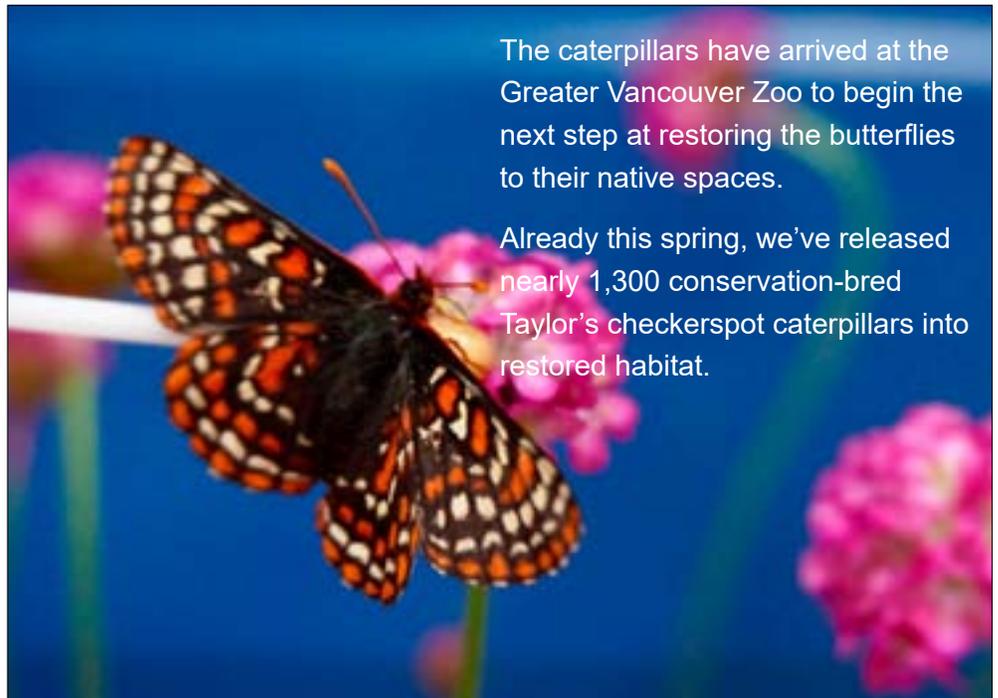


Caterpillars to Butterflies

Following the successful releases last spring of over 300 Taylor's checkerspots on Denman Island, British Columbia, we knew our conservation breeding program of this endangered pollinator required more space. So, in early April, our team transported the checkerspot caterpillars by ferry from Denman Island to Greater Vancouver Zoo, where they were transferred to their new breeding facilities.

Once widespread in areas of Vancouver Island and surrounding islands of B.C, as well as areas of Puget Sound, Washington and Oregon, the Taylor's checkerspot butterfly appeared to have been permanently lost from Canada, until 2005 when it was observed on Denman Island. By 2014 fewer than 25 wild sightings were reported and it was feared that the butterfly population was on the brink of dying out. Determined not to waste this lucky second chance to save the Taylor's checkerspot, a group of local volunteers, provincial authorities and Wildlife Preservation Canada teamed up to take action.

Once relocated to the zoo, the caterpillars have become butterflies, and will begin breeding. The eggs that result will grow another generation of Taylor's checkerspot butterflies, ready to build the dangerously low numbers in the wild.



The caterpillars have arrived at the Greater Vancouver Zoo to begin the next step at restoring the butterflies to their native spaces.

Already this spring, we've released nearly 1,300 conservation-bred Taylor's checkerspot caterpillars into restored habitat.

Inside This Issue

Tracking the Shrike

Canada's New Noahs

Pollinators, snakes & swallows

Learn more about our work to save these and other at-risk pollinators. Follow us at wildlifepreservation.ca





WILDLIFE PRESERVATION CANADA

Established in 1985,
Wildlife Preservation Canada is a non-profit charitable organisation dedicated to saving critically endangered wildlife species from extinction.

