

# Canadian Important Bird Area Criteria

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The BirdLife International partnership is working to identify and document those sites that are vital to the long term conservation of the world's birds. These sites are called Important Bird Areas (IBAs). In Canada, the IBA program was initiated in 1996, in conjunction with the launch of parallel programs in the United States and Mexico. The Canadian partner in BirdLife International is Bird Studies Canada (BSC) and the Canadian Nature Federation (CNF).

The goal of the IBA program is the identify and conserve a worldwide network of sites necessary to ensure the long-term viability of naturally occurring bird populations. Conservation work in selected sites is undertaken by CNF <[www.cnf.ca](http://www.cnf.ca)> in conjunction with their provincial affiliates. Sites were identified by Bird Studies Canada with the aid of a Technical Steering Committee, using a set of criteria that are consistent with other IBA programs throughout the world, while at the same time being applicable to the Canadian context. This document details the criteria that were used between 1997 and 2001 by BSC to identify IBAs in Canada.

The IBAs identified as of April 2001 are the end product of four years' work. Over those four years 1,246 potential sites were considered for IBA status. Of these, 597 have been accepted as IBAs by the Technical Steering Committee. As with other IBA programs around the world, the criteria are organized into four categories: 1) Threatened Species, 2) Restricted Range Species, 3) Biome-restricted/representative Species and 4) Congregatory Species. Each IBA is also identified as being either globally, continentally or nationally significant. If an IBA site falls under one or more of the four categories, the highest level of significance determines the overall significance. For instance if a site was identified at the global level for a congregatory species and at the national level for a threatened species the site would be identified as globally significant.

## Category 1: Threatened Species

The general objective of this category is to identify sites that regularly hold significant numbers of a species that has been identified as threatened or at risk of extinction. The criteria for global and national levels of significance are as follows:

### **Global - A1**

*The site regularly holds significant numbers of a globally threatened bird species.*

### **National - C1**

*The site regularly holds significant numbers of a bird species, subspecies or biogeographical species which is considered threatened in Canada.*

In general, a 'significant number' was considered to be 1% or more of the relevant population, although in a few cases less than this was accepted. Regular occurrence at a site was generally defined as the yearly presence of a species, if known. If information on the species abundance was known for several years the data from the most recent five years was used in many but not all cases.

Species were considered globally threatened if they were listed as Critical, Endangered and Vulnerable in Threatened Birds of the World (BirdLife International 2000). Prior to the publication of this document, its predecessor, Birds To Watch 2 was used (Collar *et al.* 1994). Although these documents also identify some species as Near-threatened, this level was not used by the Canadian IBA program.

Species were considered nationally threatened if they were designated as Endangered, Threatened or Vulnerable by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the body that ranks and assigns status to at risk species in Canada ([www.cosewic.gc.ca](http://www.cosewic.gc.ca)). Scientists from Environment Canada and non-governmental organizations together form COSEWIC. At the end of the year 2000 the name of the lowest at-risk status, Vulnerable was changed to Special Concern.

Unlike at the global and national levels there is no organizational body that identifies threatened species at the North American level, thus a continental level was not used in this category. Together, national and global rankings probably include all the bird species that should be covered.

Species identified as globally or nationally at-risk are highlighted in purple and blue in the <IBA Threshold Table>, where population estimates were available. The number that is 1% of a species population is called the threshold, since if a species was present at the threshold level or greater then the site can be identified as an IBA. Throughout the IBA site summaries, the terms ‘globally endangered’, ‘nationally vulnerable’ etc. refer to the status levels assigned by the above bodies.

There are 168 IBAs identified under the threatened species category.

## **Category 2: Restricted-range Species**

Species that have a very limited distribution are vulnerable to habitat loss or natural disturbances. Some endemic species are abundant within their range and are not considered threatened; nonetheless it is important to include the best or representative sites for these species within the IBA network. Subspecies or disjunct populations restricted to small areas are also of concern. The criteria for global, continental and national levels of significance under this category are as follows:

### **Global - A2**

*The site regularly holds significant numbers of a bird species whose global breeding range is less than 50,000 km<sup>2</sup>.*

### **National - C2**

*The site contains species with small total breeding ranges (ie greater than 100,000 km<sup>2</sup> but less than 250,000km<sup>2</sup>) and important populations within North America (ie more than 50% of the North American distribution). At the national level, distinctive subspecies with breeding ranges of less than 50,000 km<sup>2</sup> are also included.*

