the Bluestem Banner

Summer 2008 **Tallgrass Ontario** **Volume 8, No. 2**

Climbing Prairie Rose (Rosa setigera) *Photo: A. Woodliffe*

Inside the Bluestem Banner

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Feature Plant

Tallgrass roses of Ontario - *Allen Woodliffe*

There are two main native species of rose found in Ontario's tallgrass prairies. The more widespread and common one is Pasture Rose (*Rosa carolina*). Considerably more limited in its abundance and distribution is Climbing Prairie Rose (*Rosa setigera*).

Pasture Rose is found in most municipalities adjacent to lower Lake Huron, the north shore of Lake Erie, western Lake Ontario as well as Prince Edward County and slightly downstream in the first stretch of the St. Lawrence River. It is typically found in prairies and pastures as well as dry sandy roadsides and along the forest edge. Pasture Rose is easily identified as a low

Pasture Rose (Rosa carolina)

growing shrub, typically less than one metre in height. It usually has 5-7 leaflets, but sometimes only three, and numerous straight spines and prickles. The showy five-petaled flowers are pink and mostly solitary.

Climbing Prairie Rose is limited in Ontario primarily to the municipalities of Essex, Chatham-Kent and south Lambton. It is ranked as a species of Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). There is a record for Middlesex County, and an out of normal range record for Prince Edward County, although its native status at this latter location is uncertain.

Climbing Prairie Rose is typically found in prairie, savanna and various open areas such as the alvars on Pelee Island as well as roadsides, hedgerows and ditch banks. Soil preferences are wide-ranging and include sand, loam and even clayey. It has numerous clusters of showy five-petaled flowers that can range from pink to white. Leaflets on flowering stems are usually arranged in threes, whereas on non-flowering stems are more often five.

The newest branches of Climbing Prairie Rose are medium green and have numerous broad-based decurved prickles. The stems grow extensively and when growing out in the open, will arch over and establish roots at the point where they contact the ground. True to its name, it climbs when growing amongst large shrubs trees. The quickly growing branches can climb several metres up through the open branches of other woody species as they strive for light. I have observed them growing at least five metres high.

Some native species of rose have extrafloral nectaries, which are nectar-producing glands in the flower parts that are not associated with pollination. Researchers have determined that species with extrafloral nectaries are capable of attracting numerous aggressive insects, such as ants and wasps, which in turn deter herbivores from devouring the plants.

Roses were often considered a valuable medicine and food source by aboriginal people. The fruits produced by our native roses vary in size, usually ripening by late August or early September, and persisting throughout the winter. These fruits, or hips, are high in Vitamin C and make an excellent tea. Some hips have greater concentrations of Vitamin C than others, and three hips have been determined to have as much of this essential vitamin as a whole orange! Even today, some commercial manufacturers of Vitamin C use rose hips.

The fruits were used as an emergency source of food. However the tiny hairs on the fruits were also known to irritate the lining of the stomach, and so it was necessary to strain these hairs before ingesting the fruits or drinking the tea. Sometimes the berries were added to pemmican. The hips are at their sweetest after a light frost.

More than one native tribe of Indians used the berries or the inner bark of the roots in their treatment of eye disease, snow blindness and even cataracts. Others used it to treat stomach trouble, diarrhea, hemorrhoids, nose bleeds, reduce swellings, tonsillitis, sore throats and muscular pains. Early settlers followed the lead of these aboriginal people and used roses for many of the same purposes.

Native prairie roses certainly are a valuable natural pharmacy in themselves! Yet even without these pharmaceutical attributes, they are a colourful, long-lived and appealing member of any prairie community.

Feature Article

Heronwood: the first 25 years – *Ivan and Fran Foster*

Ivan and Fran are members of Tallgrass Ontario and reside near Pefferlaw, Ontario.

In 1983, Fran and I bought some vacant acreage. It was our intention to build a house, and maintain the rest as a natural area for all wildlife, both plant and animal. Twenty-five years later we are still committed to our original objective.

Our property provides a wildlife corridor between the Duclos Point Provincial Wildlife Area to the north, and the Egypt-Zephyr Wetland Complex to the south. Our property was abandoned farmland, left to the whims of nature. Forest regeneration was well advanced. Fields were no longer well defined. Fences that may have been present were no longer there. The soil is predominantly sand, with shallow topsoil, if present at all. The regeneration consists mainly of the pioneer species such as aspen, white birch, cedar, ash and red maple.

