



Photo by: Elsa Trillat

## Jane Urquhart: Internationally-acclaimed author and International Ambassador to *rare*

In 2005, Jane Urquhart was named an Officer of The Order of Canada, making it official: she is one of this country's most beloved and celebrated writers.

Her connection with *rare* is one that gives her great pleasure and a corresponding sense of responsibility. "I think it's so important that the *rare* lands be saved," she said one day recently over lunch in Stratford where she and her artist husband, Tony Urquhart, make their home. "I think we forget how important it is to have some landscape that doesn't change."

Urquhart's novels are rooted inextricably in a sense of place. The landscapes of her writing – often the forests and the lakes and the pioneer farmsteads of southwest Ontario – act not merely as a backdrop to her epic tales but become central characters in the storyline. And just as her human actors are susceptible to the tides of history, so too is the landscape they inhabit.

*"I am put in mind of something I once read in the travel journals of Samuel Champlain. When he sailed into Lake Ontario, he was so struck by the beauty of its northern shoreline he commented that the tall greenery of the trees appeared to be garden-like, as if the foliage had been planted for decorative purposes. This is a panorama that none of us will ever be able to see."*



Photo by: Peter Kelly

Urquhart's sense of loss from a changing landscape is also very personal. Each summer she returns to the summer cottage on Lake Ontario that her parents first bought in 1943. Now, more than sixty years on, the commercial lake fishermen she watched as a child from the shoreline and the surrounding pioneer farms where she and her brothers played have disappeared, sacrifices to twentieth century 'progress.'

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Masthead Photo by: Martha Gay Scroggins. Inside This Issue Photo by: Heather Wilson

The story of this experience is related in detail in an article Urquhart wrote for the Toronto Star earlier this year. In it she says, "Orchards, lovingly tended for almost two centuries, were slashed and burned, beautiful cathedral-like barns with memories of the virgin forest still in their beams, were bulldozed. Woodlots and their feathered inhabitants vanished."

Yet, even in these circumstances, the need for a landscape to call one's own persists.

"We continue to swim in the water, and float over its surface in boats. We watch sunsets and squalls develop, listen to the surf all night long, and, now and then, a fleet of tundra swans will sail regally past. Sometimes we walk up the beach and the children build castles. We collect the plastic that has floated down from the urban centres and take it back to our recycling bins. We try not to let the birds we sometimes see dying on the shoreline ruin our summer completely."



Photo by: Heather Wilson

But these modern depredations pale when compared with the first great environmental disaster that visited the shorelines of Lake Ontario, as described by Champlain more than a hundred years ago - the rapid and extensive clear-cutting of the Carolinian virgin forest.

"The remnant old-growth Carolinian forest at **rare** is truly a treasure." And for Urquhart there is also a cultural and historic memory triggered by **rare's** efforts to save the Slit Barn: in the 1840s, just as her family was escaping the Irish famine and moving to Canada, other farmers were building the limestone slit barn that now sits on the **rare** property.

In an interview with edgy, up-beat *January* magazine, Urquhart related the story of her family's emigration to Canada: "... they moved to what was then considered to be the Northern part of Ontario: north of Belleville. And after that came total wilderness. It's actually a wonderful part of the world. There's a beautiful poem written about it by Al Purdy called "The Country North of Belleville" because it was such impossible country to farm that they gave it to the Irish. [Laughs] Anyway, they moved there and became part of a community and there was only one church and that church was Protestant. So they joined it. And that was the end of any connection with the relatives back in Ireland. It was over. Like selling out." (<http://januarymagazine.com/index.html>)



Photo by: Larry Lamb

Urquhart's descriptions and musings challenge each of us to ask how the landscape around us can be an inspiration. Maybe there's a special viewpoint which belongs to you alone, or a secret forest trail down which you once trod, or an ancient well-remembered tree which has come to stand as a fingerpost or way-marker pointing back along Blair Road towards a long-lost childhood.

Perhaps, like Urquhart, you also want to ensure it points toward the future so that your grandchildren have a chance of seeing the same way-marker.



## About Jane Urquhart:

Urquhart's first novel, *The Whirlpool*, was also the first Canadian book to receive *Le prix du meilleur livre étranger* (Best Foreign Book Award) in France. The Literary Review (UK) called her next book, *Changing Heaven*, "An accomplished novel which boldly explores new ground." Urquhart's third novel, *Away*, remained on the Globe and Mail Bestseller list for 132 weeks (the longest of any Canadian book). It also won the Trillium Award for fiction and was a finalist for the prestigious International IMPAC Dublin Literary Award. The *Underpainter*, Urquhart's next novel, won her the Governor General's Award for Fiction. *The Stone Carvers*, perhaps Urquhart's most famous work, was called "breathtaking" by TIME, was nominated for The Giller Prize and long-listed for The Booker. Her most recent novel, *A Map of Glass*, was released in the fall of '05.

