



CORE News

Ecological COnservation and REstoration
Projects in Prince Edward Island National Park

August 2015

Current Projects:

- Acadian Region Reforestation
- Balsam Hollow Trail
- Brackley Day-Use and Group Tenting Area
- Cavendish Grove
- Reducing Our 'Footprint'
- Robinsons Island

Completed Projects:

- Balsam Hollow Brook and Dalvay Lake Outflow
- Planting Trees with the Friends of Covehead and Brackley Bay Watershed Group
- Cavendish Sandspit Road and Dune Restoration
- Monitoring the Gulf of St. Lawrence Aster



I am pleased to present CoRe News, which outlines and provides an update on several ecological conservation and restoration projects in Prince Edward Island National Park.

Through projects like these, Parks Canada is supporting the National Conservation Plan and taking concrete action in conserving Canada's lands and waters, restoring Canada's ecosystems, and connecting Canadians to nature.

As you will see in this newsletter, our Government is making great strides in protecting and restoring the ecological health of PEI National Park. By reducing the "human footprint" and restoring elements of three main ecosystems in the park, Parks Canada is working to ensure the ecological integrity of this treasured place for the enjoyment of present and future generations. The creation of

new low-impact visitor experience opportunities will encourage Canadians to connect with nature.

These projects have provided amazing opportunities to engage stakeholders and partners to work together on conservation and restoration initiatives in the Park.

Our Government is a leader in national park conservation and ecological restoration and I am proud of the excellent work that the staff, community and partners have done to restore the ecological health of Prince Edward Island National Park.

The Honourable Gail Shea, P.C., M.P.
**Minister of Fisheries and Oceans
and Regional Minister for
Prince Edward Island**



Prince Edward Island National Park

is a beautiful place with, among other things, spectacular red cliffs, majestic dunes, and sparkling waterways. The landscape within its borders bears evidence of hundreds – and in some cases – thousands of years of history, telling the tales of its evolution and the impact of both natural and human events. There are areas within the park, however, where the ecological chapter of the story shows signs of needing help, of needing restoration.

The goal of restoration is to improve the environment for the plants and animals that call our park home. With this in mind, our actions are primarily focused on freshwater, forest, and coastal ecosystems. (Infrastructure removal has already taken place in a variety of locations as a way of reducing our overall 'footprint' in the park.) Restoration supports Canada's National Conservation Plan by taking practical action

to restore our ecosystems and contribute in a positive way to the conservation of Canada's lands and waters.

To find a balance between providing services to visitors and providing the best possible habitat for plants and animals is not an easy task. It is the quest for just such a balance that is at the heart of Parks Canada's mandate and of our actions as stewards of this treasured Canadian landscape.

I invite you to learn more about these projects, as well as other initiatives, by visiting our website at www.pc.gc.ca/pei under the What's New section, or by contacting us by phone at 902-566-7050 or by email at pnipe.peinp@pc.gc.ca

Karen Jans
**Field Unit Superintendent
Prince Edward Island National Park
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FRESHWATER ECOSYSTEM PROJECTS

Balsam Hollow Brook and Dalvay Lake Outflow

A culvert is a structure that allows water to flow under a road, railroad, trail, or similar obstruction. Typically embedded so as to be surrounded by soil, a culvert may be made from a pipe, reinforced concrete, galvanized steel, plastic, or other material. Poorly functioning culverts can sometimes pose real problems for aquatic connectivity for fish. In other words, they can make it difficult for fish to move easily through our waterways if they are not designed or installed properly, and create a serious issue in terms of the overall aquatic health of the area. Three culverts were identified for attention.



*Improved culverts installed
at Balsam Hollow Brook*

Two culverts at Balsam Hollow Brook impeded the passage of fish: the first one near an unused path was simply removed, but the solution for the second culvert was more difficult because of its steep slope. The new culvert had to be modified with ‘baffles,’ the aquatic equivalent of speed

bumps, to slow the speed of the water and allow fish of all sizes to swim upstream. After the culvert was installed, Parks Canada’s ecologists tagged brook trout and released them downstream. Shortly afterwards, a portion of those tagged were identified upstream, indicating initial success. At the same time, the ecologists spotted fish 60 to 160 millimetres long, proving that even the smallest fish were making the trip upstream successfully.

