



Volume (2017), Issue 1

Spring 2017

Aerial Herbicide Application for Controlling Bush Honeysuckle

Anybody that has spent much time trying to control invasive species knows that it often feels like a losing battle. With many species it's a very costly battle with a high potential for reinvasion. Bush honeysuckle (*Lonicera morrowii*, *L. maackii*, *L. tartarica* collectively) is no exception. Prescribed fire is the cheapest management tool but has mixed results. In areas with high infestations it can be difficult to get a fire to carry and where a fire does carry the honeysuckle readily resprouts with a fairly high growth rate. Grinding it up with a forestry cutter is very costly and it just resprouts requiring follow up spraying. Cutting with stump treatment or basal bark treatment is also very time consuming. Now there is a new method that is very cost efficient and very effective at killing bush honeysuckle.

So what's the problem with bush honeysuckle? It was originally planted with good intentions, however it has been invading our woodlands and even grasslands for years. It outcompetes the native vegetation and pretty soon nothing can survive underneath it. It gets so thick that it is difficult to near impossible to enjoy our parks and wildlife areas because of the impenetrable wall it creates. Studies have also shown potential negative impacts to wildlife. Robins and wood thrushes nesting



November spraying for honeysuckle. Photo by Todd Gosselink

Management Corner

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Controlling Bush Honeysuckle



**Distinct honeysuckle kill line from aerial spraying
Photo by Todd Gosselink**

in honeysuckle suffer higher nest predation rates. Yellow plumage in birds, such as the yellow shafted flicker, is being replaced with orange in areas with high honeysuckle infestations, where the birds have access to large numbers of berries full of rhodoxanthin pigment.

In the fall bush honeysuckle stays green much later than almost all native tree and plant species. It is very susceptible to glyphosate at this time. This provides a good window of opportunity to spray honeysuckle with very little collateral damage. For small areas a UTV with a sprayer or a leaf blower with a mister can be very effective for killing honeysuckle. However, this isn't very efficient for large difficult to

access areas. This is where we bring in the helicopter. Quite a few people cringe at the thought of aerial spraying but please reserve your judgement till you see the research and the results.

The Grand River and Red Rock Wildlife Units have both been using this technique over the last few years to kill bush honeysuckle. In the fall you wait for a couple of hard frosts to get the native plant community to go dormant and speed up leaf drop on the native trees. The oaks tend to be the last trees to drop. As soon as 80% or more of leaf drop has occurred it's time to watch the forecast for a good day to spray. Sunny days with winds under 10 mph and temperatures of at least 50 degrees are ideal. The last few years the window has been in the first 2 weeks of November. We have been applying 3 quarts/acre of glyphosate with a total spray volume of 5 gallons/acre with a helicopter. Costs can vary widely depending on the contractor and number of acres to spray. In 2014 the cost was around \$65/acre for 50 acres. In 2016 we were able to get the cost down to \$35/acre.

In 2015 Grand River Unit Staff setup 22 1/100 acre study plots and measured percent

Controlling Bush Honeysuckle

canopy cover and live stems per acre. On the Mt Ayr Wildlife Management Area (WMA) live stems per acre dropped from 2136 to 221. This is a 90% reduction in live stems. Canopy cover dropped from 45% down to 2% which is a 96% reduction. Similar results were observed on the Ringgold WMA. The Red Rock Wildlife Unit set up photo points for their monitoring and also showed very encouraging results (see photos below).

So what about collateral damage? Anecdotally the only plants that Grand River and Red Rock staff has noticed impacted are the introduced cool season grasses immediately adjacent to the sprayed areas, and some

minimal impact on sedges. Missouri Department of Conservation was the first to use this technique and launched a fairly in depth study to assess impacts to non-target species. They found no significant impacts to the native tree species except for Carolina buckthorn. They did notice a sedge decline the year following the herbicide application but these sedges seemed to recover the second year following. The Illinois DNR is also studying the technique and has noticed an explosion of native herbaceous plants and also oak seedlings in treated areas that the honeysuckle had choked out prior to treatment.

As with any invasive reinvasion is a big



Red Rock WMA Dunreath Ridge Helicopter Aerial Spraying November 9, 2015. Fall pre-application



Spring post-application. Photos by Todd Gosselink

Controlling Bush Honeysuckle

concern. Luckily the viability on bush honeysuckle seed is only a few years. With this being a fairly new technique it's too early to tell how long reinvasion will take. The plan is to use prescribed fire to kill seedlings and hopefully with a 3-5 year burn rotation repeat spraying will be unnecessary all together or at least very infrequent.