Urquhart is also the author of a collection of short fiction, *Storm Glass*, and three books of poetry. She received the Marian Engel Award in 1994 for an outstanding body of prose written by a Canadian woman, and is a Chevalier dans l'Ordre des Arts et des Lettres in France. She has also been given numerous honorary doctorates from Canadian universities.





WILLOW FLYCATCHERS have increased in number within riparian habitat along the Grand River at **rare** according to Andy Steinberg. During 2007-09, Andy is conducting breeding bird surveys on the Reserve by repeating the monitoring protocols used in 2001 by Bill Wilson. A report of Andy's findings will be available in Fall 2009.

In June, Paul Kron spotted a BLUE-GRAY GNATCATCHER nest in a cherry tree on the Alvar at **rare**. Also, this summer, Paul located a MACKAY'S BRITTLE FERN (*Cystopteris tenuis*). He commented that this fern isn't particularly uncommon but it's tricky to identify.

Jerry Guenther, Larry Hubble, Ruth Kroft and Bill Wilson initiated a long-term breeding bird study this past June and July to monitor changes in species composition and abundance on Reserve lands undergoing regeneration. All croplands were monitored by Wilson in 2001 for breeding birds. In one 10-acre site that has been fallow for two years, Jerry Guenther listed 8 species including 9 VESPER SPARROWS, 10 SAVANNAH SPARROWS and 3 SONG SPARROWS where only AMERICAN ROBIN, AMERICAN CROW, and 3 SONG SPARROWS and two aerial foragers, BANK and BARN SWALLOWS had been found in 2001. Savannah and Vesper Sparrows are breeding birds of Conservation Priority for the Regional Municipality of Waterloo; Vesper Sparrow is also a breeding bird of Regional Significance.



Savannah Sparrow  
Photo by: George Hentsch

On July 31 while checking out the crabapple plot in the old cornfield, Paul Kron describes: "I flushed 3 young WILD TURKEYS out of the long grass. They were just barely capable of flying up into the low branches of the trees along the forest edge. I suspect that there were more than 3, based on additionally crashing sounds from the weeds, I also glimpsed an adult pacing back and forth in the shadows under the trees, no doubt keeping an eye on the youngsters.

On August 13, Sharon Bowes along with Andrew Hunter saw two NORTHERN WATER SNAKES in the area of the Slit Barn.

Participants taking part in the mid-August **rare** Owl Prowl with Jason Bracey heard at least 2 EASTERN SCREECH-OWLS calling. The screech owl(s) were not only heard but also seen as participants were able to pick out the silhouettes of one flying by the group.

The **rare** OSPREY platform was visited by Osprey on several occasions this summer and early Autumn. Several observers made interesting observations: several reported observing Osprey placing sticks on the nesting platform; on August 17, 2008, two Osprey circled the platform, one carrying a fish – a prelude to the next breeding season? For the second year in a row, the pair nesting at the Fountain Street bridge upstream from **rare** fledged three young.

Jason Bracey observed a new species for **rare** while undertaking monitoring for the **rare** Birdbanding Station – 2 NORTHERN MOCKINGBIRDS sitting in the Ent-like tree at the junction of the Woodland Trail and the Grand Trunk Trail in the Cliffs and Alvar sector of the Reserve on August 30.

On September 7, participants on the **rare** Monarch Walk also saw three kinds of snakes during the outing, all in the area around the Slit Barn: a SMALL BROWN SNAKE, 2 MILK SNAKES and a GARTER SNAKE.

In early September, Leslie Work reported. "I saw a cicada killer wasp out back of the admin building. Cicada killers are very large wasps with an interesting natural history as they sting (thereby paralyze) cicadas to feed their young."

On September 20 participants on the *Exploring for Insects* outing found a LEAFY SPURGE HAWK MOTH CATERPILLAR. This insect has quite an interesting natural history, as it was the first organism introduced in the United States for the purposes of biological control of leafy spurge – although this attempt at control was unsuccessful.

Laurie St. Peter, a regular visitor and trail walker at **rare**, reports both eight-point and six-point bucks (WHITE-TAILED DEER) on the Reserve this fall.

In mid-September, Laurie St. Peter observed a RUFFED GROUSE along one of the trails – the only report of this species to date this year. Andy McKee, Ministry of Natural Resources, reported at the Kitchener-Waterloo Field Naturalists' meeting in October that in the last two decades, the Ruffed Grouse population in southern Ontario has declined 53%. This species nested at **rare** in 2003.

Several Friends of **rare** report hearing coyotes. Bill Wilson observed a large COYOTE with a healthy pelage on October 7. St. Peter's observations on the Reserve suggest to him that coyotes visit the Reserve on an eight-twelve week cycle.

John McDonald reports a possible EASTERN RIBBON SNAKE was seen along the edge of the farm lane beside the Springbank house. It made its way into tall grass without too much alarm when observers came upon it October 17.

