Court Wildlife Division

Department of Environment & Conservation, Natural Heritage Branch

A three-week-old female moose calf arrived at Salmonier Nature Park on June 30, 2009. This

tiny calf, named Isabelle by the conservation officers who facilitated her transport to the park, was found in the middle of the community of Monkstown on the Burin Peninsula.

Observers saw the calf and her mother complete a one-kilometre swim across the bay; however, upon reaching shore, the cow was spooked by the large gathering of people. The young calf, too weak to continue, was left behind. For two days, conservation officers kept a close watch on the calf after moving her to the outskirts of the community where the cow had last been spotted, hoping for a reunion. The cow did not return, and the exhausted calf was becoming hungrier and more dehydrated as time went by due to her inability to nurse.

Normally if you find a seemingly abandoned wild animal, it's likely the mother is nearby foraging for food, and it is best

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Upon arrival at the nature park, Animal Care staff weighed the calf and introduced small quantities of fluids. The following day, veterinarians examined the calf and introduced liquid electrolytes to help treat dehydration. After a full day of this treatment, there was a marked improvement in the calf's overall condition.

Having a month-old calf accept an Animal Care technician as "Mom" is not an exceptionally easy task, and involves countless hours of gradually introducing the animal to the necessary human contact needed. This reduces stress on the calf, which in itself could prove fatal to the animal. Unless a calf is younger than one to two weeks old, it does not readily accept a bottle, and so it often takes several days of coaxing the animal to drink before it begins to show a real interest in the feedings.

A second chance



for abandoned moose

to not attempt to remove the animal, but to report your observations to local conservation officers. Removing the animal may likely prove unnecessary, detrimental to the animal, and very dangerous for yourself. Female moose are very protective and upon hearing their offspring in distress, they will become extremely aggressive.

In these extenuating circumstances, however, intervention was required to save the calf. Conservation officers contacted Animal Care staff at Salmonier Nature Park, and a specially constructed transport container was sent to the officer since the calf was difficult to handle.



After two days of bottle-feeding electrolytes, the animal was placed on milk. Animal Care staff have to be careful to introduce milk gradually to a calf who hasn't eaten for several days; there is a potential to cause severe gastrointestinal health problems. As such, the milk replacer is diluted from full strength to one-quarter strength and slowly increased. The calf was initially fed 20 ounces of milk replacer five times a day, which later increased to 30 ounces. By mid-August, the calf was weaned off the bottle and then fed milk from a pan until mid-September.

The calf's growth rate and general health were monitored carefully. Since it was almost a month old, the calf was likely already eating natural browse such as birch, maple, raspberry cane, ferns and fireweed, so its diet was supplemented with fresh browse on a regular basis right from the first day. By mid-summer, a special moose ration was added during the animal's regular bottle feedings. A small portion of this ration was placed in the calf's mouth to accustom the animal to the taste, and a bowl of this ration was left for the calf at all times. It took a week for the calf to begin eating the grain on its own. Sprinklers were set up on hot days to enable the calf to regulate its body temperature by moving into and out of the water. It was also important for the calf to have access to both shade and sun.

When Isabelle was completely weaned off milk and living on a diet of browse and moose ration, she was essentially independent of her keepers. Animal Care staff could not yet introduce her to Holly, the Nature Park's seven-year-old female moose, who was also raised as a bottle-fed calf, since Isabelle was still quite small and might not be able to flee if the adult became aggressive. Isabelle stayed in a separate enclosure until mid-November, when she had grown to an acceptable size to be safely introduced to Holly. To everyone's delight, Holly readily accepted Isabelle – it seemed they immediately bonded. Both animals are on display for the public at Salmonier Nature Park this summer, and Animal Care staff are currently bottle-raising a bull calf named Troy whose mother was killed in a collision with a motor vehicle. Hopefully this calf will be introduced to the females this fall.

- Rodney Collins

Piping Plover



From the Bahamas to Burgeo's Big Barasway

A Piping Plover banded in the Bahamas has

been sighted at Big Barasway Wild Life Reserve near Burgeo. This plover was banded in January 2010 at Island Seas Beach, Grand Bahama Island, the Bahamas, and is part of a pair currently raising three chicks on a beautiful sandy section of the outer beach at Big Barasway Beach. These chicks hatched from eggs laid in late May and brooded by both parents. Parents will continue to care for young by offering shelter and protecting the chicks from predators as best they can.

