

**CLIMATE CHANGE PUTS BOREAL DUCKS AT RISK**

Ever since the 1970s, when the duck population first began drastically declining in Canada's boreal forest, scientists have been scratching their heads. Until recently, no one could zero in on the reason why. All investigators could say for certain is that there are millions fewer of these **fowl** today than there were just three-and-a-half decades ago. Now, however, ecologists think they have the answer – **global warming**.

**WELL-TRAVELLED DUCKS**

In what way is **climate change** affecting these birds? Scientists explain that ducks are **migratory** creatures, spending summers in the north and flying thousands of kilometres south in winter. Some even travel as far as Central America.

Signals such as the amount of daylight and other natural phenomena tell the birds when it is time to move. These instincts maximize their chances of finding the food and weather conditions they need for survival. For example, they traditionally return north in spring just in time to dine out on a banquet of insects born at that time. Mother ducks especially need the insect feast before they lay their eggs in June.

**SPRING COMES TOO SOON**

But now it appears that the internal clocks of the birds have been thrown off because winter ends sooner every year.

"We found that over a 35-year period spring comes on average about 11 days earlier," explains Stuart Slattery,

the Manitoba research scientist who headed a study regarding the vanishing ducks.

He adds that by the time the birds arrive, there aren't enough insects to satisfy them.

"Because of climate change, the ducks don't have the food they need when they need it," he says. "As this mismatch gets worse, the ducklings are impacted the most. The food just simply isn't there in the amounts that it was historically."

**THE SCAUP AND THE SCOTER**

Not every species of duck is vanishing, however. Ducks are members of the anatidae family of waterfowl that also includes geese and swans. In all, there are 35 species of anatidae that spend at least part of each year in Canada. But just two breeds of duck appear to be suffering due to the earlier spring – the scaup and the scoter.

Other kinds, such as the mallard, appear to have adapted by migrating back north earlier than they used to. But the scaup and scoter are having a harder time adjusting. Their numbers have dropped by 40 percent and 60 percent **respectively**. In fact, the scaup population has plummeted from six million to just 3.5 million since the 1970s.

Mr. Slattery emphasizes that this is another indication of the impact of global warming.

"We are experiencing climate change in a very real way. Duck populations

**THE BOREAL FOREST**

The boreal forest is located in the Earth's far north. The world's largest **biome**, it consists mainly of evergreens, as well as some larches, birches, and aspens. It stretches across Scandinavia, Russia, Alaska and northern Canada, covering an estimated 1.7 billion hectares. Within Canada, the boreal forest region covers more than 290 million hectares.

Canada's section starts in the Yukon and forms a band all the way southeast to Newfoundland and Labrador.

To its north is the treeline and the arctic. To its south are the forests of British Columbia, the grasslands of the Prairies and the forests of Ontario and Quebec. Many aboriginal tribes live and work within its reaches. As well, many Canadian communities log parts of the boreal forest to generate a substantial amount of their revenue.

The forest is home to caribou, bears, wolves and the billions of birds that visit to breed and raise their young.

The boreal forest regions of the world store more freshwater in wetlands and lakes and more carbon in trees, soil and peat than any other ecosystem. For this reason – and because of its raw beauty and the sheer diversity of the wildlife – conservationists are intent on preserving its integrity.

are getting smaller and smaller," he said. ★

**DEFINITIONS**

**BIOME:** a major ecological community type, such as tropical rain forest, grassland, or desert

**CLIMATE CHANGE:** a long-term change in global temperatures and precipitation due to natural conditions or to human activity.

**FOWL:** any of various wild game birds, such as pheasant, quail, wild ducks or geese

**GLOBAL WARMING:** an increase in the average temperature of the Earth's atmosphere

**MIGRATORY:** creatures that seasonally move from one habitat to another

**RESPECTIVELY:** in the order mentioned



# CLIMATE CHANGE PUTS BOREAL DUCKS AT RISK

## ON THE LINES

Answer the following in complete sentences:

1. What is the boreal forest? Explain.

---

---

2. How big is the boreal forest in Canada?

---

---

3. What has happened since the 1970s to the population of some of the ducks that migrate to and from the boreal forest?

---

---

4. What is the reason for this change, according to scientists?

---

---

5. What species of ducks are affected?

---

---

6. Why do scientists say other species of ducks haven't been affected?

---

---

7. Why are conservationists intent on maintaining the integrity of Canada's boreal forest? Explain.

---

---