If you have questions or concerns please contact Josh Rusk josh.rusk@dnr.iowa.gov or

Todd Gosselink todd.gosselink@dnr.iowa.gov.

We are also hosting a field day at the Mt Ayr Wildlife Area on July 6th. For more information on the field day please contact Brian Hickman brian.hickman@dnr.iowa.gov.

Josh Rusk is a Wildlife Natural Resource Technician II with the Iowa DNR.

Todd Gosselink is a Wildlife Management Biologist with the Iowa DNR

Invasive Control Cost per Acre

- Mulching/shearing: \$439-850
- Spot spraying: \$70-180
- Goats: \$800
- Helicopter Spraying: \$35-65
- Fire: Priceless

03/28/2016

Breeding Waterfowl Surveys in the Iowa Prairie Pothole Region

Research Corner

Known by many of Iowa's wildlife professionals, the Prairie Pothole Region (hereafter PPR) is a historically important area for breeding waterfowl and many other species of prairie and wetland wildlife. In recent decades, however, this landscape has been drastically altered to accommodate agricultural development. Government programs such as the Conservation Reserve Program (CRP) and Wetland Reserve Program (WRP), as well as land acquisitions using funds from the Federal Duck Stamp Program, North American Wetlands Conservation Act (NAWCA), and others have resulted in the restoration of millions of acres of grasslands and wetlands throughout the PPR. How wildlife, particularly breeding waterfowl, are responding to this drastic change, and what is the best approach to monitor these responses through time, are important questions to consider for habitat and population management.

Since 1998, the Iowa Department of Natural Resources (IDNR) has participated in the annual Waterfowl Breeding Pair and Production Survey, commonly known as the Four-Square-Mile Survey. This survey is administered by the U.S. Fish and Wildlife Service Habitat and Population Evaluation Team to estimate wetland densities



**Helicopter used in breeding waterfowl surveys.
Photo by: Tyler Harms**

and breeding waterfowl populations on National Wildlife Refuges and other federally-owned lands (e.g., Waterfowl Production Areas and federal easements). Each year, the IDNR surveys 36 2x2-mile plots in the northern two tiers of counties in the Iowa PPR by helicopter to count the number of indicated breeding pairs of all waterfowl species (e.g., ducks, geese, and swans). The data collected through this effort are then provided to the U.S. Fish and Wildlife Service to estimate the total number of breeding pairs and the number of breeding pairs by species in the Iowa PPR to monitor breeding waterfowl population trends.

In 2016, the IDNR partnered with Iowa State

Breeding Waterfowl Surveys in the Iowa Prairie Pothole Region

Research Corner

State University to explore expanding the breeding waterfowl survey to the entire Iowa PPR and address key questions related to breeding waterfowl habitat use within focal areas and on both public and private lands. As part of this 3-year project, researchers hope to determine the most effective survey method (e.g., ground-based or helicopter) for breeding waterfowl in the Iowa PPR, evaluate the influence of landscape composition on breeding waterfowl in the Iowa PPR, and compare breeding waterfowl densities

on public and private wetlands. In two field seasons, researchers have surveyed an additional 600 wetlands throughout the Iowa PPR and will survey another 175 wetlands in the final survey season. Species frequently detected on these surveys include Mallard, Blue-winged Teal, Wood Duck, and Canada Goose.

For population monitoring to be effective, data must be reliable and sufficient to satisfy study objectives and provide precise estimates of the parameter of interest. This collaboration between the IDNR and Iowa State University will provide valuable information on breeding waterfowl habitat use to guide management and conservation decisions in Iowa and will develop an efficient survey approach for gathering the most reliable information to monitor breeding waterfowl population trends in the Iowa PPR.



Hen Mallard on an over water nesting structure, Lekwa Marsh.

Photo by: Lowell Washburn

Tyler M. Harms is the Wildlife Research Biometrician for the Iowa Department of Natural Resources and a Ph.D. student in the Department of Natural Resource Ecology and Management at Iowa State University

Trouble ahead for Iowa bats

Species Spotlight: Northern Long-eared Bat

Now you see them, now you don't. Northern long-eared bats may likely vanish from Iowa's



Northern long-eared bat (*Myotis septentrionalis*)
Photo by: Al Hicks, New York Department of Environmental Conservation

landscape in the near future. On April 2, 2015 this species was listed as federally threatened under the Endangered Species Act, due to its extreme susceptibility to the disease white-nose

syndrome. White-nose is caused by the fungus *Pseudogymnoascus destructans* that has been spreading westward across North America since 2006. In the northeast United States, where *P. destructans* was first detected, long-eared bat numbers have declined by up to 99%.