Most bird species occurring in Canada have large breeding ranges and thus this criterion had limited application in this country - this category is more relevant to parts of the tropics and island countries. However, species that do meet these criteria are Whooping Crane at the global level, and Iceland Gull, Ivory Gull, Ross’ Goose, Common Ringed Plover and 14 subspecies at the national level. The 14 subspecies are: Northern Goshawk subspecies *laingi*, Peregrine Falcon ssp. *pealei*, Blue Grouse ssp. *sitkensis*, Northern Saw-whet Owl ssp. *brooksi*, Hairy Woodpecker ssp. *picoides*, and Steller’s Jay

ssp. *carlottae* all found on the Queen Charlotte Islands, B.C., Rock Ptarmigan ssp. *welchi*, Ovenbird ssp. *furvoir*, Red Crossbill ssp. *pusilla* all found in Newfoundland, Rock Ptarmigan ssp. *captus* (northern Ellesmere Island), White-tailed Ptarmigan ssp. *saxitalis* (Vancouver Island), Ipswich Savannah Sparrow ssp. *princeps* (Sable Island, Nova Scotia), and Common Redpoll ssp. *rostrata* (Baffin Island).

No species met the criteria at the continental level (those with breeding ranges greater than 50,000 km<sup>2</sup> but less than 100,000 km<sup>2</sup>, and with > 50% of population within North America). Coastal breeding species which have linear breeding distributions were excluded from the analysis because they are mostly covered under the congregatory species category.

For those species listed above that were not already considered congregatory species, the 1% threshold was not used because these species or subspecies were mostly without population estimates. Instead, a target of at least one site in Canada for each restricted-range population was used. Where a choice of sites was possible the best available, often in already protected areas, was chosen.

There are 16 IBAs identified under the restricted-range category.

### **Category 3: Biome-restricted/representative Species Assemblages**

The objective of this category is to identify sites that have assemblages of birds whose breeding ranges are largely restricted to, or representative of the various North American biomes. Although significant amounts of effort went into analyzing information for the purposes of identifying sites under this category, no biome-restricted/representative sites (hereafter called biome) have been identified to date. The identification of biome sites was placed on hold to coordinate with the North American Bird Conservation Initiative (NABCI) and Partners in Flight (PIF) efforts.

For the purposes of this category, the Bird Conservation Regions (BCRs) as defined in November 1999 by the NABCI mapping subcommittee, are being used to reflect biomes. Associated with each BCR will be a list of priority bird species. These would be the species which the IBA program would use to identify category 3 sites. As of spring 2001, committees have been struck for some BCRs across the country and priority species lists been developed in only one or two BCRs. These committee are composed of a mix of individuals from non-governmental organizations, governments and other interested parties.

### **Category 4**

The congregatory species category covers sites that are important because they hold large concentrations of birds during one or more seasons, either breeding, wintering or migratory season. Marine, lacustrine, terrestrial, and sites over which raptors concentrate are included. Sites can qualify for a single species or under the general congregatory thresholds, at the global, continental or national levels as follows:

**Single Species Congregations** - *The site is known or thought to hold on average of 1% or more of the biogeographical population of a species.*

### **Global - A4**

*The site is known or thought to hold 1% or more of the global or North American population of a*

species.

**Continental - B4**

*The site is known or thought to hold 1% or more of a continental biogeographical population of a species; that is, 1% or more of the population of a flyway or a subspecies or a recognized separate regional population.*

**National - C4**

*The site is known or thought to hold 1% or more of the Canadian population of a species, or 1% or more of the Canadian population of a flyway or otherwise separate population.*

**B) General Thresholds for Congregatory Species** - *The following come into use if there are several different species present in large numbers or if the population thresholds are unknown.*

