January 2018 Newsletter

Newfoundland Marten Showing Signs of Recovery

A Newfoundland Marten visits a hair snag device along the Main River of Newfoundland. Photo (2016) by Brendan Kelly.

The Newfoundland marten is a genetically distinct population that is restricted to the island of Newfoundland. During the past several years, its status has improved from endangered to threatened, and new evidence collected by volunteers across the island is contributing to a growing awareness of continued improvement towards marten recovery.

Since 2013, Intervale has coordinated a marten stewardship project that aims to reduce the threat of incidental mortality associated with trapping and snaring activities and to engage volunteers in the collection of samples that provide evidence of marten occurrence in their area. The goal is for the population of wild marten to increase and be maintained at a level at which it is no longer a conservation concern and for its distribution to spread to areas across the island where marten occurred historically.

The marten population in Newfoundland was estimated at 286-556 individuals in 2007. Wildlife researchers and managers now believe that marten numbers are improving and that the species is on the road to recovery, in part due to changes in habitat use, increased prey availability, and a reduction in incidental mortality thanks to changes in snaring and trapping techniques. However, marten still face threats caused by human activities, particularly habitat loss, incidental capture in traps, and the illegal use of stainless steel snare wire for snaring. The latter two threats are being addressed by Intervale with the help of the Newfoundland and Labrador Trappers Association and the provincial Forestry and Wildlife Branch.

Marten Stewardship Coordinator Eric Bennett has been speaking with trappers, snarers, youth groups, and managers of outfitting stores to convince trappers to convert to water-based mink box traps and snarers to use approved 22-gauge brass wire instead of stainless steel wire and poorer performing 22-gauge wire. Since 2016, Eric has spoken to more than 300 people, 133 of whom are active snarers. These include youth in 20 classrooms and students of trapper education courses. He presents people with free samples of approved 22-gauge brass wire and trappers with floating mink box traps, which he personally constructs. Floating mink box traps have proven to prevent accidental capture of Newfoundland marten and other nontargeted species including domestic pets.

Students of the College of the North Atlantic Fish and Wildlife Technician program collect hair samples while monitoring for Newfoundland marten in the Corner Brook area. Photo (2016) by Leslie Daye.

Tracking Marten Distribution

Meanwhile, Eric has been coordinating the work of more than 80 volunteers across the province, who have been collecting hair samples from marten and other species using a non-invasive technique referred to as hair snags. The hair snag structure is a wooden platform mounted to a tree in forested habitat. It contains sardine bait, sticky tape, and skunk lure. Attracted by the alluring scent, a marten or other mammal such as a squirrel brushes against the sticky tape while accessing

the sardines, causing a small sample of hair to remain on the tape. Volunteers, who check the structures regularly, send the hair samples to the Wildlife Division for confirmation. After an initial screening, samples are sent to a research lab in St. John's, where they are tested using DNA analysis. Eric then forwards the results back to the volunteers, who are eager to know whether their structures were visited by marten. Thus, volunteers contribute important information that helps researchers to determine the spread of marten and to better assess the pace of recovery.

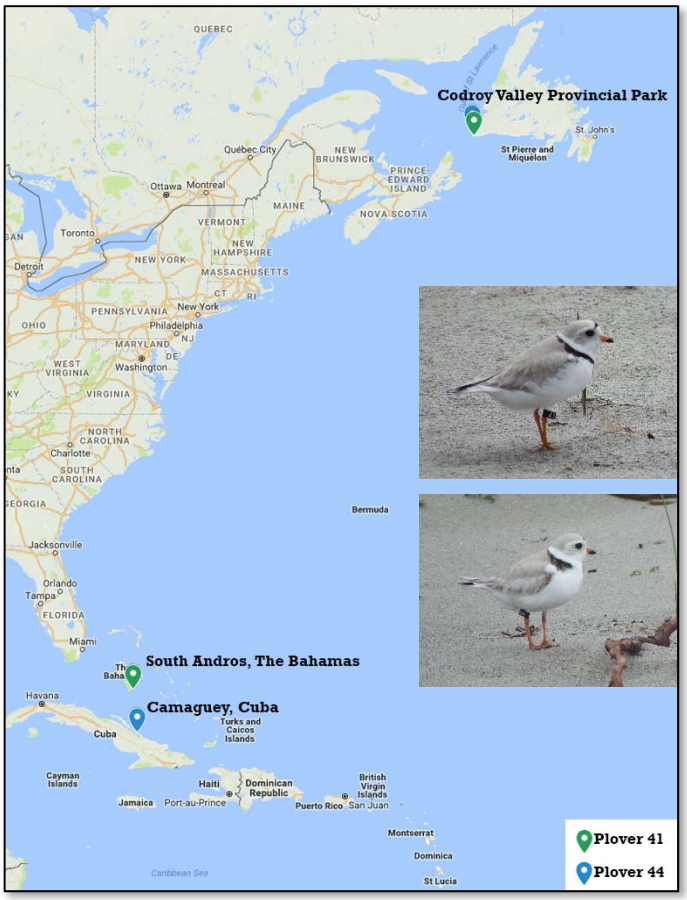
During the 2016-2017 winter season, 39 samples were sent off for DNA analysis, of which 32 were confirmed marten, representing 21 individual marten. For the 2017-2018 season, Eric is recruiting new volunteers in priority areas, including Comfort Cove, Carmanville, Baie Verte, and Bunyon Cove. He also plans to recruit new volunteers in the areas of Roddickton, Burgeo, and the Codroy Valley. Staff at Intervale and the Forestry and Wildlife Branch are hoping that the 83 volunteers participating in the surveys will produce records of confirmed marten in areas that marten have not been known to occupy in many decades.