For three weekends in October, Donna and Marco DeBruin and Bill Wilson monitored squirrels along the River Trail. They recorded a maximum of 17 EASTERN CHIPMUNKS, 8 RED SQUIRRELS and 7 GREY SQUIRRELS.

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## The Importance of Hedgerows *by Leslie Work*

Hedgerows are long narrow corridors of shrubs, trees, and wildflowers that separate farm fields. They are a welcome sight in Ontario's rural landscape, which has become dominated by large expanses of corn and soy. Hedgerows often develop along fence lines where berry-eating birds perch – and do their business. Their droppings disperse the seeds of typical hedgerow species such as buckthorn, service berry, chokecherry, hawthorn, wild grape and Virginia creeper. Raccoon, fox, and opossum also do their part by dispersing seeds of berries as well as seeds that 'hitchhike' by sticking to their fur. Old mature hedgerows are quite thick and lush, covered by vines and edged with wildflowers.

### Ties to Our Past

Hedgerows are not only picturesque, but provide important ties to our agricultural and cultural past. To fully understand their importance, we must consider what has happened to forests in the 200 years since European colonization. Currently in southern Ontario about 20% of our land consists of forests existing as patches or islands, of varying size (before colonization about 90% of the land was forested). Of these forested islands, 80% are under 3 hectares in size; for forest-dwelling wildlife, this island life isn't all it is cracked up to be. It amounts to being marooned. Just as the ocean is impassable for someone stuck on a desert island, the surrounding agricultural and residential lands pose an inhospitable barrier to the movement of wildlife.

### Safe Passage

This fragmentation of forest habitat creates isolated wildlife populations that are vulnerable to various pressures such as inbreeding (resulting from lack of gene flow between populations) and fluctuations in food supply. Fragmentation impairs emigration of wildlife from one area to another, so that if a species is experiencing population decline in a particular place, recruitment of new individuals to offset the declines may not occur. One of the most important

functions of hedgerows, then, is to provide safe passage along corridors connecting the patchwork of forests, benefitting biodiversity by providing a means for the natural movement and dispersal of organisms, both animal and plant.

Hedgerows can also serve as habitat for certain species – particularly edge species such as robins, blue jays, crows, chipmunks and gray squirrels. These species can tolerate high levels of disturbance, unlike forest 'interior' species, such as scarlet tanagers and ovenbirds – which can't. When hedgerows aren't too disturbed by the pesticides and fertilizers used on the fields on either side of them, they can be home to a diversity of invertebrates. Of particular importance is the role of hedgerows as habitat for pollinators such as wild bees, which are experiencing troubling population declines. Snakes are also inclined to make good use of hedgerows.

There are also several important agricultural and ecological functions for hedgerows. They reduce wind speed, (which reduces evapotranspiration and therefore soil desiccation and plant stress) and soil erosion. They can also reduce runoff of agricultural pesticides and fertilizers thereby reducing water pollution in ponds, creeks, rivers, meadows and wetlands adjacent to farm fields.

### rare's Role

Narrow hedgerows are less able to provide wildlife and agro-ecological benefits. For this reason, **rare** has increased the width of certain hedgerows by taking strips of land in the fields running adjacent to the hedgerows out of agricultural production. Natural regeneration proceeds quite rapidly in these strips, largely due to the abundance and diversity of seed already present. In some instances, tree planting has taken place to create buffer strips to enhance these benefits. With these measures, **rare** will be better able to function as a healthy landscape that provides for the complex needs of wildlife.



Photo by: Peter Kelly



Photo by: Peter Kelly

## GROUNDWORK: a Garden-Based Creative Collaboration

As this newsletter arrives in your mailbox, and some of us are putting our gardens to bed for the winter, an ambitious group of youth from Six Nations and Waterloo Collegiate Institute's (WCI) *Collision* group are anticipating a major year-long program out on the lands at **rare**.

Called, GROUNDWORK, and led by Render with partners: artist and curator Jeff Thomas (Urban Iroquois/Onondaga), Kyle Bishop of WCI and **proboscis** UK (see below), this project uses innovative and creative methods to encourage stewardship and constructive, positive dialogue rooted in a richer understanding of the land and related social/cultural history of the area.

The selected youth – all of whom have an existing commitment to environmental and cultural issues, as well as a willingness to engage in collaboration – will work with a mentoring group of artist/curators, educators and botanists/gardeners, to design, plan, cultivate and maintain a unique garden based on indigenous agricultural practice, incorporating complementary introduced species and methods.



This project has been made possible by funding from the Canada Council for the Arts, Ontario Arts Council and Canadian Art Youth Arts Bursary Program.

One of the most significant components of the planning phase is a proposed intensive design/planning session during the March Break. This will involve the partners and the mentor group and will include a series of creative workshops lead by RENDER's international partner **proboscis** (London, UK). Much of the creative activity will take place at the Springbank Farm Community Gardens on the **rare** site (**rare** is also providing expertise in gardening, botany and environmental studies). Sessions will also take place at the Woodland Cultural Centre and the UW School of Architecture.