When the Dalvay portion of the Gulfshore Parkway was upgraded in 2011, Parks Canada replaced the 70 metre-long culvert at the outflow of Dalvay Lake. The new system includes a segmented culvert featuring a catch basin mid-way, which lets the fish move safely at all water levels and provides a ‘rest stop’ between the lake and the ocean. Ecological monitoring recorded the highest ever catches of American Eel in Dalvay Lake during the 2014 sampling period: 17 eels were caught, more than doubling the previous maximum of 8. American smelt were also detected for the first time, both upstream and in the culverts ‘rest stop.’

For more information, please see www.pc.gc.ca/pei-freshwater

FOREST ECOSYSTEM PROJECTS

Acadian Forest Region Reforestation

The Acadian forest region, characterized by a mixture of hardwood and softwood trees including sugar maple, yellow birch, American beech, eastern hemlock, eastern white pine, and red spruce is found in the Maritime Provinces and elsewhere in Eastern Canada. The forests that now exist in Prince Edward Island National Park occupy lands that were at one time cleared for agriculture. When the park was established in 1937, white spruce forests eventually came to dominate the park's forested landscape. Our reforestation plans hope to set the stage for healthier forests—forests with a variety of trees at all stages of growth, as well as shrubs and small plants and mosses on the forest floor.

The 1,200 hectares of forest in Prince Edward Island National Park will one day be a showcase of the native Acadian forest. This is a vast undertaking whose results will not be apparent this year or next year, but rather in several decades. A plan has been drafted and priorities are being clarified. Meanwhile, work towards this long-term goal has already begun adjacent to the Farmlands and Bubbling Springs Trails.

Small-patch cuts, which mimic small-scale natural disturbances, have been completed. Planting of Acadian forest species, which are under-represented in the landscape, such as sugar maple and yellow birch that at one time dominated the forest, is scheduled for the fall of 2015.

For more information, please see www.pc.gc.ca/pei-acadian-forest

Planting Trees with the Friends of Covehead and Brackley Bay Watershed Group

In cooperation with Parks Canada, members of the Friends of Covehead and Brackley Bay Watershed Group have planted strips-cuts that were made in the white spruce forest near the Farmlands Trail in the park. Just like small-scale natural disturbances, these cleared strips create gaps in the canopy producing temperature and moisture conditions suited to the growth of the desired tree species.

The Watershed Group planted 5,000 seedlings of Acadian forest tree species that were either not well represented or missing altogether, such as eastern white pine, eastern hemlock, yellow birch, red oak, red spruce, and sugar maple. This will encourage a renewal of species diversity



*Aerial of cleared strip-cuts
in white spruce forest*

and overall forest health. With the success of this effort, Parks Canada and the Friends of Covehead and Brackley Bay Watershed Group may work on future initiatives together.

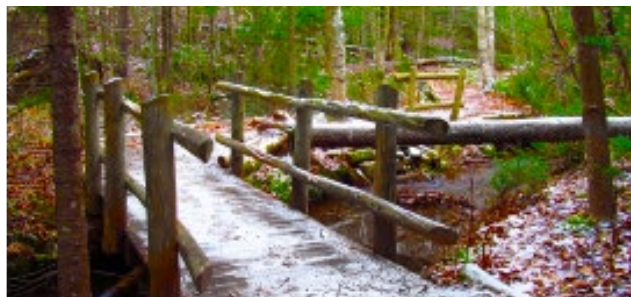
For more information, please see www.pc.gc.ca/pei-planting-trees

Balsam Hollow Trail

Balsam Hollow Trail is one of two trails at Green Gables Heritage Place and is located behind Green Gables House. Popular with visitors for its beautiful, winding paths that wander over a brook and through mature riparian forest, Balsam Hollow Trail features “Lovers’ Lane,” one of L. M. Montgomery’s own childhood haunts made famous in her novel, *Anne of Green Gables*.