Similar to most other bats in Iowa, the northern long-eared bat (formerly northern myotis, which was formerly Keen's myotis for those of you that took Mammalogy back in the dark ages) is small and brown. It can be distinguished from other similar Iowa bats in the genus *Myotis* (little brown bat, Indiana bat) by its long ears (> 16mm)



Northern long-eared bat with white-nose syndrome, caused by the fungus *Pseudogymnoascus destructans*. Photo by USF&WS.

Trouble ahead for Iowa bats

Species Spotlight: Northern Long-eared Bat

and long pointed tragus (the fleshy projection at the base of the ear).

Like all of Iowa's bats the northern long-eared eats insects. In summer they emerge to feed at dusk from roost sites under the bark of live trees or in hollow snags. I once pulled an old beer can out of a hollow tree in the middle of Lake Miami in Monroe County and suddenly bats were flying out of my canoe. Apparently at least three northern long eared bats can find roosting habitat in an empty can of Bud Light - who knew?

You won't find northern long-eared bats overwintering in your attic (those are generally the big brown bats - *Eptesicus fuscus* or little brown bats - *Myotis lucifugus*). By late fall northern long-eared bats move to caves or old mine shafts, backing in to cracks and crevices in the walls to spend the winter months. When it's cold and snowy outside (and there are no bugs to eat) long-eared bats require hibernacula with no air currents, high humidity levels, and constant temperatures above freezing. This is where the white-nose fungus gets them. In addition to lowered body temperatures, lowered heart rate, and lowered breathing rate, hibernating bats have a lowered immune system response. The fungus *P. destructans*, which thrives in cool,



Swabbing a long-eared bat suspected of having white-nose syndrome.

Photo by: Steve Hicks, USF&WS

moist sites like bat caves, gains a foothold by growing on the sleeping bats during winter. When their weakened immune systems finally kick in the bats are aroused from hibernation and quickly burn through their winter fat reserves with no chance to replenish them. Starved and dehydrated bats litter the cave floor by spring, with 100% mortality found at some sites.

As well as the normal threats to bat populations, such as loss of forest habitat from construction and agricultural practices, northern long-eared bats may face a new challenge in the form of wind farms. Iowa is quickly becoming a leader

**Species Spotlight:
Northern
Long-eared Bat**

Trouble ahead for Iowa bats

in wind-powered energy production and new wind farms are popping up rapidly across the state. Unfortunately wind turbines kill bats and add one more threat to an already threatened species.



**300 foot tall wind turbine at Kirkwood Community College in Cedar Rapids, Iowa.
Photo by: Steven Mally**

Now you may be thinking, “If a bat can twist and turn in flight fast enough to catch a tiny insect, why can’t it avoid being struck by a giant wind turbine blade?” Turns out, bats are extremely sensitive to changes in air pressure. The turning of the windmill blades creates a large enough change in pressure that it causes bats to internally hemorrhage, which leads to the death of the bat by internal bleeding or by collision with the turbines due to disorientation.

This summer, Iowa State University researchers, in cooperation with MidAmerican Energy Company, are conducting an acoustic monitoring project to evaluate migratory movements and habitat use of the northern long-eared bat in Iowa. From May through July 2017 field technicians will deploy Anabat detectors across the



**ISU field technician setting up a microphone on an Anabat detector in a bat flyway.
Photo by: Jeremy French**

Trouble ahead for Iowa bats

Species Spotlight: Northern Long-eared Bat

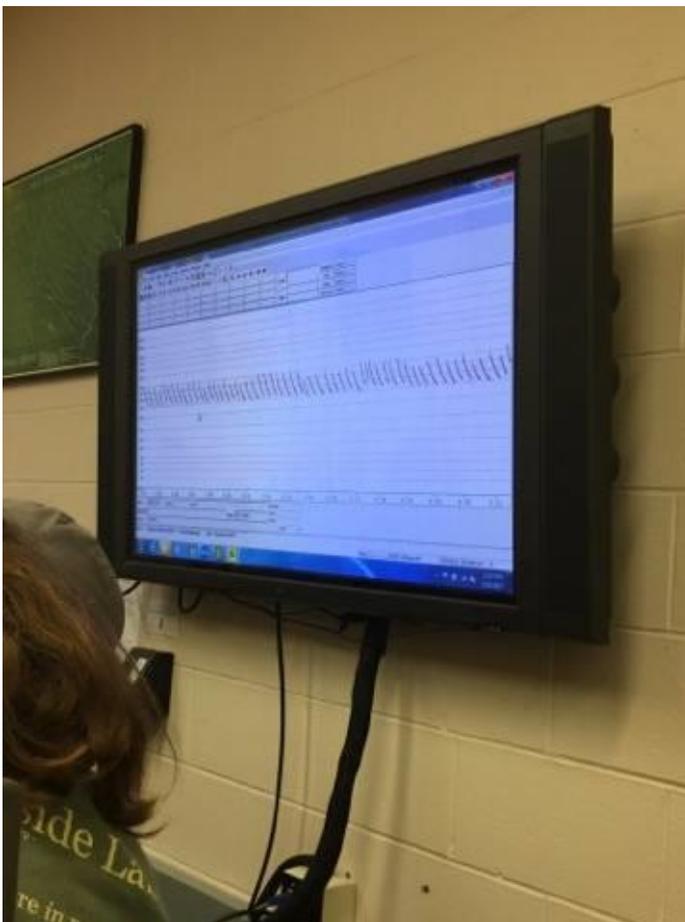
state to record bat echolocation activity. The Anabat detectors are placed in flyways in deeply forested areas that northern long-eared bats may be using. The researchers will be attempting to record communication calls, which are the longest duration of the calls bats make, and



