species (i.e. those for which the site qualifies) while present, alone, or in combination with networks of other sites.

Other notes:

- a. IBA codes and names will be assigned by Bird Studies Canada, with consultation and advice from regional partners.
- b. IBA names should represent the area and use common or familiar terminology. Where IBAs overlap a designated Protected Area, the IBA name should be equivalent; where the IBA boundary extends beyond the Protected Area boundary, the IBA name could be "X and surrounding hills" for example.
- c. Note that (1.) may not apply in extensive areas of continuous, relatively uniform habitat and that this definition may not always be applicable to bottleneck sites for migratory birds. Where there are no obvious breaks in habitat, other features may be used to inform decisions, e.g., water catchment areas, ridges, hilltops, Protected Area boundaries, contour lines, bathymetric (seabed) features, roads, land ownership, etc. The habitat requirements of the trigger and key species at the IBA should be given the highest consideration when delimiting the site.

Wherever possible, agreement of IBA boundaries should be a consultative process, involving relevant parties, to try and ensure the most appropriate boundary is used and that it is politically supported and where conservation activities are practically achievable.

Common reasons why boundaries should be modified

- Original digitization issue(s) -- IBA has been misplaced, or is considerably too large/small, or extensively overlaps unsuitable areas where birds are not found.
- Discrepancy exists between the web-published boundary and the boundary within the IBA's Conservation Plan, i.e., where the boundary was derived following collaborative stakeholder consultations.
- Bird populations have changed/shifted and/or environmental conditions have changed and the area no longer supports trigger populations, e.g., because of recent anthropogenic developments or species' range shifts.
- Sites with shared boundaries that support similar species and environmental characteristics should be amalgamated where possible, particularly where the new site could result in improved conservation and management.
- Many sites home to breeding seabirds/waterbirds should be re-digitized in accordance with available guidance (see Appendix 1 below); radii should be measured from the centre of colonies.

Delineation Principles

“In many cases, deciding where to put the IBA boundary is straightforward, often dictated by obvious habitat boundaries or guided by existing Protected Area boundaries, land ownership, or management boundaries etc. In others, establishing where the edges should be located requires consultation, field work and/or data analysis. As each site, and its local context, is unique, there are no fixed rules that can be applied, only guidelines: what is biologically sensible has to be balanced against practical considerations of how best the site may be conserved. Common sense needs to be used in all cases: what is most likely to be effective in conserving the site under prevailing conditions and circumstances, locally and nationally?”

Candidate IBAs for individual species need to be assessed for areas of overlap and, where appropriate, combined. In other words, where areas do overlap, or fall close together, decisions will need to be made as to whether the site would be better treated as one larger IBA, or as several smaller ones.” (*BirdLife International: Marine IBA Toolkit 2010*)

- Trigger species should regularly use the area in significant numbers and the area must support the essential resources required by the birds at the time(s) they are present.
- Contiguous or functionally connected areas beyond where birds are regularly found in ‘significant’ numbers may also be included provided, for example, birds historically used these areas, the areas are legally protected as a Migratory Bird Sanctuary, environmental conditions are highly favorable for a species at risk, but the area is targeted for future resource extraction or legal protection.
- Buffers should be consistent (size and rationale). Marine buffers should be consistent with guidance found in BirdLife International's Marine IBA Tool Kit and Appendix 1 below. For terrestrial sites, buffers should be large enough to allow for typical yearly variability in nesting, foraging, or other use patterns.
- Sites should be amenable to conservation and should not generally exceed 3000 km², although there are exceptions (some Canadian IBAs are larger).
- IBAs are normally represented by one polygon. However, where disjunct habitat patches are important for the trigger species (e.g., a nearby island, a small bay, important patch of grassland) or where they contribute to a metapopulation for the species, it is possible to define an IBA with multiple parts.