The fifty acres consists of approximately 45 acres of forest of various stages. There are several small open areas, an intermittent stream flowing through a cedar/ash swamp, and a beaver pond.

We maintain a small food plot of grasses and red clover for the deer and turkeys. Deer and turkey tracks can be seen using the trails we have established throughout the woodlot. For the last several years a white-tailed doe has used the area between the house and the beaver pond to nurture her fawn through the first few weeks of its life.

We had as many as 7 turkeys at one time on the back lawn this spring, four jakes and 3 hens. Two hens have decided to remain near the house and we see them most days. In late summer, hen turkeys often walk by with their poults.

Tree Swallows, House Wrens, or Chickadees usually occupy the songbird nest boxes. Occasionally, we get a Bluebird. This year a pair of Bluebirds used one nest box, but we noticed the female was missing one day. On closer inspection, we found the remains of a wing near the nest box, perhaps the result of a small hawk attack.

We have known for probably 20 years or more that, in what we call the west meadow, there is an unusual type of grass. We tentatively identified it as Big Bluestem Grass. After finding a website for Tallgrass Ontario, we contacted them, and with the aid of some digital photos, the grass was confirmed as Big Bluestem Grass. This is a tallgrass prairie grass. Graham Buck of Tallgrass Ontario did a site inspection and took GPS co-ordinates to add this site to their database. Apparently, we have one of the rarest of eco-systems in Ontario, a tallgrass prairie remnant. The property also has a few other prairie indicator species including Wild Bergamot, or Monarda, Black-Eyed-Susan, Showy Tick Trefoil, and various asters. The plants are rather scattered throughout the area so we are doing some enhancement work to protect and expand the prairie into some of the open meadow areas. Big Bluestem It is a drought-tolerant grass, and once established it should do well.

Shortly after we bought this property, I (Ivan) was discussing my plans with George Cooke. George was on the executive with the Ontario Federation of Anglers and Hunters (OFAH) at the time. He suggested this was a mammoth undertaking, and perhaps should become a club project. There was no local clubs affiliated with OFAH in my area at the time, so this has been basically a 2-person project since the beginning. This is truly a “labour of love”, and we get a great deal of satisfaction from what we do.

Ivan is a member of The Georgina Sportsmen’s Alliance, The Ontario Woodlot Association, The Woodlot Association of York, an Honorary member of the South Lake Simcoe Trapper’s Council and a Life Member, Ontario Federation of Anglers & Hunters.

Ivan and Fran support the Canadian Wildlife Federation and collect data for the Ontario Breeding Bird Atlas, the Tree Atlas, and the Atlas of the Mammals of Ontario

Niagara Parks Prescribed Burns

- Rob Ritchie

The care we took of our little prairie garden really started it all. Niagara Parks has a prairie plot – about 900 square feet – situated in our Arboretum at the Niagara Parks Botanical Gardens and School of Horticulture. Started as a student project in 1995, we became interested in seeing what would happen if we could enhance it through a Prescribed Burn (PB). Thus,

The 2008 PB near the Centennial Lilac Garden site. The Red Oak surrounded by flames is about 15 years old and survived the burn with only a few of the lower branches affected detrimentally

in 2007 we requested, and subsequently received permission for carrying out this mini-PB. To our surprise, the prairie responded phenomenally well. For example, our Big Bluestem, originally about four feet high, now towered above us on eight foot stems. Upon observing this success, management generously granted us with the capacity to plan for future burns in other tallgrass restoration areas.

This spring Niagara Parks carried out prescribed burns on three tallgrass sites within our jurisdiction. These included the Paradise Grove Black Oak Savanna, our Chinquapin Oak Savanna and a naturalized prairie site situated north of the Centennial Lilac Gardens. This was the first time we have burnt all three of these sites. The Paradise Grove and the Chinquapin Oak Savanna have responded very well to this particular management technique. Unfortunately, after the burn on the Lilac Garden prairie site, Canada thistle responded so well to the post-burn conditions that it took the opportunity to invade the entire site.

With project partners Pheasants Forever, Land Care Niagara and the Rural Lambton Stewardship Network, we decided that our next step for ridding the naturalized prairie of invasives would be to plant a cover crop of soybeans this summer which would

Visitor enjoying the Chinquapin Oak Savannah along the Niagara River Recreational Trail

prepare the site for a more intensive prairie planting in the spring of 2009.

