

Marine Birds - Pelagic Cormorant

description

This atlas page illustrates the best available data that identifies Pelagic Cormorant habitat, in which sightings were surveyed year-round. The Pelagic Cormorant (*Phalacrocorax pelagicus*) is one of the smallest cormorants, and has a slender neck and beak. Both males and females are solid black, except during the breeding season when adults have white flank patches that show in flight. Pelagic Cormorants nest in colonies, which are smaller than those of other cormorants. Colonies are found on small, offshore islands, narrow cliff ledges, steep slopes and other relatively inaccessible locations that are adjacent to deep water. The nests may be reused year after year.

Source data used to develop this map consisted of a range of shoreline-based, ground, boat and aerial surveys, which were focused on identifying, counting and recording marine birds. The majority of the surveys were collected at sites with defined boundaries and areas. Surveys collected along transects from each dataset were buffered depending upon observation width described within the source survey methodology in order to generate a survey area.

Observations of the listed species were totalled for each survey location and divided by the area surveyed to generate a density value for each survey location. The densities of all of the survey locations within a single planning unit were averaged and adjusted for survey effort to calculate the illustrated metric, average density of Pelagic Cormorant observations by planning unit. The values were then classified and symbolized using 5 quantiles, meaning that each class consisted of 20% of the non-zero planning units. (A quantile is established by dividing the frequency distribution of a variable into equal groups: that is, each quantile contains the same fraction of the total number of values being measured.)

All of the planning units that were surveyed, regardless of whether Pelagic Cormorant was sighted, were displayed underneath the density layer to illustrate the extent of the planning units that were surveyed.