The number of bridges on the trail, however, increased the amount of soil erosion and siltation of the stream, and plants along the sides of the brook were inadvertently stepped upon adding to the soil eroding into the water. In addition, the proximity of the trail to the Green Gables Golf

Course was a source of concern. In 2014, the trail was re-routed away from the brook and from the boundaries of the golf course, six bridges were removed, and a new stairway built near the trail’s end. The upcoming reforestation plan will focus on planting Acadian tree species and riparian shrubs near both the brook and trail.



The redeveloped trail has retained all of its beauty and mystery while at the same time preserving the plants and animals that call it home. There are bridges to cross and woodland vistas to discover in a truly enjoyable experience for visitors.

For more information, please see www.pc.gc.ca/balsam-hollow-pei

Brackley Day-Use and Group Tenting Area

In recent years, this area has experienced reduced demand and use. There is also concern about waste water disposal systems and their potential impact on nearby dunes. Because of these reasons, it was identified as a location for reforestation. Group tenting activities were moved to the Stanhope Campground, the tennis court was closed, and a large portion of the day-use section was left to regenerate naturally. We will do our best to accommodate groups (who had used the area for events) elsewhere in the park. Restoration and reforestation work is scheduled to begin in 2015.

For more information, please see www.pc.gc.ca/pei-group-areas



Signage at Balsam Hollow Trail entry

Cavendish Grove

Cavendish Grove became part of Prince Edward Island National Park in 2005. Since that time, the buildings and infrastructure of the former amusement park were removed and hiking and biking trails developed to create an expanded network of trails in the Cavendish area. A new washroom was also built. Visitors were invited to use the area for picnicking in a peaceful, natural park-like setting.

We now hope to restore the man-made ponds to a natural condition and the forest to its former diversity, and, at the same time, enhance opportunities for visitor experience. A comprehensive plan will be developed in the fall of 2015 to guide the restoration and development



Reducing Our 'Footprint'

Infrastructure removal is an important aspect of restoring the ecological integrity in Prince Edward Island National Park. We have already begun this process in a variety of locations as a way of reducing our overall 'footprint' in the park. As part of this task, sixty-five buildings were selected for assessment by Parks Canada staff for their usefulness, condition, historic value, and for the possible occurrence of contaminants. Through this analysis, they were all identified for removal and, in 2014, twenty-seven were demolished. These buildings were unused, dilapidated, and/or contained hazardous materials. For many of the buildings, demolition was a straightforward job—the buildings were taken down, the material disposed of according to regulations, and topsoil added to the land where the buildings had been.



of this natural oasis in the bustling community of Cavendish. Possibilities include new low-impact infrastructure, such as picnic and rest areas, additional trails, and learning experiences for visitors using, for example, panels, exhibits, or displays.

Last fall, we asked you how Cavendish Grove could be a better green space. Over 140 local residents, businesses, and interested members of the greater community sent in comments. The responses were analysed and, overwhelmingly, people said that they would like: *...trails with family-friendly picnic facilities and good signage, using natural materials in natural surroundings...*

For more information, please see www.pc.gc.ca/cavendish-grove



Reforestation of the sites is expected to begin in 2015 and will focus on planting Acadian forest species, another step towards our goal of restoring the forest in Prince Edward Island National Park.