Founder
Gerald M. Durrell OBE

President
Ian Glen

Vice-President
Chris Boynton

Secretary
Pinar Ozyetis

Treasurer
Shripal Doshi

Board of Trustees
Christopher Boynton

Jay Bryant

Shripal Doshi

Ian Glen

John Grandy

Douglas Hart

Stephanie McLarty

H. Alec B. Monro

Pinar Ozyetis

Bridget Stutchbury, PhD.

Honourary Trustees
Louise Gervais

Kathryn B.P. Dempster

Graham F. Hallward

Anson R. McKim

William Noble

Richard Fyfe, OC

Thomas C. Sears

Eleanor R. Clitheroe

W. Paterson Ferns

Stephen T. Molson

William E. Stavert

Lee Durrell, PhD.

Executive Director
Randal Heide

Contact us at:

Wildlife Preservation Canada
RR #5, 5420 Highway 6 North

Guelph, ON N1H 6J2

Tel: 519-836-9314
1-800-956-6608

admin@wildlifepreservation.ca
wildlifepreservation.ca

(Reg. #89171 0535 RP0001)

Letter from the Executive Director

Some days I'm just not sure how to feel about my job.

As you see here, the beauty and variety of the species we work with is stunning, and the enthusiasm of our people is uplifting. Yet the very fact that Wildlife Preservation Canada must exist; that the work we do is so essential, is sobering. And there's no quick fix to the problem. Long after I've left this job - indeed, long after I'm gone - this work will continue to be needed.



Yet, I am optimistic. The techniques we use are proven to work. Some species, such as the swift fox, no longer need our help, and others will surely turn the corner as well. Every year, our scientists learn something new, and refine their techniques. They will continue to get better at what they do. And hopefully you, and the rest of the small army that stands behind them, will not lose faith. Future generations won't take nature for granted, as most humans (including, perhaps, some of us) historically did. They'll have even more knowledge, plus better technology, going for them. Let's make sure we leave them as much as we can to work with.

Randal Heide

Don't miss out! Get all the news from the field on our teams' efforts to save endangered species. Sign up for our newsletter and follow the blogs at www.wildlifepreservation.ca.

The Legacy of Carl Jones



Professor Carl Jones, an inspiration to many of our Canada's New Noahs over the years, has just been awarded the 2016 Indianapolis Prize, a prestigious biennial conservation award.

Currently the Chief Scientist of our sister organization, the Durrell Wildlife Conservation Trust, and also Scientific Director of the Mauritian Wildlife Foundation, he has demonstrated that there is always hope; that species can be pulled back from the brink even if there are only a few individuals left. He made this hope a reality, saving several species from extinction, including the pink pigeon and echo parakeet. Carl truly pioneered and demonstrated the success of conservation breeding and reintroduction techniques - techniques our recovery teams are using here in Canada today.

Eastern Loggerhead Shrike

To save a shrike, you have to track a shrike

Figuring out where Ontario shrikes go when they migrate and how they get there is a high priority for eastern loggerhead shrike recovery, since evidence suggests that the main challenges to survival occur during migration and on the wintering grounds. This year we will be focused on using radio tags to track shrikes, using the Motus system.

The Motus Wildlife Tracking System is a growing network of radio telemetry towers designed to detect animal movements. One of the major benefits of radio tags is that birds do not have to be recaptured for data collection, which is required for some other types of tags. Each tagged bird has a unique signal that is automatically picked up by Motus, so that real time data can be collected on any bird that passes a tower.

In fact, we have already collected data on the movements of six shrikes released last fall! All were released from our Napanee field site (owned by the Nature Conservancy of Canada), and have travelled both east and west around the Great Lakes. Why did some shrikes take the long way around? Where will they end up? These are just two of the questions we hope to answer as more data are collected.



Species Conservation Biologist Hazel Wheeler, shown here, leads Wildlife Preservation Canada's efforts to save the eastern loggerhead shrike, a unique songbird which hunts like a hawk. Though once plentiful from Manitoba to Quebec, its numbers have plummeted to only a few dozen in the wild in just a handful of locations in Manitoba and Ontario.