Tallgrass restoration within Niagara Parks is not just limited to these three areas. Additionally, Niagara Parks leases about 65 acres of the Paradise Grove Black Oak Savannah from Parks Canada; this site has been recommended for a prescribed burn in the next five years. It is one of about fourteen other sites within Niagara Parks that we are looking at for restoration using this technique.

I should point out that in 2006, we contracted the Natural Heritage Information Centre (NHIC) to do a full growing-season inventory of the flora (and observable fauna) in the Niagara Gorge and Niagara Glen/Whirlpool area. While it is not a tallgrass habitat, we found out that it has one of the largest concentrations of Species at Risk anywhere in Canada! The work we are doing with tallgrass serves to complement our environmental projects in and around the Niagara Glen; these projects help to preserve, protect and increase this rich biodiversity, for the benefit of citizens and wildlife.

We've come a long way since the little experiment with our prairie plot. We are multi-partnered on a variety of environmental projects. I'm excited about a current initiative to collaborate with two of our adjacent neighbours, Ontario Power Generation and Hydro One. There are three high-tension lines that run across the Chinquapin Oak Savanna. We have embarked on a project with them to establish prairie along these hydro right-of-ways to work towards increased biodiversity and the long-term elimination of herbicides.

The 2008 PB on the Chinquapin Oak Savannah one hour after the burn.

Paradise Grove Black Oak Savannah PB on 17.April.2008. Average age of the oaks is 200-250 years, with several individual trees estimated to be about 400 years old

Part of the Chinquapin Oak Savannah burn site about three months post-burn. This site will be spectacular with asters and goldenrod through late summer and autumn 2008.

Arboretum prairie plot on burn day 17.April.2008. Fuel load from 2007 plant residue created a "flash-in-the-pan" burn that lasted less than 10 minutes.

Arboretum prairie plot in August.2007. Big Bluestem grew to heights over 8 feet.

Ontario Parks Burning to Restore Endangered Species & Spaces - *Sandy Dobbyn*

Ontario Parks Southwest Zone conducted 7 prescribed burns in three provincial parks with a total area burned of approximately 130 ha. Burn blocks ranged from less than a ha to a single 72 ha block in Pinery Provincial Park. All of these burns were done under the low complexity guidelines and were conducted by trained park staff. The majority of Ontario Parks burns are conducted to restore and maintain provincially significant tracts of oak savannah and woodland. Two burn blocks at Pinery were burned to try and encourage Bluehearts (Buchnera americana), which is an endangered species with its only Canadian populations found in the Pinery/Port Franks area.

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Ignition at Pinery Provincial Park

Prescribed Burn in the campground at Pinery Provincial Park

Prescribed Burn at Rondeau Provincial Park

Top: Turkey Point Provincial park right after prescribed burn and during following summer (bottom)

Bluehearts flowering at Pinery

Bringing Back Brant's Tallgrass

Blue Lake Savanna Restoration Project a Success

In April the Brant Resource Stewardship Network completed a third prescribed burn of the Blue Lake Savanna. This unique provincially significant natural area consists of three of the rarest tallgrass habitats in southern Ontario: White Oak Savanna, White Oak-White Pine Woodland and Bur Oak-Hill's Oak Savanna. These communities provide habitat for numerous rare species, including the largest population of the endangered American Columbo. The combination of prescribed burning and invasive species removal has resulted in an increase in American

Burn Boss Graham Buck reviews the site and burn plan with the crew members before the burn starts.

The crew watches as the fire creeps through the understory of the White Oak Woodland. Low-intensity oak woodland fires consume only leaves and small plants, while leaving the larger trees unharmed.

Crew member David Clemons, who is one of the owners of the Blue Lake Savanna, safely ignites the initial fire while other crew members stand by for safety and fire suppression.

Students Leave Prairie Legacy

On May 9, Tim Horton's Children's Chairty Camp hosted the Ontario Envirothon Championships. Over 100 high school students from across Ontario planted native trees and prairie plants to give back to their host community of Brant County. A permanent sign was unveiled at the Pinehurst Conservation Area to commemorate the 2008 event. The planting consisted of over 1700 plants all indigenous to prairie and meadow habitats of Brant County.