For more information, please see www.pc.gc.ca/pei-footprint

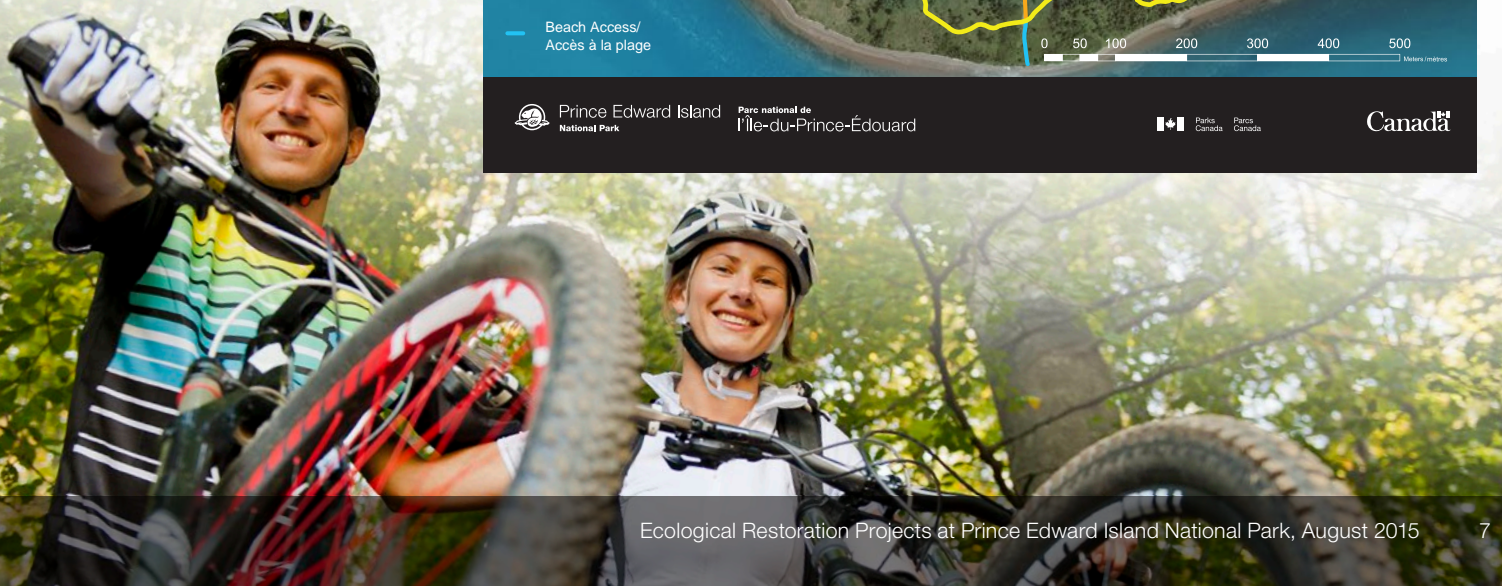
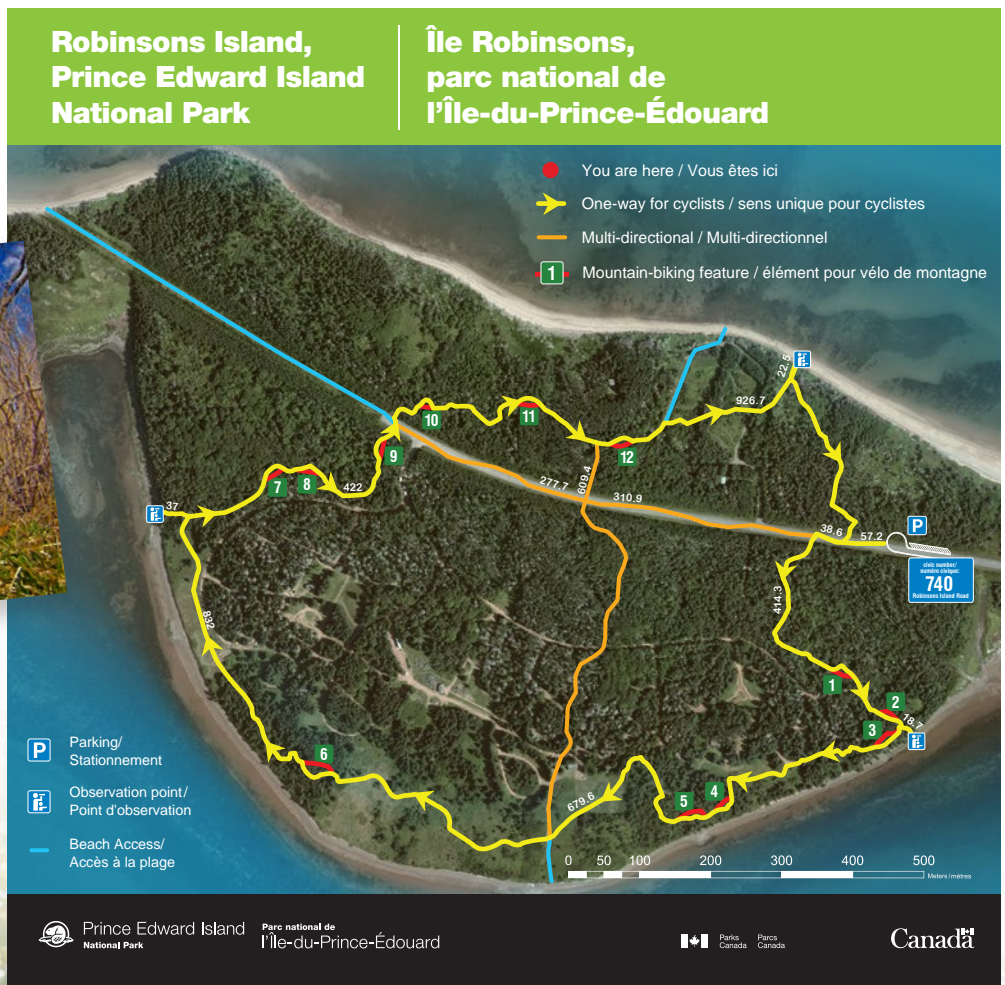
Robinsons Island

