

## ParkLands Foundation

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[www.parklandsfoundation.org](http://www.parklandsfoundation.org)



## Directors

Roger Anderson	Nancy Armstrong
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## Newsletter June-July 2013

Honorary Directors  
Dale Birkenholz & Guy Fraker

# Shades of Summer: Artists To Discover ParkLands

**Application Deadline: Friday, August 30**

for the

**Juried Watercolor Exhibition**

*Shades of Summer:  
Discover ParkLands*



**Eligibility**  
Professional and amateur artists, over 18 years of age.

**Awards**  
Juror's Choice Award \$500  
Two Merit Awards \$200 each

**Juror**  
Donald K. Lake, watercolor artist and Professor Emeritus of Parkland College, Champaign

**Media and Specifications**  
Watercolors depicting the ParkLands Foundation (Merwin Nature Preserve and Lexington Nature Preserve)

**Jurying**  
All entries are to be submitted on our website at [www.mcac.org](http://www.mcac.org). Each artist may submit up to three entries.

**Entry Fee**  
\$25 entry fee for up to three entries

**September 20 – October 26, 2013**  
**Opening Reception:**  
**Friday, September 20 5pm–7pm**



MCAC Hours:  
Tuesday, 10am - 2pm, Wednesday - Friday, 10am - 5pm, Saturday, Noon - 4pm  
MCAC is supported in part by a grant from the Illinois Arts Council, a state agency.  
601 N. East Street - Bloomington, IL 61701 309.829.0011 [www.mcac.org](http://www.mcac.org)



ParkLands Foundation and the McLean County Arts Center are hosting *Shades of Summer: Discover ParkLands*, a juried watercolor exhibition celebrating the beauty of the Merwin and Lexington Nature Preserves. **ParkLands will hold its annual meeting at MCAC on Sunday, Sept. 22.**

More information about the watercolor specifications and other details is available at [www.mcac.org](http://www.mcac.org) or by contacting curator Claire Hedden at (309) 829-0011 or [Claire@mcac.org](mailto:Claire@mcac.org). Claire is arranging to have painters at Merwin and Lexington Preserves and will be inviting other artists to join them in free Plein Air (outdoor) painting events before the beginning of August. *Watch for more information about the Plein Air events on the ParkLands Facebook page and at [www.parklandsfoundation.org](http://www.parklandsfoundation.org).*

*Gretchen Monti*

## Contributions are welcome for this exciting art exhibit

ParkLands will be splitting the sponsor's fee with the McLean Co. Art Center. If you would like help with our share, please send a check with Shades of Summer in the memo line to ParkLands Foundation, PO Box 3132, Bloomington, IL 61702-3132.

And **Thank You** for supporting this wonderful showcase of area artists and ParkLands' natural lands.

# Lobelia & the Consequences of Living in a Fragmented Prairie Landscape



*Lobelia* hosting Zebra Swallowtail butterfly.

Diane Byers photo

The loss and fragmentation of prairie habitat throughout the Midwest have resulted in many of the current populations of the remaining native plants and animals to occur in small and isolated prairies. This is in contrast to the historical fairly continuous prairie habitat where populations would not be isolated and likely larger due to greater availability of suitable habitat. It is expected that isolated populations will be more affected by random processes due to smaller population size, which can lead to the decline of the population.

Aided by students,

I have been studying the perennial prairie plant *Lobelia spicata*, which occurs in different size prairies; Weston Cemetery Nature Preserve is one of the focal study sites. While many species are expected to have negative consequences associated with a decrease in prairie area and population size, *L. spicata* has potentially unique consequences due to its type of breeding system.

Plant species have a diversity of breeding systems, likely to promote outcrossing (mating between two individuals). *Lobelia spicata* has a gynodioecious breeding system - plants with just female flowers with no pollen and other plants with just hermaphroditic flowers.

We predicted that due to random processes associated with smaller populations, the sex ratio (frequency of female plants) would be highly variable among smaller size populations; having too many female plants may negatively impact seed production of populations.

To test this prediction, many prairies with lobelia populations in Illinois were surveyed to determine

their sex ratio and seed production. We have found the sex ratio is highly variable - 2% to 85% females. The number of plants in a location (population size) and not prairie size (area of prairie) appears to have a greater contribution to this variation in sex ratio.

Population and prairie size are not correlated. While small size prairies usually have smaller populations, the population size may be small in larger sites (depends on the suitability of the prairie for this species and burning frequency). The impact sex ratio has on seed production is that female plants have lower reproductive success (number of seeds per fruit) as female frequency increases, which is not true for hermaphroditic plants. An increase in female plants may result in lower seed production due to pollinator responses to differing rewards.

The flowers of *L. spicata* differ in their reward for pollinators; female flowers have little to no reward (no pollen and limited nectar) and hermaphroditic flowers have rewards (both pollen and nectar). Therefore we predicted that pollinators would visit female plants less frequently.

Through observations at Weston Cemetery Prairie, we found female plants have slightly fewer floral visitors (likely pollinators) for a significantly shorter time period. We have started to examine pollinator diversity at several locations where early results indicate some of the very small native prairies (such as Weston) have a higher diversity of bees compared to the restored prairies.

We have found some potentially negative impacts of decreased population size of *L. spicata*, primarily the variable female frequency with lower seed production when female frequency is higher. However, we also found the surprising result of a high diversity of bees pollinating *L. spicata* at Weston. Future research will be looking at other factors influencing sex ratio (soil nutrients and drought) as well as diversity of pollinators.