Tallgrass in the News

Rare Species of Sand Wasp to Combat Emerald Ash Borer

A rare species of sand wasp found in the prairie remnants of Windsor is showing the value of protecting tallgrass habitats is not always obvious. The tiny insect is being used to combat the spread of the invasive emerald ash borer, which has killed more than 20 million ash trees in North America. A few wasps from a colony were removed earlier this summer by researchers at the University of Guelph and moved to different areas of the province. The researchers hope the wasps will assist people in monitoring for the pest by detecting the beetles before they become too established to eradicate. Windsor naturalist Paul Pratt said the wasps can detect the tiny beetles a year or two before humans can. The emerald ash borer is an insect that is native to Asia which has ravaged ash trees throughout southwestern Ontario. It's believed to have arrived in North America in contaminated packing crates.

ERCA and ECSN Conduct Prescribed Burns to Benefit Prairie Habitat

Throughout history, fire has been nature's method of revitalizing and maintaining tallgrass prairie ecosystems, keeping them open and free of shrubbery, allowing rare plants and animals to flourish. Periodic prescribed burns provide the same benefits, but in a very controlled fashion. Protecting and enhancing biodiversity are among ERCA's top strategic priorities, and in order to maintain and enhance some of these fire-dependent tallgrass prairie ecosystems, the Essex Region Conservation Authority (ERCA) and the Essex County Stewardship Network (ECSN) partnered in April to conduct Low Complexity Prescribed Burns (LCPBs) on two different sites containing tallgrass prairie vegetation. One was carried out at Hillman Marsh Conservation Area owned by ERCA, and the second took place on private property in southwest Kingsville. At Hillman, approximately 5 hectares (12 acres) of tallgrass prairie grassland was burned, and in Kingsville, a additional 0.6 hectares (1.5 acres) of recently established tallgrass prairie vegetation was burned. . As with all professional prescribed burns in Ontario, safety was the top priority to protect both human and property

"The vegetation response to these Prescribed Burns has been remarkably positive, especially at Hillman Marsh Conservation Area," reported Dan Lebedyk, ERCA's Conservation Biologist. "The site has been invigorated by the application of fire, resulting in a significant increase in the abundance of meadow wildflowers within this prairie plot."

These two prescribed burns were also conducted as part of the Low Complexity Prescribed Burn Boss Certification process, for which Lebedyk has now received full certification.

Volunteers Plant New Meadow

In the spring Stoneybrook School Students help Upper Thames Conservation Authority establish the Rea Meadow in honour of the London philanthropist . The plants have established successfully in only a few months and the area (pictured below) looks beautiful while providing important habitat to insects and songbirds. The meadow is located at the Fanshawe Pioneer Village in London. Two pictures of the meadow in the first season are below.

The Alderville First Nation Recovers Habitat for Snakes – Janine Mcleod

South of the Lake the Ojibway called Lake **Pamitaskwotayong** – Lake of the Burning Plains you will find the Rice Lake Plains. There resides the Alderville Black Oak Savanna. In the late 1990s this land was recognized as a significant remnant and since then it has undergone significant restoration. The natural area is still home to several provincially rare or uncommon species of plants, insects and birds.

One of these is the threatened Eastern Hognose Snake. Alderville hosts a healthy population of American toads, the primary food source of the Eastern Hognose Snake. Through collaboration with the Nature Conservancy of Canada, Ganaraska Conservation Authority and Trent University we are now exploring the opportunities of enhancing habitat for the Eastern Hognose Snake. Along with the Eastern Hognose, other species at risk benefit from our savanna and tallgrass prairie conservation activities. For instance, animals such as the Eastern Milksnake, and Red-headed Woodpecker.

Summer Assignment: Search for Snakes – Nature Conservancy of Canada

For twenty years he has been educating local students about the outdoors and wildlife. Now Mark Rupke has a new assignment: finding and documenting Eastern Hog-nosed Snakes in Northumberland County. The Nature Conservancy of Canada, Ganaraska Region Conservation Authority and Alderville First Nation have hired Mark to raise awareness about the Hog-nosed, and to identify the locations where this elusive snake can be found.