Anabat active bat detector.
Photo by: Titley Scientific

therefore the easiest to analyze for species identification. The results of the work will be used by the Iowa DNR to support the development of a habitat conservation plan for wind power facilities in Iowa.

Pete Eyheralde is an Assistant Professor of Biology at William Penn University.



ISU researchers analyzing bat calls recorded by an Anabat detector.
Photo by: Jeremy French

ITWS at Work....



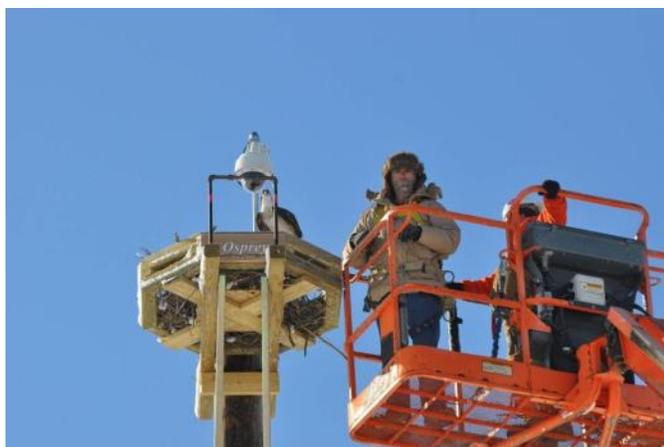
Pat Schlarbaum holding an Osprey for examination.



Bill Clark leading a field day with INHF interns on "Iowa's Loess Hills: faunal cross-roads at the edge of the Great Plains"



David Voigts checking Bluebird nest boxes along the Cedar Valley Nature Trail.



Pat Schlarbaum installing an Osprey nest platform.



Jeremy French determining sex of an eastern garter snake at Lake Red Rock, Iowa.

Minutes of the Iowa TWS Business Meeting February 15, 2017

Iowa TWS Business Meeting February 15, 2017 Quality Inn & Suites, Ames

Meeting Attendance - 104
Start Time - 1:34 pm
End Time – 2:29 pm

Call to Order - 1:34 pm – Pete Eyheralde, President

Election Results and Welcome of New Officers – Pete Eyheralde

President-Elect: Pete Hildreth def. Matt Dollison
Secretary-Treasurer: Dusten Paulus def. Shannon Hansel
Member at Large: Marlene Ehresman def. Curt Kemmerer

OFFICER REPORTS

Secretary: Curt Kemmerer

Reminded the membership that the minutes had been sent out to current members via email
Read a condensed version of the business meeting minutes from the 2016 Winter Meeting held at Quality Inn & Suites in Ames.
Bill Clark motioned to approve the business meeting minutes from the 2016 Winter Meeting. Todd Bogenschutz second. Motion carried.

Treasurer: Curt Kemmerer

Reminded the membership that the treasurer's report had been made available during the day in hopes that everyone has had a chance to see it. Told anyone with questions to contact him.

Gave a condensed version of the treasurer's report from 2 February 2016 through 8 February 2017 (see attached).

Stephanie Shepherd motioned to approve the treasurer's report as read. Greg Schmitt second. Motion carried.

COMMITTEE REPORTS

Audit Committee: Travis Russell-Chair

Travis was not present. Nothing to report.

Awards Committee: Stephanie Shepherd-Chair

Stephanie discussed what the committee expects from members who submit a write-up for any award nominations. She proposed a November 1st deadline for nominations moving forward. She put out a request for new members to the committee.