While the process of developing a productive garden that reflects a significant consideration of design and symbolic content will be the primary focus, GROUNDWORK will also incorporate other activities (visitor's talks and creative workshops in response to the garden) and will close with a public gathering in the fall of 2009.



Photo by: Norman Lightfoot

### About RENDER [www.render.uwaterloo.ca](http://www.render.uwaterloo.ca)

Formerly known as the University of Waterloo Art Gallery (founded in 1964), RENDER's focus is the production and dissemination of contemporary art projects that emphasize innovation and research, address current social and cultural concerns, critically engage the use of new technologies and contribute to dynamic learning environments. Artist, writer and curator Andrew Hunter is the Director of RENDER. He established a youth focus and is collaborating with like-minded innovative cultural and social organizations in the Waterloo Region (and beyond) as a priority.

### About proboscis UK [www.proboscis.org.uk](http://www.proboscis.org.uk)

Since its foundation in 1994, Proboscis has explored how networks and modes of communication – virtual and physical – foster and build communities of people and interests. One of our key concepts – public authoring, the mapping and exchange of knowledge and experience – is rooted in our philosophy of collaboration and sharing, for which the act of listening is crucial. Where public authoring offers people a space to share their voice it also needs to encourage that voice to be heard and listened to. Our projects often begin life as a question; over time they develop into symposia, residencies, collaborations and artworks that can take the form of films, books, installations, ephemera, architectural constructions, published texts and art objects.

### About Jeff Thomas [www.scoutingforindians.com](http://www.scoutingforindians.com)

Jeff describes himself as an urban-Iroquois. He was born in Buffalo, New York, in 1956. His parents and grandparents were born at the Six Nations reserve, near Brantford, Ontario and left the reserve to find work in the city. The absence of "urban Iroquois" in any dictionary or anthropological publication informs his work as a photo-based artist, researcher, independent curator, cultural analyst and public speaker. "My study of Indian-ness seeks to create an image bank of my urban-Iroquois experience, as well as re-contextualize historical images of First Nations people for a contemporary audience. Ultimately, I want to dismantle long entrenched stereotypes and inappropriate caricatures of First Nations people."



# Ecological Monitoring:

## Environment Canada Funds Salamander Monitoring at *rare* by Emily Jane Hayes

Passion for the environment is something I have had for as long as I can remember. It was this passion that led me to a degree in Environment and Resource Studies and now to a contract position as an Ecological Monitoring Scientist at *rare* thanks to a Science Horizons grant from Environment Canada. As part of the grant I have been working with Peter Kelly, the Research Director at *rare*, to continue the Plethodontid salamander monitoring project. In 2006, Shannon Holton set up the initial monitoring plot (site one), and this year we established a secondary plot (site two).

The Plethodontidae family is made up of lungless salamanders and represents the largest salamander group in the world. They breathe through their moist skin and the roof of their mouths, staying moist by remaining under leaf litter and rotten wood on the forest floor. These salamanders are used for monitoring because they're a bio-indicator species for forested ecosystems. In other words, how they fare in a forest is an indicator of the health of the forest itself.

Plethodontids are sensitive creatures that typically have long life spans (20+ years), small home ranges, and constant population sizes, making them ideal for long-term monitoring. A change in population size would likely indicate some type of ecosystem stress, such as those that affect air or water quality.

*Eastern Red-backed Salamander*



Photo by: Peter Kelly

Following the protocols established by Environment Canada's Ecological Monitoring and Assessment Network, we set up artificial cover objects, such as wooden boards, to mimic the salamanders' natural habitat. All salamanders found were identified, measured, weighed and released. The boards were checked weekly. Site one was monitored nine times in the fall while site two was monitored five times. The Eastern Red-backed Salamander (*Plethodon cinereus*) was the most common find during this monitoring season - we found 334 of them. This included darker morphs of the Red-back known as Lead-backs. On October 20<sup>th</sup> we had a very exciting find - a Four-Toed Salamander (*Hemidactylium scutatum*), also a member of the Plethodontidae family.

Other terrestrial salamanders can occasionally be found at our sites. On our last day of monitoring, Peter and I found a Blue-spotted Salamander (*Ambystoma laterale*), which belongs to the Mole family, and during a site reconnaissance in early August, before official monitoring began, we happened upon a salamander that was a Jefferson/Blue-spotted Complex.

The salamander monitoring at *rare* has come to a close for the season because the salamanders are now burrowing into the ground for the winter. A full report of the monitoring data is being completed and will be used for future monitoring comparisons, educational purposes and environmental protection.