Intervale thanks the Newfoundland and Labrador Trappers Association, which provides exceptional assistance and promotion through the trapper education courses, and the many volunteers who run the hair snag surveys.

Piping Plover Pair Nest Two Years in Codroy Valley, Spend Winters Miles Apart

Piping Plover chicks on Grand Bay West Second Beach. Photo (2017) by Russell Wall.

The Piping Plover is a small shorebird that nests on beaches of eastern Canada, northeastern U.S., and in the northern Great Plains/Prairies and the Great Lakes. In Newfoundland, Piping Plovers nest from late April to mid-August. Listed as endangered by Canada and the Province of Newfoundland and Labrador, less than 35 Piping Plovers have been returning to Newfoundland in recent years, most of them along beaches of the southwest coast. Since 2013, Intervale staff and volunteers have been conducting stewardship and monitoring activities on select beaches to assist with the species' recovery.



Map showing the breeding and wintering sites of banded Piping Plovers No. 44 and 41. Photos (2017) by Russell Wall.

During the summer of 2017, a team led by Project Coordinator Russell Wall monitored Piping Plover on 10 beaches and completed re-sighting work on 15 beaches, following protocols established by Environment and Climate Change Canada. On the monitored beaches there were nine pairs of Piping Plover, an increase of 28% compared to the same beaches in 2016. Productivity, defined as the average number of chicks fledged per monitored pair, was at 1.56 chicks fledged per nesting pair.

The team re-sighted 22 different banded Piping Plovers throughout the summer, including some adults and chicks that were banded in June. These data are helping to determine the migration patterns of Newfoundland Piping Plovers, and early results suggest that many of the same birds are returning to Newfoundland beaches in successive years. For instance, banded plovers 41 and 44 have been spotted on Newfoundland beaches in each of the last three years. They paired up in 2016 and nested together on Codroy Valley Provincial Park beach in 2016 and 2017, fledging a total of six chicks over two years. These two plovers have also been spotted on the wintering grounds, although not together. Banded plover 41 has been spotted wintering over 3,000 km

away from Newfoundland in Camaguey, Cuba, while banded plover 44 was observed wintering in the Bahamas!

Many beach walkers kept their dogs on leash and walked on wet sand, away from plover nesting areas. In instances where staff spoke to individuals who let their dogs run off leash, the owners were quick to leash their dogs and expressed support of plover conservation measures. Disturbance caused by ATVs is still considered the most important threat to breeding Piping Plover, eggs, and chicks in Newfoundland. Intervale staff plan to reach out to home and cabin owners in areas adjacent to Piping Plover beaches to determine patterns of ATV use on the beaches and to garner citizen support. It is great to see the public's interest in and support for the Piping Plovers and the work that we do. Thank you!

Important Site for the Endangered Red Knot on the Great Northern Peninsula

On the Great Northern Peninsula of Newfoundland, the shoreline bordering the Strait of Belle Isle contains important stopover sites for shorebirds during fall migration. Some of these sites are within working waterfronts—the hub of coastal communities. The town of Anchor Point is home to over 300 residents, many of whom fish for a living or work at the local shrimp processing plant. Shorebird monitoring by Intervale has revealed that the intertidal flats and stone beaches adjacent to the harbour are important foraging habitat for more than 15 shorebird species during their southward migration from the Canadian Arctic to southeastern U.S., the Caribbean, or South America. One of these species is the endangered Red Knot, *Calidris canutus, rufa* subspecies.

Semipalmated and White-rumped Sandpipers feed near the harbour at Anchor Point. Photo (2017) by Kathleen Blanchard.