Hog-nosed Snakes can reach lengths of just over one metre. They have a thick body and are usually olive coloured with noticeable blotches on parts of the body. The Hog-nosed Snake, sometimes referred to as a "Puff Adder", is completely harmless despite its bizarre and often frightening defense behavior. It puts on a convincing act of mimicking a cobra when disturbed, often scaring people who may end up harming the snake in what is, quite fairly, perceived as an act of self-defense. This is why education about the Hog-nosed is especially important.

"The first time I saw an Eastern Hog-nosed it gave me quite a start," reports Mark. "I was out with a university class studying plant taxonomy in a dune area near Lake Michigan when all of a sudden, a snake I had never seen before reared up, flared its neck, and hissed. Fortunately my teacher knew all about the Hog-nosed Snake. As we circled around it, it realized we were not going to run away, and appeared to have a seizure, fall on its back and die with a shiver, tongue hanging out and all. It was quite an act".

This summer, Mark is working on the *Snakes on the Plain* project, now in its second year. Last summer, this joint initiative saw the development of a pamphlet and signs urging people to protect the snakes. These materials educate readers on how to identify the snake and explain its behaviour and its at-risk status, and also provide contact details for reporting sightings. Last year's coordinator attended local public events to raise awareness about this threatened species and to urge people who encounter it not to harm it. Instead, people are encouraged to report sightings and, if possible, take photographs. The sightings reports will allow the partners to map where the snakes occur locally.

"We know there is a population within and around the Northumberland Forest but we would like more records of them to determine the full extent of their range and the size of the population," notes Mark. "When we visit likely snake habitat areas and ask about the Hog-nosed, one person will have stories and photographs clearly documenting their presence, while a homeowner down the road may never have seen one. The snakes like to avoid people when they can."

When offered the summer position of *Snakes on the Plain* coordinator, Mark knew it would be a way to put a lot of his experiences to good use. "So far, I am really enjoying it," says Mark. "Especially interacting with the public and searching for the snake."The study is being carried out by the partners through funding from Environment Canada's Habitat Stewardship Program
For ore information contact Mark at Mark_Rupke@kprdsb.ca or 705-761-6466.

Royal Botanical Gardens Restores Tallgrass Remnants

This spring Royal Botanical Gardens completed the third burn of the Sassafras Point Savanna and the fourth for the York Boulvevard prairie. The burns were deemed a success for restoring the structure of the rare plant communities and promoting some of the tallgrass plants, such as big bluestem, little bluestem and stiff goldenrod. Also in 2008 a meadow with patches of prairie grasses was burned to promote the tallgrass species and release a seed bank. Local seed was scattered after the burn, in controlled plots, to encourage the further colonization of prairie plants amongst the meadow plants, such as goldenrod. In all 4 hectares was burned by Lands and Forests Consulting.

Tallgrass Ontario Update

Membership: *On the mailing label is a number that indicates the year of your last membership payment. If you wish to keep receiving the Bluestem Banner by mail please ensure your membership is up to date.* ***The Bluestem Banner is now sent for free via email.***

Regional Coordinators

Tallgrass Ontario is establishing three new regional coordinators. The positions will allow Tallgrass Ontario to implement the Tallgrass Ecosystem Recovery Strategy with partners in three districts throughout southern Ontario.

While the knowledge of the importance of tallgrass grassland habitat recovery is advancing rapidly, the development of the capacity to complete the projects is lagging behind. The three coordianotrs will provide a new and innovative structure for efficient technical transfer between landowners, local conservation groups, experienced practitioners, recovery teams and provincial agencies and networks. The proposed restoration capacity building section would lead to better and more efficient projects on the ground.

Over the summer, fall and winter Tallgrass Ontario will help local groups to to build the resource base for grassland habitat recovery through:

- Encourage collaboration between agencies recovering tallgrass throughout the province.
- Ensure regular communication among all the participating organizations active across southern Ontario.
- Foster strategic planning for tallgrass grassland habitat recovery amongst partners, supporters and other organizations and individuals.
- Host workshops in partnership with local conservation groups to ensure consistency and coordination with local habitat stewardship initiatives
- Facilitate the ability of organizations to work better together to deliver programs and services that have an impact on the environment.
- Build leadership, engage communities and mobilize volunteers.
- Assist organizations with the recruitment, training and retention of volunteers and contractors to complete ecological restoration tasks.
- Increase the capacity for restoration by allowing groups to share restoration equipment.
- Initiate local seed collection, propagation and planting activities on private and public land to increase the capacity for creating new habitats.
- Host volunteer events and educational outings to increase experiential learning
- Guide landowners to develop an ecologically appropriate tallgrass grassland habitat plan for their properties
- Provide efficient follow-up to identify the best conservation partner for each landowner, based on significance of habitat and landowner goals. Link to existing stewardship groups and incentives.
- Provide additional support for high priority projects.
- Consult with regional partners to jointly identify and promote best practices for habitat recovery
- Bring together key habitat information in one source for landowners.