*Lead-back morph of the Red-backed Salamander*

Photo by: Emily Jane Hayes

## Bird Banding at *rare* - A Bander's "Tail." by Kevin Grundy

Our Fall Banding project started on August 16<sup>th</sup>, and continued until November 2<sup>nd</sup>. The specific purpose was to gauge the importance of the property as a migration corridor and stopover along the banks of the Grand and Speed Rivers. Our "headquarters" is the Resource House on Blair Road.....maybe you have noticed us there on Saturday and Sunday mornings? Others may have come across the nets, placed strategically about the property. We do ask that you don't touch anything. The nets are furled when not in use, and checked every fifteen to twenty minutes during banding operations. It's very important that any birds trapped in the nets are left completely without interference. Trained personnel will be along shortly to carefully extract the birds and take them back to headquarters where the banding process takes place before they are returned unharmed to their environment.

It is no easy feat to obtain a banding permit. In fact there are less than 2000 licensed banders in Canada. It takes several years of practical experience to safely handle wild birds, and a great deal of patience and manual dexterity is required to extract birds entangled in mist nets. After extraction, each bird has to be carefully examined to determine its species, age and sex. Only after positive identification can the bird be fitted with its uniquely numbered band, then assessed as to its general condition, wing chord measured, weight recorded, then released to continue its journey. Only after you have exhibited these skills can you be considered for a permit.

# Reports from the Field

## Bird Banding at *rare* - A Bander's "Tail."

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As of November 2<sup>nd</sup>, with 31 volunteers (thanks to all), we observed 148 species and banded 976 birds of 61 species. Considering we can only operate on weekends (thanks to that four letter word, WORK), this is no mean accomplishment. We usually operate seven nets, whereas most migration monitoring stations use considerably more than this, and are staffed seven days per week in migration season. One can only wonder just how good this site would be if we had the same amount of volunteers and equipment. Highlights included sightings of 11 species of raptors, two species of owl, five species of vireo, 24 species of warbler and 12 species of sparrow.

Many visitors ask about specific birds that are "out of the ordinary." This is a very personal thing for most banders. Personally, I am very pleased that we have banded more than fifty Cedar Waxwings. While not an unusual bird on the property, it is one of the most attractive birds we get to handle. My favourite bird though? Without doubt, the Orange-crowned Warbler. It has been at least seventeen years since I saw one for sure, and it was very special moment to find one in the net early one Saturday morning!

I can't finish this article without thanking Bill Wilson for his tireless efforts organizing the monitoring of the various trails running through the property. It is also incumbent upon me to thank George Hentsch, his daughter Erika, and Brett Fried, birder-turned-trainee-bander. Their dedication has ensured the success of this project.

So, as the Fall season winds down, we are looking forward to next Spring, and perhaps to your visit to learn more about this project. Feel free to drop in, say hello, and feel the magic of being up close with those amazing creatures, birds!



Kevin Grundy holding a Hermit Thrush

*Photo by: Charles Pomeroy*



Orange Crowned Warbler

*Photo by: George Hentsch*

## Very Rare Mushroom Found at *rare* By Peter Kelly

On Sunday October 5<sup>th</sup>, *rare* welcomed members of the Mycological Society of Toronto (mycology is the term used for the study of fungi) to the property for a mushroom 'foray' – an expedition to document the mushroom diversity in a given area over the course of a day. Members of the public were invited to attend and a large crowd gathered at *rare* headquarters in Lamb's Inn before heading to the Grand Trunk Trail. Over the next three hours, participants (led by Ernie Gallo and Larry Lamb) collected a wide variety of mushrooms from both sides of the path. Mushrooms were found on the forest floor, the bark of living and dead trees, the decaying wood of rotting logs and sticks, and even sprouting from the scales of pine cones.

At the end of the foray, the collected mushrooms were identified by experts from the Mycological Society. More than 86 species of mushrooms were collected this year and over 50 of these species were not found during the *rare* foray in 2007 (a similar foray last year yielded 63 species albeit at different locations on the property). Over 110 mushroom species are now known to call *rare* home!

Of the new species found, four are listed as 'not common' (*Agaricus placomyces* and *Geastrum fibriatum*) and another as 'uncommon' (*Clitocybe ectypides*). The highlight however was finding a specimen of a very rare species known as *Rhodotus palmatus*, a beautiful pink mushroom (found by Marianne Wright) that has only been seen five times in the last twenty years! The results of this year's foray are a testament to the biodiversity found at *rare*.



*Rhodotus Palmatus*

*Photo by: Umberto Pascali*

*Continued on page 8*



## 6 Hours, 25 Volunteers, 42 Species, 1500 Butterflies! by Jessica Grealey Continued from page 7

On July 13<sup>th</sup> 2008 **rare** hosted its 3<sup>rd</sup> annual NABA butterfly count organized by Jessica Grealey (Natural Resource Solutions Inc.) and Larry Lamb. Rescheduled from a previous date, due to poor weather, the count took place under sunny skies and with a great turn-out of volunteers.

The volunteers, in five groups, covered the majority of **rare's** lands including the Blair Flats, the Alvar, the Hogsback, Springbank Farm, and Preston Flats, counting all butterflies observed. Over the course of 6 hours, 42 species were identified and over 1,500 individuals counted !! Three new count species were recorded, including the coral hairstreak (*Harknclenus titus*), dion skipper (*Euphyes dion*), and the American snout (*Libytheana carinenta*)- a rare migrant in most of its Canadian Range. Special thanks to all of the volunteers who helped out!