Wildlife Preservation Canada is leading the conservation breeding and release program in Ontario to save the shrike. Our partners, Mountsberg Raptor Centre, Toronto Zoo, African Lion Safari and the Smithsonian Conservation Biology Institute, house breeding pairs producing fledglings for release to the wild. Evidence has shown that these conservation-bred birds learn to hunt, migrate and return to the traditional breeding area.

ENDANGERED





It's spring - welcome bumble bees to your garden!

- Build a bee house. Provide a box (not cedar) about the size of a milk carton. Fill the box with nest tubes purchased from a garden centre or make your own. Paint the box a vibrant colour with exterior, zero-VOC paint and hang in a sheltered location. Provide moist clay nearby for the bees to use as construction material. Be patient... it may take time for them to move in!
- Plant a vibrant garden with native flowers to attract native bumble bees.
- Make sure you plant a variety of flowers that bloom throughout the year.
- Avoid pesticides

Plants that attract bees

- | | | |
|-------------------|--------------------|-------------------|
| • Service Berry | • Hyssop | • Bee balm |
| • Dogwood | • Sunflower | • Phlox |
| • Wild strawberry | • Bergamot | • Cardinal flower |
| • Wild geranium | • Black-eyed Susan | • Coneflower |
| • Violet | • Goldenrod | • Joe Pye weed |



Native Pollinators

Growing bumble bee colonies

To address the crisis of disappearing wild bees, Wildlife Preservation Canada is establishing breeding colonies of yellow-banded bumble bees at a specially designed facility in partnership with York University in Toronto.

Surveys for queens took place in early spring, before they began colonies in the wild. The queens are brought to the breeding facilities, where they are already laying eggs.

While it can take up to a month or so to get from eggs to workers, Pollinator Recovery Biologist Victoria MacPhail reports, “I am very heartened by the success we have been seeing already. We should hopefully have our first workers in the next couple of weeks.”

Once breeding colonies producing mated queens are established, queens can be released in the fall to quality habitat, so they can overwinter and establish new colonies in the spring.

Do you know your bee facts?

- Not all bees are honey bees, and honey bees are not native to Canada.
- There are 45 species of bumble bees and about 800 species of bees native to Canada.
- These wild bees do not necessarily live in colonies like honey bees; many are solitary bees which nest in the ground, though they have been known to nest in all sorts of places including empty snail shells.
- Wild bees are experiencing alarming declines. Some species of bumble bees, like the rusty-patched, once had an extensive range in Canada but in recent surveys have been completely absent.



Massasauga Rattlesnake

Off to a great start

The massasauga rattlesnake has been eliminated from much of its original range in Ontario, leaving only a few isolated populations. We have two recovery teams working on different strategies in these areas studying different strategies but with the same result in mind - saving this unique at-risk snake.

The critically endangered Ojibway Prairie Remnants massasaugas are at risk of imminent extinction. Our recovery team there is carefully capturing individual snakes, recording data and implanting small microchips, similar to those used for dogs and cats, to track their movements. The team is also reducing the danger of road mortality by installing fences that safely funnel snakes, turtles, and other wildlife through culverts to the other side of the road.



Marking, releasing and recapturing the Massasauga rattlesnake provides vital information to guide the recovery program. Field technician Mike Bagnall (left) and field biologist Eric Jolin (right) with the first Ojibway Massasauga of the season.

Further north along the Georgian Bay shoreline, our other massasauga team is now monitoring snakes as they emerge from hibernation, and will be trying to learn how to successfully translocate them out of the way of development. Our past research has shown that adults are extremely committed to their preferred hibernation site.

Bank, barn, cliff and tree swallows

Disappearing birds of the Maritimes



Swallows, and other aerial insectivores (birds that feed almost exclusively on flying insects while in flight) are exhibiting greater declines than any other group of birds in North America. In flight, they have a distinctive “arrow-like” shape which many people will recognize, but which is sadly disappearing.

Investigating the cause of the declines, the recovery team has studied the abundance of the flying insects the swallows eat, and their

breeding success. This year, the team will concentrate on other factors that can affect populations, including stress levels during winter which can impact migration and nesting.



