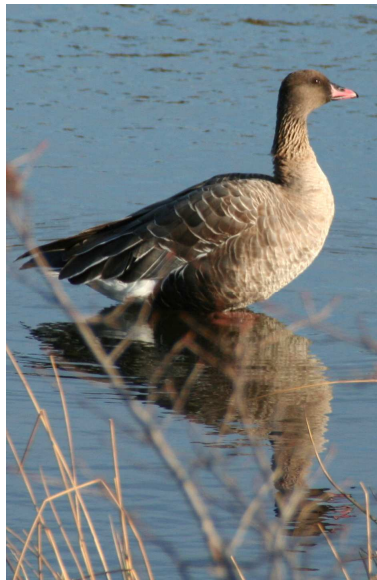


Vital signs of changing climate

Birds I View

Bill Montevecchi



Pick-footed goose

Everyone talks about the weather. Yet it is often difficult to follow the debate about climate change. Change is part of the nature and physics of things, including our environment. But change raises questions. How anomalous are the changes we are experiencing? What roles might we have in causing, ameliorating or at least attempting to understand these changes? How might we engage change in proactive rather than in simply reactive ways?

Signs of climate change

Within our lifetimes, most of us and especially us elders, would agree that the situation has changed. Weather patterns have become more variable. It can be bitterly frigid one day, windless and mild the next. Take this past winter for example. No Winter Games in Labrador – not enough snow. Blizzards in Washington, D.C. – worst ever! We are experiencing increased frequencies of extreme storm and weather events. These changes are indeed climatic.

Arctic Sea Ice

The Northwest Passage is now an environmental reality. The sea ice retreat and glacial deterioration in the Arctic is so profound as to behoove skeptics. It is a radically changed seascape from what it was a mere few decades ago.

But if there is less ice in the Arctic, why were there record influxes of sea ice in Newfoundland and Labrador in 2007? The massive incursion of sea ice along the Newfoundland coast during spring 2007 entrapped more than 200 sealing vessels, and created largest search and rescue operation in Canadian history.

Those conditions also trapped murrelets in narrow openings in waters close to shore. Not able to find sufficient food and not attempting to fly out over the ice that extended more than 100 km out to sea, the murrelets starved and died of hypothermia. Ironically, these thick-billed murrelets were soon to be heading to breeding colonies in the Arctic. Somewhat similar sea ice conditions occurred in 2009, and seabirds were again trapped in near shore pack ice prisons.

This past winter and spring, an extreme ice record occurred in the opposite direction. There is no Arctic ice off our coast, no pupping harp seals and no seal hunt. We have to consider the consequences of poor ice conditions for ice-dependent seals, polar bears, Arctic cod and the other marine animals that they interact with.

Causes of Change

The extreme ice conditions in Newfoundland in 2007 and 2009 were due to deteriorating ice conditions in the Arctic. In both 2007 and in 2009, the Arctic ice bridge in the narrow Nares Strait between Ellesmere Island and Greenland failed to form. The “bridge” is created by sea ice jamming the narrow passage way between the landmasses. Atmospheric and wind conditions prevented the ice bridge formation during these years. Hence the poor ice conditions in the High Arctic during these years created more intense ice conditions in the Newfoundland and Labrador region.

Strikingly, over the past 50 years for which there are adequate ice records available for the Nares Strait, there have only been three years during which the ice bridge did not form. These are all recent occurrences during 1993, 2007 and 2009.

During this past winter and spring, a massive warm weather high pressure system was situated over Greenland. The huge Icelandic low pressure system that drives so much of the winter weather conditions in the North Atlantic was situated well to the south of its usual position and hovered over the Azores. The mild winter weather conditions in Labrador and Newfoundland were a result of these atmospheric conditions.

What’s going on? In 2007, records were broken for sea concentrations in the Newfoundland region and three years later records were again broken for opposite conditions – the absence of sea ice in the Labrador Sea. Does this reflect climate change? Indeed it does.

You can read the scepticism in *National Post*, but you don’t need a weather man to know which way the wind blows. What we do need is to use science to better understand the way that the climate is changing and how it will change our environments and the ways that we live our lives.

Birds in the area and around the province

Thousands of common eiders were in the Pouch Cove (Don McKay) and off Cape Spear (Terry Janes) in mid-March. A baby beluga whale has been hanging about the harbour in Bay Bulls (Joe O’Brien).

Eagles both young and old have been numerous around the area this winter. In mid-March, eagles were soaring above Green Island in Witless Bay sending blizzards of kittiwakes

off their nesting cliffs. In St. John's Harbour, a juvenile eagle developed an indirect fishing technique by swooping at diving cormorants surfacing with fish (Chantelle Burke).

A shrike has been seen in Pouch Cove (John Maunder). The robins that overwintered elsewhere in Newfoundland returned to the Portugal Cove-St. Philips area as the snow melted and opened bare ground (Jon Garvin). The gannets returned to the Bird Rock Blarney Stone at Cape St. Mary's as expected on St. Patrick's Day (Tony Power).