Giant Swallowtail

Photo by: Jessica Grealey

### Species Summary:

Black Swallowtail 4, Eastern Tiger Swallowtail 19, Cabbage White 816, Clouded Sulphur 85, Orange Sulphur 10, Coral Hairstreak 15, Acadian Hairstreak 4, Banded Hairstreak 59, Hickory Hairstreak 1, Striped Hairstreak 20, Eastern Tailed-Blue 2, 'Summer' Spring Azure 2, American Snout 2, Great Spangled Fritillary 8, Meadow Fritillary 2, Pearl Crescent 3, Northern Crescent 12, Question Mark 2, Eastern Comma 1, Mourning Cloak 29, American Lady 4, Red Admiral 4, Red-spotted Admiral 12, Viceroy 1, Tawny Emperor 1, Northern Pearly-eye 23, Eyed Brown 25, Appalachian Brown 3, Little Wood-Satyr 63, Common Wood-Nymph 154, Monarch 14, Silver-spotted Skipper 2, European Skipper 127, Peck's Skipper 1, Tawny-edged Skipper 24, Long Dash 1, Northern Broken-Dash 3, Delaware Skipper 15, Dion Skipper 2, Black Dash 6, Dun Skipper 8, Polygonia sp. 1. Total 42 species, 1,590 individuals.

## The **rare** Scholarship in Graduate Research



Thanks to generous support from the Cloverleaf Foundation, **rare** is pleased to announce the first **rare** Scholarship in Graduate Research. This scholarship is valued at up to \$4,000 and is open to all Canadian and International graduate students who conduct research on **rare** property between May 2009 and April 2010. The field of study is open and could include, but is not limited to, research in ecology, zoology, pedology, restoration ecology, hydrology, botany, archaeology, agriculture and education. Preference will be given to long-term studies on the property (i.e. greater than four weeks). The Scholarship will allow students to study in a relatively undisturbed, yet highly accessible site. The monetary award will help ensure successful candidates have the necessary resources to conduct and report on their research at **rare**. It will also allow the student to give an oral presentation at a conference in their discipline. **Applications must be submitted by 17:00 hours on March 9<sup>th</sup>, 2009.**

In keeping with **rare's** research approval procedures, all applications will be judged by the **rare** Research Team. Your application should include:

- 1) your name, phone number and e-mail address, and the name of your supervisor, department and university where the research will be completed
- 2) your university transcripts from all institutions you attend or attended as an undergraduate or postgraduate student
- 3) the names, phone numbers and e-mail addresses for two references who can best assess your academic credentials
- 4) an outline of the proposed research including **a.** the problem the research is addressing **b.** your hypothesis **c.** your sampling design, field equipment and statistical tests that will be employed **d.** the length of time fieldwork will be conducted at **rare** **e.** the areas at **rare** where you will be sampling (give specific habitats and/or precise locations if possible) **f.** details on how the results will be made available to academics and the general public. **g.** any other ideas you have for publicizing the **rare** site and the Cloverleaf Foundation's work.

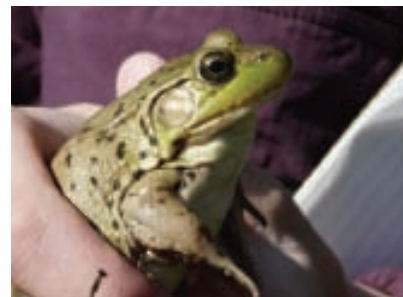
At **rare**, research is the priority program and this scholarship is an important addition to our search for answers – and the next set of questions – supporting the premise that knowledge about the structure and function of ecosystems is essential if we want human damage to the earth to be reversed. Further information about research at **rare** is available at <http://www.raresites.org>

Submit all documents to Peter Kelly, Research Director, **rare** Charitable Research Reserve, 1679 Blair Road, Cambridge, ON N3H 4R8. If you have any further questions contact Peter Kelly at 519-650-9336 x126 or [pekelly@raresites.org](mailto:pekelly@raresites.org).



## Nature Notes Continued from Page 4

Jason Bracey's Grade 12 Environmental Science class at Southwood Secondary School worked with a Grade 3 class as part of the *Chain of Learning* at **rare** on October 16. There were 22 Grade 3s and 26 Grade 12s. The classes found CRAYFISH, LEOPARD FROGS, GREEN FROGS, BULLFROGS, PUFFBALLS, DEER ANTLERS, TURKEY and GROUSE FEATHERS, SALAMANDERS and an overwintering MOURNING CLOAK BUTTERFLY (See photo).



*Photos by: Jason Bracey*

On October 30, the Southwood class watched 10 WILD TURKEYS in the corn field along the edge of the Hogsback off Newman Drive.