The life of young plovers is tough. Just a few hours after hatching, chicks leave the nest to find their first meal. Depending on where they live, they may face hungry mink, gulls, crows, foxes, dogs or cats during their early life. They are also at risk of being crushed by ATVs, dirt bikes, or even accidentally stepped on by people, especially because plover chicks are very well camouflaged.

The Big Barasway Wild Life Reserve provides some protection from these risks because of its relatively remote location, a ban on ATV use on the beach, and limited beach use by local residents. The outcome for young plover chicks being raised by our banded plover will be monitored by regular visits from Wildlife Division staff, who take note of the location, number and behaviour of Piping Plovers.

The Atlantic population of Piping Plovers breeds in the Atlantic Provinces, along the eastern seaboard of the US and on the islands of St. Pierre and Miguelon. They have recently returned to breed on the shores of Lake Huron in Ontario.

Piping Plovers are found in breeding beaches, often in areas with gravel, shells, wrack and sticks that help hide their nests from predators and provide shelter from the wind. Wintering plovers are found along the Atlantic and Gulf coasts of the US, Cuba, the Bahamas, along the Gulf coast of Mexico and some islands of the breeding in Maryland and Virginia. This will allow them to Caribbean.

elled to the Bahamas and worked with the Bahamas National Trust to tag plovers with unique band combinations so individuals could be identified once they reached the breeding grounds. The purpose of this effort is to learn more

about where plovers from the Bahamas are stopping over during migration and where they are breeding. Of 57 plovers banded in January 2010, 37 have been spotted in areas as diverse as North Carolina, Massachusetts, Cape Breton and Newfoundland. Knowing the locations plovers use for breeding, migration and wintering will help Canada work with other jurisdictions to effectively protect plovers throughout their entire life cycle.

The oil spill ongoing in the Gulf of Mexico may have a strong negative impact on the Atlantic population of Piping Plovers. Many plovers migrate through or overwinter in areas affected by the spill. Because plovers feed areas from late April to late August, and nest on sandy on small crustaceans found at the water's edge, they may ingest oil or become oiled themselves.

The United States Fish and Wildlife Service is planning to band Piping Plovers and take blood samples of populations track survival rates of plovers and monitor for exposure to toxins. The oil spill is expected to most strongly impact the This past winter, Canadian Wildlife Service biologists trav- prairie population of plovers, which migrate through areas currently showing highest oil concentrations.

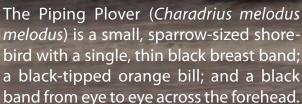
- Emily Herdman

Keep pets under control and on a leash.

- Protect natural beach features such as dunes and plants by staying on marked trails and boardwalks, and restrict beach clean-ups for times when plovers are not present.
- Dispose of garbage and food properly to avoid attracting plover predators, and do not feed wildlife such as crows, gulls and foxes.
- Avoid using fireworks or having bonfires, parties, and sport tournaments on beaches used by plovers during nesting season.

If you see any Piping Plovers, please report them to the Wildlife Division. Plover Guardians and government staff make frequent visits to beaches where Piping Plovers nest. Contact: Wildlife Division (709) 637-2026.

IDENTIFYING PIPING PLOVERS:









You Can Help Piping Plovers

- Obey signage restricting off-road vehicle (ORV) use on beaches. - If driving on beaches open to ORV use, stay on wet sand as much

as possible, and stay on trails to avoid disturbing habitat and

- Pay attention to Piping Plover signs indicating their presence on beaches and areas that may be closed to protect nesting plovers.

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Introduced moose

feeding in a bog or grazing by a busy roadside is so familiar on the Island of Newfoundland, it's hard to believe these animals weren't always a part of our landscape.

Although moose are native to Labrador, they were introduced to Newfoundland when the island was still a British colony. The first attempt to bring moose to Newfoundland as a potential source of meat occurred in 1875. One male and one female moose were captured in Nova Scotia and released near Gander Bay in an effort to start a new moose population on the island.

The moose did more than survive the arduous journey east - populations have thrived on the island since then, with numbers reaching approximately 125,000

> Newfoundland's forests and bogs proved to be ideal habitat for moose. With powerful bodies and long legs enabling them to cover rough terrain, moose quickly became one of the island's most successful wildlife populations, with generations of Newfoundlanders and visitors enjoying an annual moose hunt that has become part of our heritage and





John Connell was also known for his pet moose "Tommy," pictured here wearing a bridle.