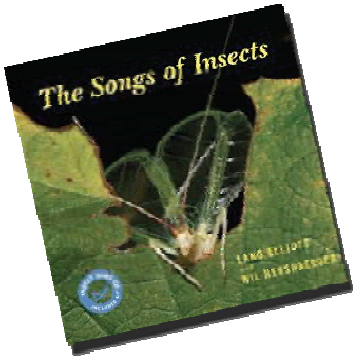
Brian Titaro is the Central Region Coordinator for Waterloo, Brant, Norfolk, Haldimand, Niagara, Hamilton and Halton. To contact Brian phone 519 448 1502 or email tallgrass@execulink.com Tallgrass Ontario appreciates the support of Brant Resource Stewardship Network and the County of Brant who are contributing in-kind office space and payroll services to Tallgrass Ontario. The funding for the regional coordinators is provided by Habitat Stewardship Program.

Tallgrass Mapping

In 2008/09 Tallgrass Ontario and the Nature Conservancy of Canada are analyzing the clusters of tallgrass habitats, tallgrass habitat rare species, landuse, soil type and other factors to develop the top places in southern Ontario for restoring tallgrass ecosystems. This work will ensure that tallgrass restoration and planting is being focused on the areas where the work will have the most impact.

The Plains are Alive:
The Songs of Insects by Lang Elliot and Wil Hershberger

Reviewed by Bronwen Buck
Pages: 228; Publisher: Houghton Mifflin; Cost: $26.95 Soft Cover.



One may not expect to feel inspired by an identification guide, especially one about insects. But in *The Songs of Insects*, authors Lang Elliott and Wil Hershberger refuse to settle for simple usefulness. Instead they also offer enough intrigue and charm to keep even the most squeamish turning page after page to learn more.

The Songs of Insects, including its companion CD of insect songs, invites readers on a visual and acoustical exploration into a world of insect musicians that includes seventy-seven crickets, katydids, grasshoppers and cicadas found in the eastern and central United States and Canada. For anyone whose fascination with insect life has been bogged down by the weight of entomological language, the authors' style is refreshingly straightforward. Elliott and Hershberger celebrate insects and their songs in a manner that avoids jargon, while relying on clear prose whose lyrical, even poetic qualities cultivate wonder without diminishing the book's practical worth as a guide. For example, they commence by paying homage to our "insect minstrels" through a verse of Dickenson's poetry after which they welcome readers to use the guide as a tool by which they may "gradually unravel" the nature of insect performances, identify some of the contributing instruments and appreciate the "seasonal unfolding of temperate America's natural soundscapes."

The authors provide building blocks for better understanding of native insect musicians through the first thirty-odd pages of their work. In a series of succinct subsections, they include a visual classification key, explanations about insect biology including how, why and when they produce sound and, not surprisingly, a discussion about insect appreciation. Packed with fascinating facts, these sections condense what could potentially be overwhelmingly dry material into an easily digestible format suitable for a wide audience including amateurs like myself and even children.

Organized into easily distinguishable insect families, *The Songs of Insects* devotes two pages to each species, describing general characteristics, food sources, habitat and range. The authors' own jewel-toned photographs inspire enough awe to make the book worth purchasing. Yet just as notable are the sonnograms with which, Elliot and Hershberger graphically represent each insect's unique song.

The Songs of Insects might benefit from some commentary on the impact that increasingly fragmented landscapes have on various insect populations, and the resulting urgent need for insect conservation. . Yet the authors achieve what they set out to accomplish in this somewhat unconventional book: not only is it a worthy reference, it sheds light on the oft overlooked insect microcosmos that surrounds us, coaxing us to unplug and "tune in" to nature's late summer chorus with heightened awareness and appreciation.

This katydid which appears to be standing on the page, typifies the vivid, sharp photos in The Songs of Insects.

Did you know?