While monitoring the Linear Trail for the **rare** Birdbanding Station on November 1, Ruth Kroft observed a juvenile BRANT at the Confluence – a first report of this species at **rare**.

Ken Burrell observed a CACKLING GOOSE upstream of the Confluence on November 3, 2008 – a first report of this species at **rare**. Ruth Kroft observed 6 TRUMPETER SWANS at the Confluence on November 4.

## Our Readers Ask...

Q) **In the last couple of issues I have read about the Every Child Outdoors initiative and wondered if interpretive programs are available for school groups yet?**

A) **Pilot Programs - rare opportunities For Teachers:**

This spring **rare** will be piloting a series of new Environmental Education school programs. For a limited period of time you can bring your class to **rare** for a reduced fee to participate in our pilot programs. In exchange we ask that you complete an evaluation form and make yourself available via email or telephone to provide feedback. Your input will influence the development of the programs as we work toward officially launching them for September 2009.

Students will experience enriching hands-on fun while meeting several learning expectations in the newly revised grade 1 to 8 Science and Technology curriculum. Below are brief descriptions of the programs that will be piloted in the spring. Check our website for more complete program information:

### Grade 2: Life Cycles!

In this full-day program students will encounter tadpoles, toads, frogs, dragonflies, caterpillars and butterflies, as they engage in hands-on discovery at the exploration stations in **rare's** wildlife habitat garden located behind our



*Photo by: Emily Jane Hayes*

administration building. They will explore flight, life in the air and life under water. They will learn of the importance of clean air and water and how the animals they encounter rely on both for successful completion of their life cycles.

### Grade 3: Get The Dirt on Plants!

During the morning portion of this full-day program, students will engage in hands-on exploration of plant anatomy, and plant products, and plant-related concepts – for example - pollination and fruiting, plant-animal interdependence and photosynthesis. They will also explore soil and composting as they 'get the dirt on plants' to try to solve the mystery of where soil comes from. In the afternoon, students will participate in sustainable organic gardening activities. They will use a push mower, mulch raised beds, hand-weed, and harvest, transplant or seed plants, depending on the time of year.

### Grade 4: Habitats Rock!

In the morning portion of this full-day program, students will hike through the cliffs and alvars, and explore forest, wetland, and old field where they will be introduced to feature creatures and their natural communities. Through small group activities they will explore key concepts in the curriculum, such as interdependence, adaptations, food chains, and species at risk. In the afternoon, students will take a close look at limestone. They will search for fossils in the slit barn, and learn about the importance and impact of the aggregate industry in Ontario.

**Note:** Two hour long Guided hikes through the cliffs and alvars area are available from April to mid November. The theme of the hike can be tailored to your class's needs. Special arrangement may be made for hikes through other areas of **rare**. Call Leslie Work at (519) 650-9336x 114 for more information.

Response by Education Director, Leslie Work.



*Photo by: St. Augustine School*



*Photo by: Peter Kelly*

## The Stories, Told by a Barn

### A Brief History

The Slit Barn and accompanying farm house that we now call the Resource House are local landmarks and have seen many faces come and go since they were first constructed in the 1840s. These faces include Matthew Wilks who purchased the property in the 1860s and whose ancestors owned the property for over a century. His youngest daughter Katherine Langdon Wilks raised prize-winning horses while her nephew Matthew Wilks Keefer had a herd of champion Hereford cattle. For decades the Resource House was home to Katherine's chauffeur who successfully made the transition between the horse and carriage era and the age of the automobile.



Photo by: Pirak Studios

### Patterns in the Stone

Look closely at the walls of the Slit Barn. What do you see? Are those really clams embedded into the surface of the rock? Yes indeed. The rock that was quarried locally to construct the barn is known as limestone and was formed 420 million years ago when **rare** was sitting at the bottom of a shallow, warm equatorial ocean south of the equator, around where Australia's Great Barrier Reef is situated today! These clams are known as *Megalomus* and while the original clams are long gone they have left casts of their shapes in the rock that formed from the sediments in which they died. If you look closely, you might also see fossils of sea lilies (also known as crinoids), corals, snails, sponges or brachiopods (creatures similar to *Megalomus* that have that classic 'shell shape'). These *in situ* fossils create fascinating patterns in the barn wall surface and are an extraordinary geological and biological teaching tool.



Photo by: Alan Morgan

### The Slits

The most obvious feature of the Slit Barn is the slits themselves. Your first guess at their origin might be that they were incorporated into the barn's design for defensive purposes. While this is untrue, there is a connection between their design and that of old castles. The slit design in old stone barns is often called 'loop-hole ventilation', a term which dates back to the 1400s when the term was applied to castle windows. In fact, the primary purpose of the slits or loop-holes was for ventilation. Barns are often filled with large amounts of plant dust – tiny bits of firewood floating in the air that can ignite catastrophically if exposed to a heat source. The slits are arranged in a pattern and splayed inwards (wider on the inside of the barn than on the outside) to promote air flow outwards and to prevent rain from entering. To increase the amount of light entering the barn, the inside of the slit window was painted white.