A second, more successful introduction occurred in 1904, when John Connell of Bartibog, New Brunswick led the effort to bring live moose to the island. Connell was a well-known hunter and angler in the Miramichi area of New Brunswick who had a way with animals - he had tamed a moose he named "Tommy" that he could saddle and ride.

In March 1904, Connell and a team of seven men located a colony of thin, antlerless moose, weakened from the harsh winter conditions. The men lassoed six animals, tethered them to their horse-drawn sleds, and led them 10 miles to Chatham. From there they were shipped by train to North Sydney, Nova Scotia. Two moose are believed to have died on the trip, but six were loaded onto the SS Bruce bound for Newfoundland, and sent via train to Howley, where they were finally released in May.

Welcome to Labrador

In 1953, the Newfoundland government followed up on the success of the moose introduction to Newfoundland with another ambitious project to bring more moose to Labrador.

Although moose are native to Labrador, they were not common in the southern region. Twelve moose from the Humber Game Reserve, an area near Cormack that was protected from hunting, were trapped and corralled, and taken to Hampden. From there, the moose were transported by ship to St. Lewis Sound in southern Labrador and released at the mouth of the St. Lewis River. A short film titled **Moose for Labrador** was produced, documenting the project from catch to release.

Archival photos of the 1904 moose capture in Bartibog, New Brunswick, for transport to Newfoundland are from a collection belonging to Steve Bishop of Dieppe, New Brunswick and published in Men of the Autumn Woods: Non-Resident Big-Game Hunting in New **Brunswick** by research biologist Gerry Parker.

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Grand Codroy Estuary:

Local people have long recognized the Grand Codroy Estuary as a significant breeding and staging area for hundreds of bird species. As far back as 1974, local residents requested closing the Grand Codroy Estuary to hunting.

Following this no-hunting designation, the Canadian Wildlife Service and the provincial Wildlife Division made a joint request to the International Union for the Conservation of Nature to declare the estuary as a "Wetland of International Importance." On May 27, 1987, the Grand Codroy Estuary became the first wetlands area in the province to be so declared under what is known as the Ramsar Convention. The Wildlife Division manages and monitors the Ramsar site. As part of this responsibility, the division developed the

Grand Codroy Estuary Management Plan in 1995, outlining management and enhancement strategies for maintaining wetland and wildlife values within the estuary.

As part of conservation plan, Eastern Habitat Joint Venture (EHJV) partners – specifically the Wildlife Division and the Nature Conservancy of Canada – have purchased several privately owned properties within the estuary to protect them from development. Additionally, a number of individuals who owned private land within the Ramsar site have signed "Good Steward Agreements" and voluntarily manage their land for the benefit of wildlife. Landowner stewardship agreements do not result in landowners losing control over their land; landowners agree to act as good

stewards of their own land and manage it for the benefit of wildlife found therein. The Wildlife Division offers advice and answers requests from landowners on "wise use" of the land, and determines whether certain activities could be harmful to wildlife habitat.

In 2009, participating landowners were approached again to determine the status of their land and see if they were interested in renewing their agreements. In May of 2010 landowners Calvin Cormier, William Bruce, Richard O'Gorman and George Anderson renewed their landowner stewardship agreements at a small signing ceremony at the Codroy Valley Wetlands Interpretation Center, coinciding with the opening of the Feather and Folk Festival in the Bay St. George region.

As is true of many wetlands, a significant diversity of species is found within the Grand Codroy estuary. At the May 2010 agreement signing ceremony, a fifth landowner, Cyril Dubourdieu, signed a new stewardship agreement, in this case protecting another type of wildlife on parcel of private



Stewardship biologists Heather Chaffey and Charmaine Barney with Cyril Dubourdieu at the May 2010 landowner stewardship agreement signing ceremony in the Codroy Valley.

land found to contain an extremely rare lichen only found in Canada within NS, NB and NL. This property represents the only site found in NL to contain the Wrinkled Shield Lichen (*Pannaria lurida*), discovered there in 1956 by Dr. Teuvo Ahti, a botanist from the University of Helsinki in Finland.

- Jonathan Sharpe

The Ramsar Convention in Action





The Wildlife Division's Stewardship Program develops cooperative agreements with international, national, provincial and municipal governments; non-government organizations; industry; and others to deliver stewardship initiatives that conserve our natural heritage. Many agreements have been signed in the context of the Eastern Habitat Joint Venture (EHJV), which seeks to protect, enhance, restore and, if necessary, directly secure important habitat for waterfowl and other wildlife.