Save animals - become a Wildlife Guardian



Every year, more of our wildlife is threatened with extinction. Wildlife Preservation Canada has over 35 years experience saving endangered species both in Canada and overseas.

Our approach is proven to work.

We invite you to join a very special group to help us continue this important work.

Become a Wildlife Guardian.

By donating monthly, you reduce our costs, so that even more of your donation goes to work saving the animals that need your help the most.

Simply make your wishes known below.

The animals thank you.

YES, I want to save Canada's endangered birds, turtles, insects, mammals, frogs, toads & snakes!



With my contribution of:

\$60.00 \$80.00 \$100.00 \$120.00 Other _____

I wish to contribute by Cheque Mastercard Visa

Card # _____ Expiry _____ Signature _____

I wish to become a Wildlife Guardian!

SN16

With my **monthly** contribution of:

\$5.00 \$10.00 \$15.00 \$20.00 Other \$ _____

I am enclosing a cheque marked VOID for the account from which I authorize Wildlife Preservation Canada to receive the amount indicated on the first day of each month. I understand I will receive a tax receipt for the full amount at the end of the year. I understand that I can change or cancel my agreement at any time by phoning or emailing admin@wildlifepreservation.ca

Please send me e-news:

Email Address

We sometimes trade names with like-minded organisations. If you do NOT wish to receive their mailings, check here



Canada's New Noahs - Laura King

Conservation Adventures in Mauritius



Laura King, native of Ontario with an MSc in biology from McMaster University and recent resident of Newfoundland, was selected to experience the hands-on training that is Canada's New Noahs scholarship program.

"I've been pretty wildlife obsessed as long as I can remember," Laura stated, "but most of all I wanted to make a difference and I feel that this work in Mauritius is an incredible way for me to put this into action."

On the island of Mauritius, Laura reports that there are geckos and giant snails in abundance and exotic birds she has never seen before. Over the next few

Every year since 1990, Wildlife Preservation Canada has selected a Canada's New Noah. This competitive scholarship offers one lucky young Canadian biologist a life-changing opportunity to work with some of the most endangered species in the world under the tutelage of some of the world's top experts. The New Noah travels to the island of Mauritius, home to not only the ill-fated dodo, but also luckier species such as the pink pigeon, echo parakeet and Mauritian kestrel, all three of which were brought back from the very brink of extinction by recovery programs in which Canada's New Noahs participated. Graduates of the program have gone on to make an impact in conservation across Canada and the world.

months, she and other participants of the post-graduate diploma program will study the ecology of small populations and endangered species recovery techniques.

As Laura's blog states, they will be putting their new knowledge to work in field placements in projects working with endangered lizards, snakes, pink pigeons, kestrels, parakeets, small passerine songbirds and fruit bats, as well as invasive species like shrews which threaten the native wildlife of Mauritius.

Like New Noahs before her, she travelled to Round Island, just off the coast of Mauritius, to participate in the decades-long restoration project, planting native trees and surveying for rare birds, snakes, and the Aldabra giant tortoise, shown above.

Laura encapsulates the spirit of the Canada's New Noahs program when she says, "I think about what it means to be here, and about what I'm going to do when I go back, so that everything I've worked on here and learned along the way gets put into practice to help save places like this."



Project Update

Wetland wildlife of the Fraser Valley

Quod-copter drones equipped with cameras and wi-fi transmission are being used to survey for **Oregon spotted frogs** and other amphibians, allowing great access with minimal disturbance to habitat. Elsewhere, mark recapture studies and egg collections for the head-starting program are taking place.



ENDANGERED



The breeding population of **western painted turtle** at the Greater Vancouver Zoo is awaking from hibernation while the recovery team removes the invasive plants from a key wild nesting site. The rains there had put three nests at risk, so they were evacuated and the young placed in headstarting protection until it warms up enough to release them.

ENDANGERED
(Pacific population)



Wildlife Preservation Canada
RR #5, 5420 Highway 6 North
Guelph, ON N1H 6J2