Photo by: Peter Kelly





Photo by: Peter Kelly

## A Fusion of Styles

The barn is both eye-catching and designed with a specific function in mind. While the basic barn type is that of English and/or Scottish origin, it is unusual in that it also incorporates elements of 'German' Bank barns that are common on Mennonite farms in the region (there was considerable emigration of Mennonites to the Blair area between 1817 and 1850). This type of barn is also known as a 'three bay barn' and was subdivided into three sections to facilitate the threshing and storage of grains rather than to accommodate livestock. The grain was threshed (separated from the plant) by hand in the Slit Barn's main "room" while the grain was stored down below in the remaining two bays – unthreshed grain in one and the threshed grain and straw in the other. These last two bays are now covered by a floor that was added later.



Photo by: Peter Kelly

## Into the Future

As we head into the future, *rare's* goal is to convert these buildings into interpretive facilities that will support our education and research programs. Perhaps you have read in previous issues of the *rare* Review about our *Every Child Outdoors* program. If so, then you know how integral renovations to the Slit Barn are to our plans. When renovations are complete, the barn will be a three-season interpretive pavilion and function as an orientation site for visitors to the property. It will also be a community facility for special events. But we need your help to make this goal a reality. Only with your support will we be able to save the barn – one of only a few such structures remaining in Ontario - and have it become a vital part of our landscape again, serving as the central focus for new generations of visitors. A gift of any size makes a difference and helps to ensure that your grandchildren will get to see one of the way-markers that inspired you. Donate now by going on line at [raretoome.ca](http://raretoome.ca) or by using the enclosed reply form and envelope.

## Professor Alan Morgan Awarded the McNeil Medal

Congratulations to Professor Alan Morgan of the University of Waterloo and member of **rare's** Ecological Monitoring Team for being awarded the 2008 McNeil Medal for the Public Awareness of Science from the Royal Society of Canada (RSC). This medal is awarded to a candidate who has demonstrated outstanding ability to promote and communicate science to students and the public within Canada.

Alan has promoted the public awareness of science for over 30 years, through over 700 public lectures, three national tours and lectures in Sri Lanka, the United States and Europe. In 1973 he made a CBC documentary for "The Nature of Things" about the Heimaey Eruption, Iceland. Since then he has assisted the Geological Survey of Canada and Robert Ballard's "Jason Project VIII" with video as well as providing film footage for BBC television, and other documentaries.

This award puts Alan in an elite field of honourees. Past recipients of the McNeil Medal have included Jay Ingram, Bob McDonald and David Suzuki. Additionally this is Alan's second award from the RSC having received the Bancroft Medal in 1994.

Heading into 2009, Alan's teaching excellence, his impact in the promotion of science and educational leadership is being further recognized by the University of Waterloo as they nominate him for the 2009 3M Teaching Fellowship, Canada's highest recognition for university teachers. We wish Alan the best of luck with the nomination and are deeply grateful to have him as such a strong supporter of **rare**.

## Contact Us!

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### Staff

**Patti Leather**, Executive Director  
**Sharon Bowes**, Community Outreach Coordinator  
**Matthew Crooks**, Community Gardens Manager  
**Ken Dance**, Consultant, Dance Environmental Inc.  
**Peter Kelly**, Research Director  
**Ian Rowett**, Bookkeeper  
**Josh Shea**, Land Steward  
**Tarah Walsh**, Special Projects  
**Leslie Work**, Education Director



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**Doug Larson**, Faculty Member, College of Biological Sciences, University of Guelph  
**Alan Morgan**, Faculty Member, Earth Sciences, University of Waterloo  
**Stephen Murphy**, Faculty Member, Environment & Resource Studies, University of Waterloo  
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**Bill Wilson**, retired Teacher; Naturalist; Regional Co-ordinator, Ontario Breeding Bird Atlas

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**David Buckland**, Founder, Cape Farewell [www.capefarewell.com](http://www.capefarewell.com); director of *Art from a Changing Arctic*  
**Ed Burtynsky**, Photographer; subject of award-winning documentary, *Manufactured Landscapes*  
**Severn Cullis-Suzuki**, Environmental activist; speaker; television host; author  
**Ron Dembo**, Founder, Zerofootprint [www.zerofootprint.net](http://www.zerofootprint.net)  
**Louise MacCallum**, retired software engineer; Philanthropist; Musagetes Foundation  
**Sheila O'Donovan**, Founder, Lisaard House  
**Jane Urquhart**, Author  
**Morden Yolles**, Multi-Award winning structural engineer; restaurateur; photographer

### Archaeology Committee

**Chris Dalton**, (see previous)  
**John MacDonald**, Senior Archaeologist, Timmins Martelle Heritage Consultants Inc.

### Education Committee

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**Susan Trotter**, Teacher, New Dundee Public School

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