Marine Birds – Feature Count

description

One of the goals of BC Marine Conservation Analysis (BCMCA) is to collaboratively identify areas of high conservation value and areas important to human use in Canada's Pacific Ocean. The BCMCA project has been designed to make these products available for use in marine planning. In order to identify areas of high conservation value, the BCMCA ran Marxan analyses using a wide range of ecological data, recommended by subject matter experts, as conservation features. These and other data are illustrated in the BCMCA Atlas.

Marine birds are birds that use the marine environment for part of their life cycle. They are an important component of the BCMCA as they are commonly used by researchers as indicators for both the health and condition of the marine environment. Marine birds are often considered focal species whose presence indicates the occurrence of other species and can characterize a particular habitat or community.

This map was generated by overlaying all of the marine bird features that the BCMCA collated to go into the Marxan analysis. The map illustrates the number of different bird features that inform each 2 kilometre by 2 kilometre planning unit. There were a total of 72 different bird features used in the Marxan analysis and, as the facing map shows, up to 42 of them overlapped in some of the planning units. Feature count values were classified for illustration using quantiles. (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.)

Seventy-two marine bird features were included in this tally:

- American Wigeon Winter Surveys
- At-sea Density of Listed Marine Birds
- Bald eagle Winter Surveys
- Blue-winged Teal Winter Surveys
- Brandt's Cormorant Colonies
- Brant Winter Surveys
- Canada Goose
- Common Goldeneye Winter Surveys
- Common Murre Colonies
- Double-crested Cormorant Colonies
- Gadwall Winter Surveys
- Great Blue Heron Nests and Foraging Areas
- Green-winged Teal Winter Surveys
- Harlequin Duck Winter Surveys
- Horned Grebe
- Mallard Winter Surveys
- Northern Pintail Winter Surveys
- Pelagic Cormorant
- Pigeon Guillemot Colonies
- Red-necked Grebe
- Rocky Staging Areas
- Scoter Winter Surveys
- Thayer's Gull Winter Surveys
- Tufted Puffin Colonies
- Ancient Murrelet Colonies
- At-sea Density of Marbled Murrelet
- Barrow's Goldeneye Winter Surveys
- Bonaparte's Gull Autumn Surveys
- Brandt's Cormorant Winter Surveys
- Bufflehead
- Cassin's Auklet Foraging Density
- Common Loon Winter Surveys
- Common Murre Winter Surveys
- Eurasian Wigeon Winter Surveys
- Glaucous-winged Gull Colonies
- Great Blue Heron Winter Surveys
- Harlequin Duck Moulting Season Surveys
- Herring Gull Winter Surveys
- Horned Puffin Colonies
- Marbled Murrelet Winter Surveys
- Northern Shoveler Winter Surveys
- Pelagic Cormorant Colonies
- Red breasted merganser
- Rhinoceros Auklet Colonies
- Sandhill Crane
- Semi-palmated Plover Nests
- Thick-billed Murre Colonies
- Tundra Swan Winter Surveys
- Ancient Murrelet Winter Surveys
- At-sea Density of Marine Birds
- Black Oystercatcher Colonies
- Bonaparte's Gull Spring Surveys
- Brant Spring Staging Surveys
- California gull Winter Surveys
- Cassin's Auklet Colonies
- Common Merganser
- Double Crested Cormorant Winter Surveys
- Flat Staging Areas
- Glaucous-winged gull Winter Surveys
- Greater and Lesser Scaup Winter Surveys
- Harlequin Duck Spring Surveys
- Hooded Merganser
- Long-tailed Duck Winter Surveys
- Mew Gull Winter Surveys
- Pacific Loon Winter Surveys
- Peregrine Falcon Nesting

(Note: There is no atlas page for Peregrine falcon, due to their endangered status)

- Red throated Loon Winter Surveys
- Rhinoceros Auklet Foraging Density
- Scoter Pre-migration Staging Surveys
- Storm Petrel Colonies
- Trumpeter Swan Winter Surveys
- Western Grebe

data sources

- Alan Burger
- Bernard Schroeder
- Bird Studies Canada
- British Columbia Breeding Bird Atlas
- British Columbia Conservation Data Centre
- Capital Regional District
- Environment Canada (Canadian Wildlife Service)
- Laskeek Bay Conservation Society
- Parks Canada
- Raincoast Conservation Foundation

(Note: Please see individual feature atlas pages and/or metadata for feature specific data sources.)

data resolution

- Features were tallied by their presence in 2 kilometre by 2 kilometre planning units.

date compiled

- 2010

reviewers

- Not reviewed.

reviewer comments

- None provided.

caveats of use

- Survey effort is not consistent across all planning units or across all areas of the coast. Areas with no data may not have been surveyed and these data gaps are not necessarily indicative of an absence of marine birds.
- This map is a compilation of data collected by many people, for different purposes, using different survey techniques with different methodologies within each technique and, therefore, it should not be used beyond the purpose it was created for which is to illustrate the distribution of marine bird features that the BCMCA collated to go into the Marxan analysis.
- Please see individual feature atlas pages and metadata for feature or species specific caveats.
- 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.

BCMCA Atlas

Marine Birds

Feature Count

Legend

Feature count
(by planning unit)

- 1
- 2
- 3 - 4
- 5 - 6
- 7 - 11
- 12 - 42

Note:
- Classification based on 6 quantiles.

Data Sources:
Alan Burger,
Bernard Schroeder,
Bird Studies Canada,
British Columbia Breeding Bird Atlas,
British Columbia Conservation Data Centre,
Capital Regional District,
Environment Canada
(Canadian Wildlife Service),
Laskeek Bay Conservation Society,
Parks Canada,
Raincoast Conservation Foundation

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:

BC Marine Conservation Analysis

Map template by Caslys Consulting Ltd.

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Inset Map 1:500,000*

Note: The inset has been provided to illustrate the level of detail available in the data. The inset is for illustrative purposes only and does not imply any significance to this region.