**Seabird Survey Report**

**29 March – 17 April 2025**

**Canadian Wildlife Service, Environment and Climate Change Canada**

**Carina Gjerdrum** [**carina.gjerdrum@ec.gc.ca**](mailto:carina.gjerdrum@ec.gc.ca)

**Observer: Jacob Comeau-Oullette**

**Background**

The east coast of Canada supports millions of breeding marine birds as well as migrants from the south­ern hemisphere and the eastern North Atlantic. In 2005, the Canadian Wildlife Service (CWS) of Environment Canada initiated the Eastern Canada Seabirds at Sea (ECSAS) program with the goal of identifying and minimizing the impacts of human activities on birds in the marine environment. Since that time, a scientifically rigorous protocol for collecting data at sea and a sophisticated geodatabase have been developed, relationships with various industries and DFO to support offshore seabird observers have been established, and over 300,000 km of ocean track have been surveyed by CWS-trained observers. These data are now being used to quantify seabird abundance and distribution at sea and identify and mitigate any threats. In addition, data are collected on marine mammals, sea turtles, sharks, and other marine organisms when they are encountered.

**Methods**

Seabird surveys were conducted from the port side of the bridge of the Endeavor during the Scotian Shelf AZMP from 29 March to 17 April 2025. Surveys were conducted while the ship was moving at speeds greater than 4 knots, looking forward and scanning a 90° arc to one side of the ship. All birds observed on the water within a 300 m-wide transect were recorded, and we used the snapshot approach for flying birds (intermittent sampling based on the speed of the ship) to avoid overestimating abundance of birds flying in and out of transect. Distance sampling methods were incorporated to address the variation in bird detectability. Marine mammal and other marine wildlife observations were also recorded, although surveys were not specifically designed to detect marine mammals. Details of the methods used can be found in the CWS standardized protocol for pelagic seabird surveys from moving platforms (Gjerdrum et al. 2012).

**Results**

We surveyed 1636.3 km of ocean over 20 days. A total of 2469 marine birds were observed in transect (2786 in total) from 9 families (Table 1). Bird densities averaged 5.3 birds/km2 (ranging from 0 – 449.3 birds/km2). The highest densities of birds (> 150 birds/km2) were observed at the shelf break on the Halifax Line, northeast of the Gully MPA, and the northwestern corner of Misaine Bank (Figure 1).

Sightings from the family Alcidae were the most abundant (53% of the observations), most of which were Dovekie and Murre. Neither of these species breed in the area but do spend a significant amount of time here during the non-breeding season. Laridae were also common (34% of the observations), with Black-legged Kittiwake, Herring and Great Black-backed Gulls (Table 1) observed throughout the survey area. An additional 12 terrestrial birds were observed offshore, either migrating overseas or blown off course (Table 2). Just 26 marine mammals were observed during the surveys (Table 3).

***Gully and St. Ann’s Bank MPA***

Surveys took place in the Gully MPA on 12 and 14 April (Figure 1) where a total of 44 marine birds were observed (Table 4). Surveys in St. Ann’s Bank MPA took place on 7-8 April where 172 marine birds were sighting (Table 5). No marine mammals were observed in either of the MPAs.

A map of the seabird survey effort

AI-generated content may be incorrect.

Figure 1. Density of birds (all species combined) observed during surveys on the Scotian Shelf AZMP from 29 March to 17 April 2025.