Robinsons Island, home to important archaeological finds and the location of a once-popular campground, has been restored to a place of discovery and natural exploration. All of the former campground infrastructure has been removed and in its place we have created a new, multi-use trail system designed with young, active families in mind. The six kilometre, stacked-loop-design trail will take visitors all around Robinsons Island and include beach access points and observation stations with spotting scopes. For the more adventurous cyclist, there is a series of mountain biking spurs, constructed with the help of the International Mountain Biking Association and Cycling PEI, just off the

main trail. Interactive interpretive panels will be installed in June 2015 to help people connect with the natural and cultural heritage of this special place.

The reforestation plan for the former campground area will focus on Acadian forest species, especially those largely absent from the landscape, such as sugar maple, yellow birch, and eastern hemlock.

For more information, please see www.pc.gc.ca/robinsons-island-pe



COASTAL ECOSYSTEM PROJECTS

Cavendish Sandspit Road and Dune Restoration

The removal of the road was imperative to restoring the ecological health of the salt marsh which bordered it on both sides. The road was removed in a careful, step-by-step process and surrounding areas were monitored to assess the impact of this work on the ecosystem. In 2014, the cleared roadway was planted with young native shrubs and trees which grew well despite a hot, dry summer.



Planting on Cavendish Sandspit Road



▲ Transplanting marram grass by hand

Efforts were also made to stabilize nearby sand dunes by placing Scotch pine, which was removed from other areas of the park as part of the invasive species removal program, in the dune blowouts in order to trap the sand and help rebuild the dune structure and function. Nursery-raised marram grass was transplanted alongside the Scotch pine to help hold the growing dunes in place.

For more information, please see www.pc.gc.ca/cavendish-restoration-pei



Volunteers working to restore dunes



Monitoring the Gulf of St. Lawrence Aster

The Gulf of St. Lawrence Aster has been listed as a threatened species since 2004. It is a small, annual plant that grows in areas of high salinity, like at the edges of salt marshes and along the margins of ponds behind coastal dunes. This rare plant was historically found in seven places on Prince Edward Island, but, recently, it was only spotted at Blooming Point in PEI National Park. There is some good news: five plants were found at Campbell's Pond outflow in 2014 after having been absent at this location since 2009.

In partnership with the University of Prince Edward Island, a study was done to investigate the possibility of transplanting greenhouse-grown Gulf of St. Lawrence Aster to the habitat at Blooming Point. Ongoing monitoring of results indicate that transplants survive and reproduce at the site. It is unknown, however, if the technique can sustain the population over the long term.

Parks Canada continues to monitor the presence of the Gulf of St. Lawrence Aster at current and historically-occupied sites.

For more information, please see www.pc.gc.ca/st-lawrence-aster-pei

