



Time for Nature



Facing the rising tides

Climate change at Kouchibouguac National Park of Canada

Kouchibouguac National Park of Canada is a rich mosaic of bogs, salt marshes, tidal rivers, sheltered lagoons, tall forests and ever shifting sand dunes.

Its beaches are home to the endangered piping plover, and colonies of harbour and grey seals frolic along its shores.

Unfortunately, these special features are threatened by a rising sea level and unpredictable storms resulting from changes in our climate.



Erosion from rising sea levels threatens the dunes at Kouchibouguac.

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Parks Canada is studying these changes so that managers can minimize damage to the park's natural features and its facilities.

What rising sea levels can do

Along New Brunswick's coast, climate change is leading to higher and more frequent flooding of low-lying areas and erosion of dunes and cliffs.

The park itself is very sensitive to rising waters. Salt marshes and lagoons along the coast may be damaged. And the park's dune system, which acts as a protective barrier,



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At Kouchibouguac, more than 130 species of plants grow on the dunes. The plants stabilize the shifting sands. Only a few, however, are able to colonize disturbed areas. Once the dunes are damaged by erosion, it is difficult for vegetation to re-grow. The dunes become even more vulnerable.

Rising sea levels could reduce the available nesting habitat for the endangered piping plover.

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Park visitors are also affected. Beaches are altered, and facilities such as boardwalks



and car parks are damaged.

A good defensive plan

No one can foretell the future, of course. Nevertheless, scientists must try to predict future changes if they are to protect the park's wildlife. Their goal is to sustain vibrant coastal ecosystems, even as sea levels rise.

The first step in creating an environmental baseline is defining exactly how the park is faring now. Scientists are studying park habitats to answer several key questions:

- What does the park have now?
- How much is there?
- What might we lose or gain as sea levels rise?

The information they collect will help them measure future change, and predict the likely result.

By keeping close watch, managers can develop better wildlife management strategies. They may, for example, restore habitats that are lost to erosion or flooding, or develop special measures to protect vulnerable species like the piping plover.

Places for people

Data from the study will also help researchers protect the infrastructure that people rely on. To gain insight, they are looking at how coastal processes affected park structures in the past.

Aerial photographs taken at several intervals since the 1950s are proving invaluable. They exhibit how various campgrounds, a wharf, and a day use area have evolved as the coast has changed.

By studying past processes, park managers can gain an idea of what they can expect as climate change - and be prepared for the future!

For more information visit www.pc.gc.ca/kouchibouguac



The park's marshes, an important attraction for visitors and for wildlife, are among the habitats most vulnerable to climate change impacts. © Parks Canada, B. Townsend, 2001.