Headwinds caused by warm weather a danger to migratory birds

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An unseasonably warm autumn in the Maritimes could create a deadly challenge for some migratory birds, according to biologists.

The southerly winds that bring the warm weather to the Maritimes create a headwind that migratory birds need to fly though in order to go south. Birds use more energy to fly through a headwind, and if they're flying over water and can't find food to refuel, they can die.

In a normal autumn, a north wind comes down from the Arctic and provides birds with a boosting tailwind, making their flight a little easier.

"The warmer weather we're having this season is largely attributed to those southerly winds, so birds might hang out longer here in Atlantic Canada waiting for the winds to change," said Garry Donaldson, the acting director of the Canadian Wildlife Service in the Atlantic region.

But the shortened daylight hours or a lack of food can push some birds to make the trip despite the wind.



Swallows have seen their population decline in recent years, according to biologist Andrew Horn. (John Blue)

"If they're waiting a really long time they might decide to risk it and fly into those headwinds and, you know, take their chances on making it to their destination."

Donaldson said the semipalmated sandpiper runs into this problem. The bird spends part of its summer feeding around the Bay of Fundy to fatten up for its migration across part of the Atlantic Ocean and Caribbean Sea to reach southern North America and South America.

• Are the Prairies getting quieter? Songbirds are declining in number

Since much of its migration is over water, the semipalmated sandpiper can't get extra food.

"If they don't get the right amount of fuel or they burn up more than they expected along the way, they are probably not going to have a successful migration," said Donaldson.



Swifts have seen their numbers drop off in recent years. (Noel Camilleri)

Over the years, songbirds have faced some of the steepest population declines, according to Dalhousie University biologist Andrew Horn. He said nighthawks, swallows and swifts have all seen their numbers drop off.

"Lots of these species — especially ones that go a particularly long distance in their migration — are the ones that are particularly in decline. So that's a hint that maybe it's something going on in their migration that's causing their decline."

• Bird species declining in Canada, report says

It's not clear exactly how many birds have died this way, but Horn said researchers are working to figure that out.

In 2012, a comprehensive report called The State of Canada's Birds was published by a panel of experts. It stated that 44 per cent of Canada's 460-plus species have seen their population decrease since 1970. Sixty-six of those species' populations had fallen so dramatically they are considered endangered.

Mismatched migration

Birds aren't safe if they stay put in Canada, either. If the birds wait for the southerly winds to drop off they could have trouble finding food as they start their journey south, said Donaldson.



The common nighthawk can travel long distances during its migration south. (Phil Laplante Jr./CBC)

"If it's been warmer and the insects have sort of emerged and moved on before the birds get there, then the birds are going to arrive and find their food source is not quite available the way it used to be."

Donaldson and Horn agree that one warm autumn probably won't hurt bird populations much. But as climate change continues to raise temperatures and birds continue to lose habitat, some species may have a hard time surviving.