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Hunter Questionnaires & Game Jawbones:

An Important Part of Big Game Management

You have just harvested your first moose, the licence return questionnaire is complete, and the jawbone is ready to bring to the jawbone collection site. Ever wonder what happens to your big game questionnaire and jawbone after you send it to the Wildlife Division?

Information gathered from hunter li- stags/bulls. Historical charts are updated cence returns and jawbones is very im- with the new statistics for the most reportant in managing big game cent year. The data is analyzed, through populations in our province.

Newfoundland & Labrador hunters who successfully obtain a big game licence are required to complete and return the big game licence questionnaire within



vested, or within one week after the of- not been surveyed for some time. ficial closing of the season if their hunt was unsuccessful. The questionnaire Hunters are also required to submit caricontains information such as success of hunt, method of travel, sex and age of Division. The Division also requests that kill, date and location of kill, number of bear hunters voluntarily submit skulls antler points, number of days hunted, with the jawbone intact for research and number of moose/caribou and black and monitoring purposes. When a jawbear seen. All questionnaires received bone is deposited in a jawbone collecby the Wildlife Division are entered into tion site, it is taken to one of the Wildlife a database. Non-responsive licence Division labs located in Corner Brook holders receive a reminder letter, usu- and St. John's. ally by the end of March.

During early to mid-summer, the statis- cians take jawbone meastician analyzes the data. For each moose urements and remove and caribou management area, and for incisor teeth for aging. each licence type, descriptive statistics Jawbone measurements are calculated. This includes percentage include total length, diof successful hunters, number of astema length, molar row moose, caribou or bears observed, num-length, and an estimate of ber of days hunted, number of licences cheek tooth wear. sold, percent calves and percent

time, to determine the trends occurring

for each area. These trends, along with population census data, enable big game biologists to determine the appropriate quota allocation and the licence type allocation for each management area. Trend data plays a critical role in determining these quota allocations, especially in areas that have

bou and moose jawbones to the Wildlife

Trained laboratory techni-

The extracted tooth is sent to Matson's lab in Montana for processing, after which an accurate age of the animal can be determined by microscopic analysis of incremental growth layers (cementum annuli). This process is analogous to counting annual growth rings in trees to estimate age. The data is then entered into a database and analyzed.

Body size trends (jawbone length is highly correlated with body size) and age demographics, which have an important influence on change in population size, can be determined from these submissions. For example, observing a decline in the youngest age classes, through time, can be indicative of declining recruitment (the number of young that survive to breeding age). Declining recruitment in a particular species can lead to a decline in its population levels.

The Wildlife Division is grateful to the hunters of Newfoundland big game for providing this invaluable information for wildlife research and management. With the continued cooperation of hunters, the Wildlife Division is committed to ensuring this valuable resource exists for generations to come.

- Glenn Luther, Barry Adams



Insular Newfoundland

Hunters with Either Sex License

■ Licenses → Moose Seen → Days Hunted → Adjusted Success

News from the Wildlife Division Summer 2010



Towto Hunt Predator Workshops



How to Hunt/Trap workshops offer participants the opportu-

nity to learn about basic coyote and black bear biology and behavior, their interactions with other wildlife, and an introduction to predator hunting and trapping techniques.

How to Hunt Coyote workshops were held in numerous locations including Corner Brook, Carbonear, Marystown, St. Anthony and St John's. These workshops are generally filled to capacity because of the enormous interest in this relatively new and exiting hunting opportunity. The workshop presents information on coyote biology and behavior and how coyotes arrived in our province, as well as tips and ideas about choosing appropriate firearms and field equipment that will improve hunting success.

Hunting site selection and calling techniques are two important topics covered in these workshops. Coyotes have excellent hearing, remarkable eyesight, and can smell things kilometers away. Knowing how to avoid being spotted by a coyote while hunting can offer a hunter a good chance for success. Calling demonstrations using hand-held and electronic calls are used to give participants a better understanding of sounds that lure coyotes into effective shooting range.

Hunt to Hunt Black Bear workshops have also been held in Clarenville, Plum Point, Grand Falls-Windsor, Deer Lake and St John's. During the black bear workshops there is ample opportunity for information sharing, allowing more seasoned hunters to pass tips and information on to less experienced individuals in attendance. Similar to other workshops, the first portion of the presentation is focused on black bear biology and ecology, as well their interactions with other wildlife and humans.