Table 1.List of marine bird species observed during surveys on the Scotian Shelf AZMP from 29 March to 17 April 2025.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Family** | **Common Name** | **Latin** | **Total Num.** | **Num. observed in transect** |
| **Marine birds** | |  |  |  |  |
|  | Gaviidae | Red-throated Loon | *Gavia stellata* | 1 | 0 |
|  | Procellariidae | Northern Fulmar | *Fulmarus glacialis* | 53 | 53 |
|  |  | Sooty Shearwater | *Ardenna grisea* | 24 | 23 |
|  |  | Unidentified Shearwaters | *Puffinus* or *Calonectris* or *Ardenna* | 1 | 0 |
|  | Hydrobatidae | Leach's Storm-Petrel | *Hydrobates leucorhous* | 20 | 17 |
|  |  | Wilson's Storm Petrel | *Oceanites oceanicus* | 2 | 2 |
|  |  | Unidentified Storm-Petrels | *Hydrobatidae* | 2 | 2 |
|  | Phalacrocoracidae | Double-crested Cormorant | *Phalacrocorax auritus* | 9 | 9 |
|  |  | Unidentified Cormorants | *Phalacrocorax* | 1 | 1 |
|  | Sulidae | Northern Gannet | *Morus bassanus* | 200 | 196 |
|  | Anatidae | Common Eider | *Somateria mollissima* | 27 | 25 |
|  |  | Black Scoter | *Melanitta nigra* | 1 | 1 |
|  | Scolopacidae | Unidentified Phalaropes | *Phalaropus* | 2 | 2 |
|  | Laridae | Unidentified Skuas | *Stercorarius Skuas* | 20 | 20 |
|  |  | Black-legged Kittiwake | *Rissa tridactyla* | 145 | 145 |
|  |  | Herring Gull | *Larus argentatus* | 115 | 107 |
|  |  | Great Black-backed Gull | *Larus marinus* | 107 | 106 |
|  |  | Ring-billed Gull | *Larus delawarensis* | 85 | 83 |
|  |  | Iceland Gull | *Larus glaucoides* | 5 | 5 |
|  |  | Glaucous Gull | *Larus hyperboreus* | 3 | 3 |
|  |  | Unidentified Gulls | *Larus* | 635 | 357 |
|  |  | Unidentified Terns | *Sterna* | 19 | 15 |
|  | Alcidae | Dovekie | *Alle alle* | 509 | 507 |
|  |  | Common Murre | *Uria aalge* | 66 | 63 |
|  |  | Thick-billed Murre | *Uria lomvia* | 38 | 38 |
|  |  | Unidentified Murres | *Uria* | 328 | 321 |
|  |  | Atlantic Puffin | *Fratercula arctica* | 33 | 33 |
|  |  | Razorbill | *Alca torda* | 12 | 12 |
|  |  | Black Guillemot | *Cepphus grylle* | 4 | 4 |
|  |  | Unidentified Auks | Alcidae | 319 | 319 |
|  | **Total** |  |  | **2786** | **2469** |

Table 2.List of terrestrial bird species observed during surveys on the Scotian Shelf AZMP from 29 March to 17 April 2025.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Family** | **Common Name** | **Latin** | **Total number observed** |
| **Terrestrial Birds** | |  |  |  |
|  | Emberizidae | Unidentified Sparrows | Emberizidae | 6 |
|  |  | Dark-eyed Junco | *Junco hyemalis* | 1 |
|  | Regulidae | Golden-crowned Kinglet | *Regulus satrapa* | 2 |
|  | Picidae | Northern Flicker | *Colaptes auratus* | 1 |
|  |  | Unknown Bird | Aves | 2 |
|  | **Total** |  |  | **12** |

Table 3. List of non-avian species observed during surveys on the Scotian Shelf AZMP from 29 March to 17 April 2025.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Common Name** | **Latin** | **Total number observed** |
| **Marine mammals** | |  |  |
|  | Harbour Porpoise | *Phocoena phocoena* | 5 |
|  | Bottlenose Dolphin | *Tursiops truncatus* | 2 |
|  | Long-finned Pilot Whale | *Globicephala melas* | 15 |
|  | Unidentified cetacean | Cetacea | 3 |
|  | Unidentified seal | Phocidae | 1 |

Table 4.List of marine bird species observed during surveys in the Gully MPA on 12 and 14 April 2025.

|  |  |  |
| --- | --- | --- |
| **Common Name** | **Latin** | **Total number observed** |
| Unidentified Murres | *Uria* | 9 |
| Unidentified Auks | Alcidae | 8 |
| Common Murre | *Uria allge* | 8 |
| Black-legged Kittiwake | *Rissa tridactyla* | 5 |
| Black Guillemot | *Cepphus grylle* | 4 |
| Great Black-backed Gull | *Larus marinus* | 4 |
| Atlantic Puffin | *Fratercula arctica* | 3 |
| Common Eider | *Somateria mollissima* | 2 |
| Thick-billed Murre | *Uria lomvia* | 1 |
| **Total** |  | **44** |

Table 5.List of marine bird species observed during surveys in the St. Ann’s Bank MPA on 7-8 April 2025.

|  |  |  |
| --- | --- | --- |
| **Common Name** | **Latin** | **Total number observed** |
| Unidentified Murres | Uria | 54 |
| Black-legged Kittiwake | *Rissa tridactyla* | 35 |
| Unidentified Auks | Alcidae | 26 |
| Herring Gull | *Larus argentatus* | 11 |
| Northern Fulmar | *Fulmarus glacialis* | 9 |
| Common Murre | *Uria aalge* | 8 |
| Northern Gannet | *Morus bassanus* | 8 |
| Ring-billed Gull | *Larus delawarensis* | 5 |
| Unidentified Gulls | *Larus* | 8 |
| Thick-billed Murre | *Uria lomvia* | 3 |
| Leach's Storm-Petrel | *Oceanodroma leucorhoa* | 1 |
| Razorbill | *Alca torda* | 1 |
| Sooty Shearwater | *Ardenna griseus* | 1 |
| Unidentified Terns | Sterna | 1 |
| Great Black-backed Gull | *Larus marinus* | 1 |
| **Total** |  | 172 |