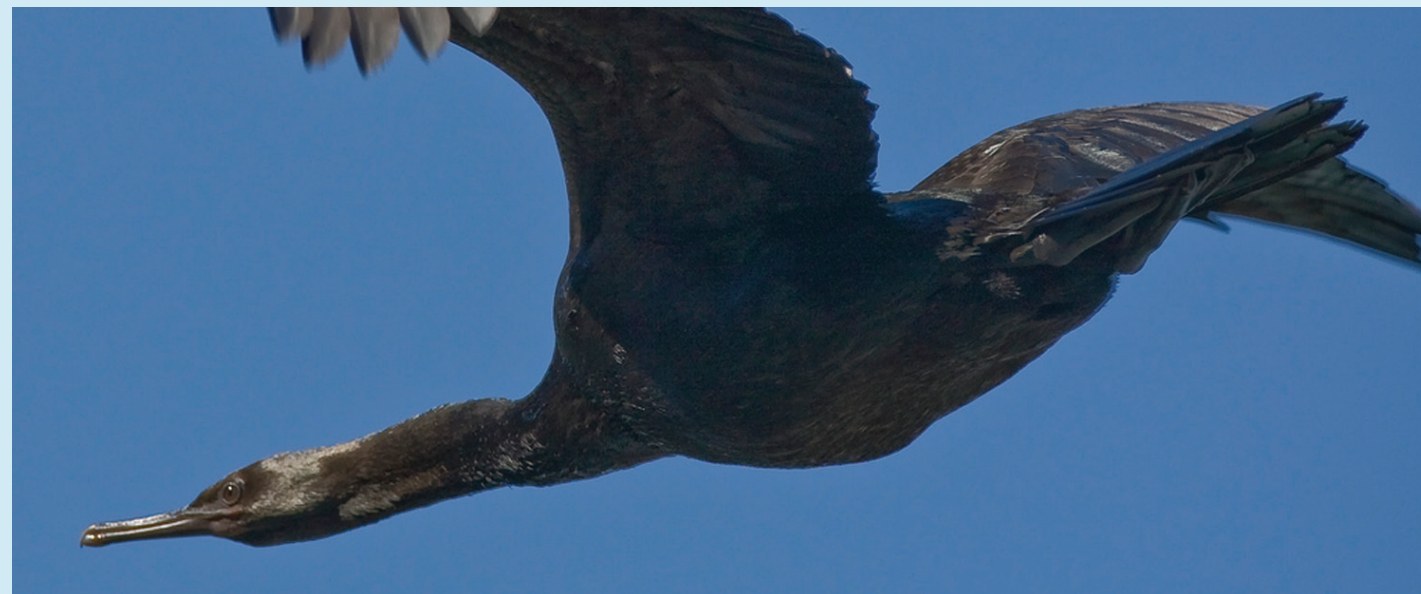


PHOTO:MIKE BAIRD

data sources

- Environment Canada (Canadian Wildlife Service) - BC Ferry Surveys
- Environment Canada (Canadian Wildlife Service) – Burrard Inlet Environmental Action Plan: Winter Bird Surveys
- Environment Canada (Canadian Wildlife Service) – Coastal Waterbird Inventory
- Environment Canada (Canadian Wildlife Service) - Pelagic Seabird Surveys
- Environment Canada (Canadian Wildlife Service) – West Coast Vancouver Island Waterbird Survey
- Bird Studies Canada - BC Coastal Waterbird Survey
- Alan Burger - Southwest Vancouver Island Shelf Surveys
- Capital Regional District – Harbours Atlas
- Laskeek Bay Conservation Society - Laskeek Bay Surveys

data resolution

- Weighted averages were calculated for each 2 kilometre x 2 kilometre planning unit.

data collected

- 1971-2008

date compiled

- 2010

reviewers

- Peter Davidson, Bird Studies Canada
- James Kenyon, Ducks Unlimited Canada
- Representatives from Environment Canada, Canadian Wildlife Service

reviewer comments

- None provided.

caveats of use

- Survey effort is not consistent across all planning units, across all areas of the coast or across all seasons. Areas with no data may not have been surveyed and these data gaps are not necessarily indicative of an absence of Pelagic Cormorant.
- The density values in an area can change over time in response to natural population fluctuations and changes in habitat conditions (natural or anthropogenic).
- The precision of the average density values displayed in the legend is not indicative of the original precision of the survey counts.
- This feature is a compilation of data collected by many people, for different purposes, using different survey techniques with different methodologies within each technique and, therefore, considerable care must be taken when using the data.
- Surveys performed in different seasons will produce different results.
- It is important to note that *in some cases* Coastal Waterbird Inventory surveys recorded only a subset of species present, but BCMCA did not use this information due to sheer volume and complexity of data. As a result, some areas depicted as zero density on this map may actually be 'no data' areas rather than true 'absence' data.
- Recommended date of expiry for use of these data in a marine planning context: None provided.

map, feature data and metadata access

- Visit www.bcmca.ca/data for more information.

references

Species description contains material from:

- B.C. Conservation Data Centre. *Species Summary: Phalacrocorax pelagicus*. BC Ministry of Environment (MoE) 2010. 21 Sep. 2010 <http://a100.gov.bc.ca/pub/eswp/>

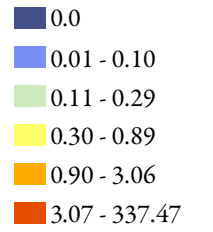
BCMCA Atlas

Marine Birds

Pelagic Cormorant

Legend

Birds per square kilometre standardized by effort



Note:
- Classification based on 5 quantiles.

Data Sources:

Environment Canada
(Canadian Wildlife Service),
Bird Studies Canada,
Alan Burger,
Capital Regional District,
Laskeek Bay Conservation Society

Base Data:

ESRI Base Data, GeoBase, GeoBC,
NOAA, Natural Resources Canada,
USGS, Washington State Government

Thematic Data:

For more information on data sources
and methods please refer to the
facing page to this map

Projection: BC Albers NAD83

0 25 50 75 100 125 150

Kilometres

0 25 50 75

Nautical Miles

1:4,250,000 *

* Written scales are approximate and
are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.

August 27, 2010