- Since the pulse of insect songs varies with temperature, the songs of certain species may be used to estimate approximate temperatures using a simple formula.
- Some insects sing in synchronized choruses. In fact, some groupings of katydids may intentionally synchronize song by alternating calls with other groupings of their species. The end effect is the creation of a huge, pulsating soundscape.
- Grasshoppers have auditory organs on the abdomen, while crickets and katydids listen using their front legs.

Resources:

- *Songs of Insects* website: www.songsofinsects.com
- Singing *Insects* of North America: www.buzz.ifas.ufl.edu
- *Ojibway Prairie Orthoptera* http://www.ojibway.ca/orthoptera.htm
- *Field Guide To Grasshoppers, Katydids, And Crickets Of The United States* by John L. Capinera, Ralph D. Scott, Thomas J. Walker

Ontario Katydids & Crickets

- Graham Buck

CRICKETS

GRYLLIDAE

Pine Tree Cricket *Oecanthus pini*
Snowy Tree Cricket *Oecanthus fultoni*
Black-horned Tree Cricket *Oecanthus nigricornis*
Narrow Winged Tree Cricket *Oecanthus niveus*
Four-spotted Tree Cricket *Oecanthus quadripunctatus*
Gray Ground Cricket *Allonemobius griseus*
A Cricket *Allonemobius griseus griseus*
Allard's Ground Cricket *Allonemobius allardi*
Striped Ground Cricket *Allonemobius fasciatus*
Spotted Ground Cricket *Allonemobius maculatus*
Sphagnum Cricket *Neonemobius palustris*
Greenhouse Camel Cricket *Tachycines asynamorous*
House Cricket *Acheta domesticus*
Say's Bush Cricket *Anaxipha exigua*
Fall Field Cricket *Gryllus pennsylvanicus*
Spring Field Cricket *Gryllus veletis*
Carolina Ground Cricket *Eunemobius carolinus carolinus*

RHAPHIDOPHORIDAE

Pale-legged Camel Cricket *Ceuthophilus pallidipes*
Black-sided Camel Cricket *Ceuthophilus latens*
Short-legged Camel Cricket *Ceuthophilus brevipes*
Thomas Camel Cricket *Ceuthophilus guttulosus*
A Cricket *Ceuthophilus guttulosus guttulosus*
A Cricket *Ceuthophilus guttulosus thomasi*
Spotted Camel Cricket *Ceuthophilus maculatus*
Striped Camel Cricket *Ceuthophilus meridionalis*
Uhler's Camel Cricket *Ceuthophilus uhleri*

GRYLLOTALPIDAE

Northern Mole Cricket *Neocurtilla hexadactyla*

KATYDIDS

Oblong-winged Katydid (pink morph)
Amblycorypha oblongifolia

TETTIGONIIDAE

Prairie Meadow Katydid *Conocephalus saltans* S1S3
Straight Lanced Meadow Katydid *Conocephalus strictus* S3?
Angle-winged Katydid *Microcentrum rhombifolium* S1?
Northern True Katydid *Pterophylla camellifolia* S4
Delicate Meadow Katydid *Orchelimum delicatum* S1?
Red-faced Meadow Katydid *Orchelimum concinnum* S2?
Dusky-faced Meadow Katydid *Orchelimum campestre* S2S3
Gladiator Meadow Katydid *Orchelimum gladiator* S5
Black-legged Meadow Katydid *Orchelimum nigripes* S1S2
Common Meadow Katydid *Orchelimum vulgare* S4S5
A Meadow Katydid *Orchelimum silvaticum* S?
Nimble Meadow Katydid *Orchelimum voltanum* S?
Black-striped Katydid *Scudderia fasciata* S1?
Northern Bush Katydid *Scudderia septentrionalis* S3?
Curve-tailed Bush Katydid *Scudderia curvicauda* S4
Fork-tailed Bush Katydid *Scudderia furcata furcata* S?
Broad-winged Bush Katydid *Scudderia pistillata* S5
Texas Bush Katydid *Scudderia texensis Scudderia texensis*
Oblong-winged Katydid *Amblycorypha oblongifolia* S4
Long-tailed Meadow Katydid *Conocephalus attenuatus Conocephalus attenuatus*Short-winged Meadow Katydid *Conocephalus brevipennis*
Slender Meadow Katydid *Conocephalus fasciatus* S5
Black-sided Meadow Katydid *Conocephalus nigropleurum* S4