Black bear hunting can be very challenging and rewarding. The workshop covers topics and demonstrations for bear-hunting techniques that involve spot and stalk, baiting, and calling. Hunting site selection, use of attractants and bait, and tree-stand setup and safety are covered, providing novice and seasoned hunters with new ideas for black bear hunting. The workshop also demonstrates basic introduction to proper skinning of black bears hides, and offers recipes for black bear meat, a healthy and nutritional game meat.

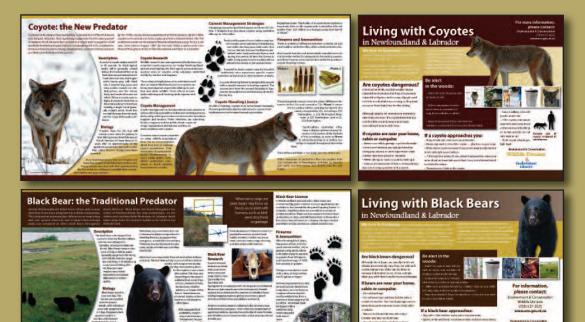
Each workshop is followed up with a survey questionnaire designed to gauge participant views and to determine whether the workshop encouraged individual involvement in coyote or black bear hunting. So far responses are very positive with 98% stating they were satisfied or very satisfied with the workshop; 53% of attending hunters used

methods and equipment they received from the workshops, with 79% claiming to have moderate or good success, and 98% of the attendees would recommend the workshops to others.

Upcoming Events: Scheduling for fall and winter *How to Hunt Coyote* workshops tentatively include events for Codroy Valley, Baie Verte, Springdale, Bishop's Falls, Gander and Mount Pearl. A series of *Advanced Coyote Trapping* workshops is being planned for late fall in select areas.

For further information or to express interest in attending these events, please contact the Stewardship and Education Section of the Wildlife Division in Corner Brook at (709) 637-2730/2009 or email nathanspence@gov.nl.ca

- Nathan Spence, Chris Baldwin



Publications about predator habits, biology, ecology, and harvesting techniques are available from the Wildlife Division.

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Enhanced brush clearing efforts, highway signage, an ongoing moose awareness campaign, and continued analysis of moose-vehicle collision reduction are strategies aimed at improving highway safety and reducing the instances of moose-vehicle accidents on the province's highways.



Big game hunters, tourists and nature watchers are usually anxious to spot a moose, but on Newfoundland and Labrador's roadways, these animals can pose a risk to motorists' safety.



About 125,000 moose live on the Island of Newfoundland, and most of our highways go through good moose habitat. A driver can expect to encounter moose while travelling on any section of the Trans-Canada Highway (TCH) or on any secondary roads.

Moose are unpredictable

A moose standing calmly

at the edge of the road could bolt in front of your vehicle

at the last moment. If you see a moose on or near a road, slow down and prepare to stop. Like all wild animals, moose are unpredictable.

Where & when do accidents occur?

More than 70% of moose-vehicle accidents occur Jason Foste between May and October. The likelihood of injury is twice as high between dusk and dawn, when driver visibility is limited and moose are most active.

Be cautious when driving at night

If you see a vehicle stopped on or near the highway, the driver may have spotted a moose, so be cautious. Avoid driving at night if possible, and if you must drive, slow down. Moose are extremely difficult to see at night.

Scan both sides of the road as far ahead as possible, especially in high-risk accident zones depicted by warning signs. The best way to avoid an accident is to spot the moose well in advance.

Many provincial roadways run through

areas of prime moose habitat. Moose are attracted to roads and use them to:

- feed on roadside vegetation
- gain relief from flies in open, windswept areas
- travel out of deep snow in winter
- move from one part of their habitat to another
- access road salt

Watch for Signs

Known high-risk areas on the province's roadways are marked with several types of warning signs. A road sign like this one means moose frequently cross the road in the area.

Seatbelt use is mandatory in Newfoundland and Labrador. Vehicle occupants who do not wear their seatbelts are eight times more likely to be seriously injured or killed in a moose-vehicle collision.

Avoid an accident

Moose on the right side of the vehicle are

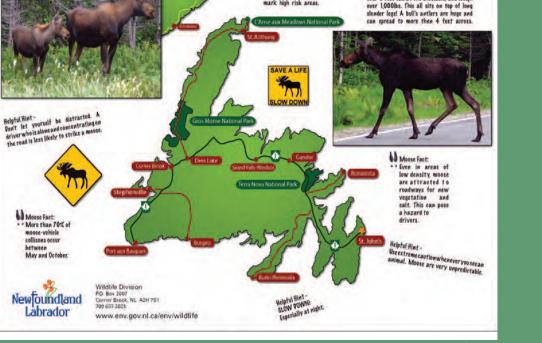
avoided more often than those on the left because drivers focus more on the right. It is important to scan both sides of the road.