Category	Global	Continental	National
	Minimum numbers of birds present		
<p><b>Congregations of Waterfowl - 4i</b>  <i>The site is regularly an important concentration site for waterfowl during any portion of the year. Concentrations refer to those present over a short period of time rather than over an entire season.</i></p>	20,000	15,000	10,000
<p><b>Congregations of Seabirds or Colonial Waterbirds - 4ii</b>  <i>The site is regularly an important concentration site for seabirds or colonial waterbirds during any portion of the year. Concentrations refer to those present over a short period of time rather than over an entire season.</i></p>	20,000	15,000	10,000
<p><b>Congregations of Shorebirds - 4iii</b>  <i>The site is regularly an important migratory stopover or wintering site for shorebirds. Concentrations refer to those present over a short period of time rather than over an entire season.</i></p>	20,000	15,000	10,000
<p><b>Congregations of Raptors - 4iv</b>  <i>The site is a regular migratory bottleneck for raptors. concentrations refer to seasonal totals rather than those occurring over a brief period of time.</i></p>	20,000	15,000	10,000
<p><b>Congregations of Wading Birds - 4v</b>  <i>The site is an important concentrations site for wading birds (herons, egrets, cranes etc.) during any portion of the year. Concentrations refer to those present over a short period of time rather than over an entire season.</i></p>	10,000	5,000	500

<p><b>Congregations of Migratory Landbirds - 4vi</b>  <i>The site is a regular migratory stopover site for migratory landbirds (other than raptors). Sites nominated should contain exceptional numbers and or diversity of migratory landbirds. Concentrations refer to seasonal totals. No absolute thresholds have been set, owing to the scarcity of quantitative data. Other evidence (# of species, landscape configuration) will be partly used to identify these sites.</i></p>	<p>Large concentrations</p>	<p>NA</p>	<p>NA</p>
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Congregatory species are defined according to Wetlands International (Rose and Scott 1997), as recommended by BirdLife International (1997). Included are species such as shearwaters, storm-petrels, gannets, auks, and pelicans. Terrestrial species that congregate during a portion of their life-cycle (eg. hawks) are also included in this category.

Biogeographical populations at the continental level were considered important because even though some of these species are widespread in their distribution, their populations rarely exchange members. There are two reasons for treating biogeographical populations separately. First, populations with little emigration and immigration are likely to have genetic differences and thus should be conserved from the standpoint of overall avian biodiversity. Second, populations in different areas often face different pressures on their habitats and different alternatives for their conservation and management. The latter also applies for national level populations.

There is no fundamental biological reason why 1% should be used as a threshold. However, around the world other countries and programs have applied the 1% threshold and found it to afford an appropriate degree of protection through the identification of ecologically sensible sites. In addition, the 1% measure is proportional and is self-adjusting to rarity (i.e. species with small population sizes need fewer individuals to qualify).

An internal document was created that described in detail the sources of the population estimates for this category (and for the threatened species category). Some of the more important sources for congregatory species were: Rose and Scott (1997), del Hoyo *et al.* (1992, 1994, 1996), Canadian Wildlife Service Bird Trends, and the Birds of North America series. Where differing estimates existed, either the lowest or an average estimate was used whichever seemed appropriate for the species; this depended on the disparity between estimates, the date of the estimate and the quality of the source. In a small number of cases .75% or .50% of the global population was used as a threshold where no North American or national populations were known. The resultant thresholds can be viewed in the <IBA Threshold Table>.

There are 518 IBAs identified under the congregatory species category.

**Notes**

\* In the tables of bird data within each site summary there are species highlighted which meet either national, continental or global criteria. A species has been automatically highlighted when the maximum number of a species recorded in the database meets the threshold. This is somewhat different than what was actually used in assessing sites, where an average was generally used, and it was furthermore possible to individually assess the sites. In isolated cases the level assigned (by the Technical Steering Committee) differs from the level of significance identified by the algorithm that generates the summary bird table. In most cases the committee’s assessment is more conservative than what is being generated

automatically. Additional programming modifications in future versions of the online directory will fix this discrepancy.

\* Data that has been provided through personal communications or personal observations is not yet available online. Eventually this information will also be available.

\* Determining thresholds for the shorebird species was more difficult than some other groups because the population estimates for these species (aside from species-at-risk) were, and still are, imprecise. Near the end of the IBA identification period, a new Canadian Wildlife Service publication appeared (Morrison *et al.* 2001) that gave significantly higher population estimates than those sources which we had been using (such as those noted in the category 4 section). Some sites have been revised accordingly, but others, especially those identified earlier in the process have not been up-dated.

\* A couple of species have different breeding season versus non-breeding season thresholds. The most frequently used threshold is shown in the table.

\* The official names (as designated by the American Ornithologists' Union) of a few bird species have changed over the last year. For example, Oldsquaw is now Long-tailed Duck and Sage Grouse is Greater Sage-Grouse. Most of these recent name changes do not appear in the text of the site summaries, although they do appear in the tables of bird data.

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