- Mapping the precise locations of trigger species and can be useful (and sometimes essential) to define or modify IBA boundaries. or is often To help rationalize site boundaries, identifying the coordinates and mapping the location of where monitoring studies/observations provide evidence that bird populations exceed threshold criteria is encouraged.
- Refer to “Guiding Principles for Nominating and Designating Important Bird Areas” for further information.

How to Re-digitize IBA Boundaries

- Use ArcMap, ArcGIS Explorer, or Google Earth to generate a new polygon and save the file as KMZ, KML, or shapefile. Contact iba@birdscanada.org for instructions to download and use these tools.
- The above “Delineation Principles” should be followed. For example, base layers showing underlying topographic features should be added before boundaries are re-digitized to ensure environmental conditions are suitable for trigger populations.
- IBA Coordinators should submit the updated boundary as a KMZ, KML, or shape file to BSC. BSC will review the boundary and update the Canada master shape and KMZ files and site and regional maps accordingly.

Limitations

The IBA Program makes provision for periodic review of IBAs, as landscapes change and bird populations shift, increase, or decline. New sites may be added and existing IBAs may increase or decrease in size or be eliminated altogether. IBA boundaries, therefore, are dynamic and may change over time. BSC provides spatial data on IBA boundaries “as is” and makes no warranty as to their future accuracy nor to their fitness or suitability for any particular purpose. Responsibility for the appropriate use of IBA boundary data rests solely with the users of those data and IBA partners are responsible for ensuring boundaries are as appropriate as practically possible.

*Updated June 2017
Bird Studies Canada*

Appendix 1: Guidance to Extend IBA Boundaries for Colonial Nesting Seabirds/Waterbirds

Table 1: Appropriate radii from breeding islands/sites for seabirds/waterbirds (Environment Canada – Canadian Wildlife Service Occasional Paper 109, *Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories*; Mallory and Fontaine, 2004).

Radius 15 km	Rationale	Radius 30 km	Rationale
Northern Fulmar	To minimize colony disturbance; reduce risk of pollution; foraging normally occurs well away from breeding colony	Thick-billed Murre	Based on foraging distance
Black Guillemot	Based on foraging distance; to minimize colony disturbance; reduce risk of pollution	Black-legged Kittiwake	Based on foraging distance
Common Eider	Based on foraging distance; minimize colony disturbance		

Table 2: Appropriate radii from breeding islands/sites for seabirds/waterbirds (*Conserving our seabirds: how to identify Important Bird Areas in the marine environment [marine IBAs]* Vilanova i la Geltrú, Spain, 13-16 November 2005).

Radius 5 km	Radius 15 km	Radius 40 km	Still Unknown
Arctic Skua	Manx Shearwater (rafts)	Great Skua	Leach's Storm-petrel
Little Tern	Great Cormorant	Herring Gull	Band-rumped Storm-Petrel
Black Guillemot	Common Shag	Lesser Black-backed Gull	White-faced Petrel
Slender-billed Gull	Mew Gull	Great Black-backed Gull	European Storm-petrel
Gull-billed Tern	Arctic Tern	Black-legged Kittiwake	Northern Fulmar
	Common Tern	Common Murre	Northern Gannet
	Sandwich Tern	Razor Bill	
	Roseate Tern	Atlantic Puffin	
	Cory's Shearwater (rafts)	Audouin's Gull	
	Balaeric Shearwater (rafts)		
	Black-headed gull		
	Mediterranean Gull		

Table 3: Marine boundaries around seabird breeding colonies for three categories of feeding ranges of species breeding in the British Isles (RSPB 2000).

Radius 5 km	Radius 15 km	Radius 40 km
Arctic Skua	Manx Shearwater (rafts)	Great Skua
Little Tern	Great Cormorant	Herring Gull
Black Guillemot	Common Shag	Lesser Black-backed Gull
	Mew Gull	Great Black-backed Gull
	Arctic Tern	Black-legged Kittiwake
	Common Tern	Common Murre
	Sandwich Tern	Razor Bill
	Roseate Tern	Atlantic Puffin