Don't let yourself be distracted. A driver who is concentrating on the road is less likely to strike

Keep your windshield and headlights clean. Drive with your headlights on high beam unless approaching, or overtaking, other traffic.

REDUCE YOUR SPEED, especially at night or during conditions when visibility is poor

For more information, please contact the Wildlife Division at (709) 637-2025 or visit www.gov.nl.ca





News from the Wildlife Division Page 7 Summer 2010



Kassidy, Kacey and Keira Hammond present their cheque in the amount of \$393.71 to Elizabeth Dawe, coordinator for Friends of Salmonier Nature Park.

Most children planning their birthday parties focus on what their special day will bring – time with friends, cake, games and of course, lots of presents.

Three young sisters from Torbay had a different vision when they planned their birthday party in June. Keira, Kacey and Kassidy Hammond all celebrate their birthdays in the summer. Keira is nine on July 16; Kacey is seven on July 22 and Kassidy turns eight on August 2.

Every year their mom, Wanda, plans one big birthday party for all three of them. This usually means inviting more than 100 children to help celebrate. This year, their party was held at the Flatrock Community Centre, with entertainment by Wonderbolt Circus, lots of fun, cake, and 77 friends!

Instead of having their guests bring gifts, this year the girls decided to ask for a small monetary donation for Salmonier Nature Park. The girls, along with their mom and dad, visited the park on Sunday, June 20, and presented a whopping cheque in the amount of \$393.71, their birthday money, to the Friends of Salmonier Nature Park.

Three special sisters, one big gift

When asked why they chose Salmonier Nature Park, Wanda said their family had participated in a behind-the-scenes tour as part of a special event at the park last year. Participating in the tour made them realize just how important the nature park is for the rehabilitation of injured and abandoned wildlife in the province. They were amazed at everything that goes on behind the scenes and felt a connection to the park and its wildlife. The experience left them wanting to do something for the park and they thought donating their birthday money would help the park, while creating awareness among their friends.

Salmonier Nature Park staff are thrilled by the initiative of these young girls and their parents. The girls exhibited such excitement over helping the park and presenting the cheque, but more importantly, they demonstrated a sense of responsibility for nature and wildlife that was nurtured by their visit to the park the previous summer. Thank you, Keira, Kacey and Kassidy!

- Brenda Pike

Thank you to everyone who contributed to the content of our newsletter. This newsletter would not be possible without the extensive field work, data analysis, mapping and other tasks performed by our very dedicated staff.

The mandate of the Wildlife Division is to protect and conserve Newfoundland and Labrador's biodiversity and manage its wildlife and inland fish resources for the benefit of present and future generations. To deliver on this mandate requires an incredible amount of work, both in the field and at the office. It is our hope that these newsletters will provide a snapshot into the work of the professionals who are striving to fulfill this mandate, and to highlight the complex nature of wildlife research and management.

Our Wildlife

is the quarterly newsletter of the Wildlife Division. For more information, please contact:

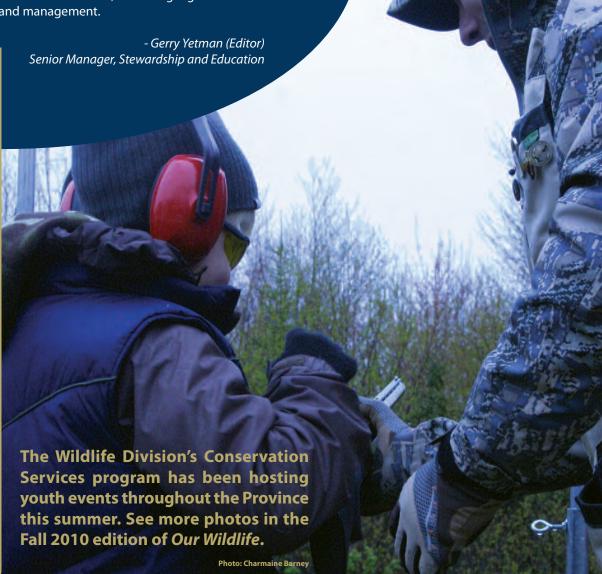
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Wildlife Division



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