In mid to late July, shorebirds heading south begin to arrive on the Northern Peninsula. These include Greater Yellowlegs, Ruddy Turnstone, and Whimbrel. The Whimbrel fattens up on small crustaceans and on berries that it harvests from nearby barrens and heaths. Tracking studies have led scientists to believe that many Whimbrels, which begin their southward journey from the Mackenzie River Delta in Northwest Territories, fly east across Nunavut, Quebec, and Labrador to Newfoundland, then head out to sea for six days before eventually arriving at their wintering grounds in coastal Brazil! Stopover sites like Anchor Point allow Whimbrel and other shorebird species to feed and rest, which are essential for surviving the long migration.

Red Knots reached their highest numbers at Anchor Point during late August-early September, when many juvenile birds arrived from breeding grounds in the Arctic. Photo (2017) by Kathleen Blanchard.

Another champion traveler, the Red Knot, begins to arrive in early August on the tidal flats of Anchor Point. The first few adults appear with traces of salmon-coloured plumage still visible. By late August, Red Knot numbers increase as juvenile birds begin to arrive from breeding grounds in the Arctic. Mostly grey in colour, they blend in well with the limestone substrate as they feed on tiny mussels and periwinkles. During 2017, Kathleen Blanchard monitored this site repeatedly and on August 31 recorded her highest estimated count of 153 Red Knots.

The Red Knot, *rufa* subspecies, breeds in the Canadian Arctic and migrates south to South America. Those that travel as far south as Tierra del Fuego fly an estimated 15,000 km, or 30,000 km round trip each year, which researchers believe to be the longest migration of any shorebird in the western hemisphere! Stopover sites are critically important to survival, as evidenced by the discovery years ago that Red Knots arrive in Delaware Bay, U.S., during their northward migration just in time to feed on the newly-released eggs of horseshoe crabs. The eggs provide the energy Red Knots need to fuel their remaining journey to the breeding grounds in the Canadian Arctic.

The discovery of an important shorebird stopover site in Anchor Point comes with the responsibility to protect the habitat and to minimize disturbance to shorebirds. Intervale staff have been informing municipal leaders

and residents about the extraordinary feats of these long-distance migrants, with the objective of cultivating local interest in bird observation and stewardship. We have also given several presentations to youth in schools, engaged them in beach clean-ups, and taught them shorebird identification at the shore. Encouraging youth to follow best practices for ATV and pellet gun use is part of Intervale's campaign to help shorebirds while fostering environmental stewardship.

Intervale will continue to monitor the birds at Anchor Point and other stopover sites along the Northern Peninsula. Meanwhile, community leaders, workers in the fishing industry, teachers, and youth all demonstrate a keen interest in keeping their town a welcoming place, both for people and for the birds.

Lobster Harvesters Take Action to Reduce Marine Debris

Intervale wishes to thank the lobster harvesters of Barr'd Harbour and Josephine's Cove for their leadership and success, which they demonstrated in a pilot study conducted in June and July of 2017. More than 2,000 bait box liners were brought back to shore for disposal at the local landfill rather than at sea. Hundreds more were brought back to shore but could not be counted. Bait box liners are blue plastic liners for 22 and 33-pound cardboard boxes containing herring, used as bait in lobster traps. When disposed at sea, bait box liners drift as plastic bags, posing a dangerous threat to marine mammals and to the endangered leatherback turtle, which may mistake the liner for jellyfish--a preferred food. When ingested, bait box liners can be lethal, causing blockage of the digestive tract or a sensation of satiety. They can also contribute to toxic forms of pollution. When liners break up, they may be consumed by smaller marine life and therefore are a threat to commercial fish, shellfish, and plankton. The pilot study was sponsored the Quebec-Labrador Foundation.

Bait box liners wash ashore at Squid Cove in St. John Bay and along shorelines of nearby communities. Photo (2015) by Kathleen Blanchard.

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Intervale is a nonprofit organization, incorporated in Newfoundland and Labrador, with a mission to conserve biodiversity, interpret heritage, and promote the integrity of rural livelihoods. Intervale takes its name from the fertile meadows of the Codroy Valley.

For more information about Intervale please contact a member of our staff:
Kathleen Blanchard, Ph.D., Founder
Russell Wall, Director of Finance, and Coordinator, Piping Plover Project
Eric Bennett, Coordinator, Newfoundland Marten Project
Intervale Associates Inc.
P.O. Box 172
Doyles, NL A0N1J0 Canada
Tel: 709-686-5927
Email: info@intervale.ca
www.facebook.com/IntervaleAssociates
www.intervale.ca