Diane Byers

Associate Professor

ISU School of Biological Sciences

# Imperiled Dragonflies Gathering at Chinquapin Bluff Preserve

During the last couple of summers I've started paying closer attention to dragonflies and becoming familiar with the common species locally. It's always exciting to come across and identify a new species. I was especially thrilled to discover the presence of a species previously unrecorded in our area on Park-Lands' properties last summer.

On June 16, 2012, LeeAnn Dirksen and I visited Ridgetop Hill Prairie to check out the Pipevine Swallowtail butterflies and larvae there. While looking at one of these crazy caterpillars, I spotted an interesting looking yellow and green dragonfly perched low in some vegetation on the bluff. I knew it was a species I had not seen before and managed to get some photographs.

Later that night I was able to blow up the photos on a large monitor and study them more closely. After looking through the field guides, I thought it was probably an Eastern Ringtail (*Erpetogomphus designatus*). But this species is uncommon and according to the Illinois State Museum and Odonata Central it has never been recorded in McLean, Woodford or Tazewell counties. I posted the photos on the Internet to share with others that know dragonflies well and solicit feedback. The consensus was indeed an Eastern Ringtail, a female.

Eastern Ringtail belongs to the Clubtail Family (Gomphidae) and is the only species of its genus to occur in Eastern North America. It prefers shallow rivers with sandy or gravel bottoms. The Illinois State Museum lists its status as S2 which is defined as: Imperiled in the state because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extirpation from the state. Although there



*Eastern Ringtail Dragonfly*  
Matt Winks photo

weren't any previous records for the Mackinaw River Watershed, there are records for Logan and Mason counties, which are nearby.

My next encounter with this species was on August 5, 2012. I parked at the Sam Leman Canoe Launch at Sparks Bridge. This is the Chinquapin Bluff Preserve in Woodford County. Because of the intense drought last year, the river was very low so I was able to walk along the sandy shore and on sandbars. Walking downstream I found at least 10 male Eastern Ringtails patrolling small territories. Their territories were no more than 50 feet in diameter while more linear in fashion within the banks of the river.

It was a dazzling show with these little beauties patrolling in low, fast sweeping chases. The males have an apple green thorax while the abdomen is mostly black with yellow rings (hence the name ring-tail) and a bright orange club. They would aggressively chase off any male intruding on the stake they had claimed and then return to the same spot. I think this is evidence there's a good population of Eastern Ringtails at the Chinquapin Bluff Preserve.

I'll be back this summer looking for this species again. It's amazing what you'll find when you start looking.

*Matt Winks*

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## Eaglet Update

"Elvis", the eaglet (4th year hatching) at the Letcher Basin Preserve nest is thriving and has grown quickly from the grey, fuzzy newborn first spotted on April 5. There was only one eaglet this year, possibly due to the March 24th snow, which came when the hatchlings (if there were more than one) were only a few days old. Or, the adult pair thought that feeding three eaglets, as they did last year, was simply too exhausting, and they decided to take it easier this year. As a result, the adults are spending less time at the nest feeding, and Elvis gets the huge nest all to himself. He's been spotted spreading his wings in preparation to fledging from the nest, which should take place sometime in June.



*Mary Jo Adams*



P. O. Box 3132  
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 (309) 454-3169  
*Ecology Action Center*

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## Barry Retires

Barry Brenneman recently resigned from the ParkLands Board of Directors. He served on the board more than 18 years, most recently as Treasurer and Finance Committee Chair.

The Board of Directors approved a resolution at the May 13 board meeting honoring its colleague and friend for his exemplary service.

Nancy Armstrong has agreed to serve as interim treasurer until the election of officers in September.

*Post your appreciation for Barry's service on ParkLands' Facebook page.*

## Out and About

### Invasive Species Control

Fri., June 7, 9 am  
 Hill Prairie  
 Merwin Preserve  
 West Gate

Workdays Leader:  
 Jason Shoemaker  
 309-531-7065

[shoemaj@hotmail.com](mailto:shoemaj@hotmail.com)

### Trail Maintenance

Fri., June 21, 9am  
 Merwin Preserve  
 West Gate

Workdays Leader:  
 Jason Shoemaker  
 309-531-7065

[shoemaj@hotmail.com](mailto:shoemaj@hotmail.com)

### Invasive Species Control

Fri., July 5, 9 am  
 South Savanna  
 Merwin Preserve  
 West Gate

Workdays Leader:  
 Jason Shoemaker  
 309-531-7065

[shoemaj@hotmail.com](mailto:shoemaj@hotmail.com)

### Invasive Species Control

Fri., July 19, 9 am  
 North Savanna  
 Merwin Preserve  
 North Gate

Workdays Leader:  
 Jason Shoemaker  
 309-531-7065

[shoemaj@hotmail.com](mailto:shoemaj@hotmail.com)

Wild Ones program  
 "Insects Aren't the Enemy"  
 Entomologist Phil Nixon  
 Mon., Aug. 12, 7 pm  
 Univ. of Ill. Ext.  
 402 N. Hershey, B'ton  
[http://www.wildones.org/  
 chapters/ilprairie](http://www.wildones.org/chapters/ilprairie)

**NOTE:** Work dates are subject to change. Join Jason's e-mail list or log on to [www.parklandsfoundation.org](http://www.parklandsfoundation.org).