Conservation Review Committee: Matt Dollison-Chair

Matt was not present. Nothing to report.

Education and Information Committee: Pete Eyheralde-Chair

Pete asked the membership to provide more submissions for the newsletter. He mentioned the upcoming legislative day at the Capitol, and urged anyone interested to attend.

Membership Committee: Dusten Paulus-Chair

Dusten reported that the committee had an overall slow year. This current committee started strong when it formed, and they have noticed results of their earlier membership drive actions, citing the attendance of many students to the meeting. He put out a request for new members to the committee and welcomed any new ideas to increase membership.

Minutes of the Iowa TWS Business Meeting February 15, 2017

Resolutions and Public Statements: Brain Sauer-Chair
Nothing to report.

Nominations and Elections: Tyler Harms-Chair
Elections results were read earlier. Tyler thanked both the new officers and those that ran against them for their willingness to serve.

OLD BUSINESS

Lead Ammunition Discussion/Updates

Terrie Hoefler from SOAR relayed that they may be partnering with Blank Park Zoo and Drake University to create an outreach program to reach a large audience. They may be looking to have a bald eagle day and a public survey in the near future.

Terrie reported that all eagles that came in to SOAR in 2016 had clinical levels of lead poisoning. She proposed that TWS and SOAR partner to provide copper ammo to DNR officers for euthanizing vehicle struck deer.

Jon Judson strongly encouraged TWS to promote a lead ammo ban for Iowa. He felt that TWS has been too passive and needed to take action. The copper rounds to officers idea is just a start.

Angi Bruce suggested that DNR officers need to be brought into the conversation before moving forward with that program.

Marlene Ehresman motioned that TWS approach DNR Law Enforcement regarding the use of copper rounds for wildlife euthanasia. Bill Clark second. Motion carried.

Jon Judson asked for the Chapter's lead statement committee to put out an Iowa specific statement, which includes action items, to be voted on by membership at the next business meeting. Tyler Harms agreed that we should focus on the action part of the process – we already have a statement.

Bill Clark said we should review the current committee report, and get it back on track by following up on actionable items.

Dale Garner noted that there is currently a Democrat-led bill proposal in the Senate that would require non-toxic shot for dove hunting. He said this bill is not likely to move at all.

ICA Membership Renewal

Pete asked for any discussion or motions related to our membership in ICA.

Stephanie Shepherd motioned to renew our membership at \$2,500. Mike Griffin second. Motion carried.

Stephanie proposed that the Chapter designate an individual as our official ICA representative (Jeff Glaw and Todd Bogenschutz volunteered to serve)

NEW BUSINESS

New Membership Management Tool

Tyler Harms discussed his proposal to utilize Wild Apricot as the Chapter's new web-based membership service. He described the current systems in place and the benefits of going to Wild Apricot. He estimated the annual cost to be \$500-\$600.

There was group discussion on whether or not TWS National could provide a similar service. It was thought that TWS National is not an option.

Bill Clark asked Tyler to get a quote for cost and services included from Wild Apricot.

Mike Griffin motioned to allow the Executive Committee to research the Wild Apricot option and to subscribe to the service for up to \$700. Dusten Paulus second. Motion carried.

Minutes of the Iowa TWS Business Meeting February 15, 2017

Support for DNR License Fee Increase

Pete E. asked for discussion on TWS supporting DNR license increases.

Mike Delaney -representing the Izaak Walton League of America – mentioned that the ICA, the IKES and others have met and discussed details, such as how much specific licenses should increase.

Mike Griffin reminded the group that the Chapter President can speak on the behalf of the TWS membership (such as writing letters to legislators), and encouraged the current President to do so.

Dale Garner agreed that having groups (like TWS) voice their position is a good idea.

Pete E. said that he would move forward with registering TWS's support for license fee increases

REAP Alliance Update

Karen Kinkead discussed the merit of REAP Alliance membership.

She noted the upcoming REAP lobby days at the State Capitol.

She mentioned that there is interest in changing the formula, essentially switching the allotments for Open Spaces and Public Land Management.

Doug Sheeley noted that there is already a House bill filed that would make that formula change

Dusten Paulus motioned to renew membership with REAP Alliance for \$150. Shannon Hansel second. Motion carried.

ANNOUNCEMENTS

Iowa TWS Conservation Hall of Fame Award

Stephanie Shepherd informed the group that the Hall of Fame award is being awarded to Jim Wooley. Jim was not able to attend the 2017 winter meeting and will be officially presented with the award at the 2018 winter meeting.

Fall Workshop Announcement

Pete E. announced that the 2017 Fall Workshop will be held at Port Louisa NWR in early September and will focus on herps.

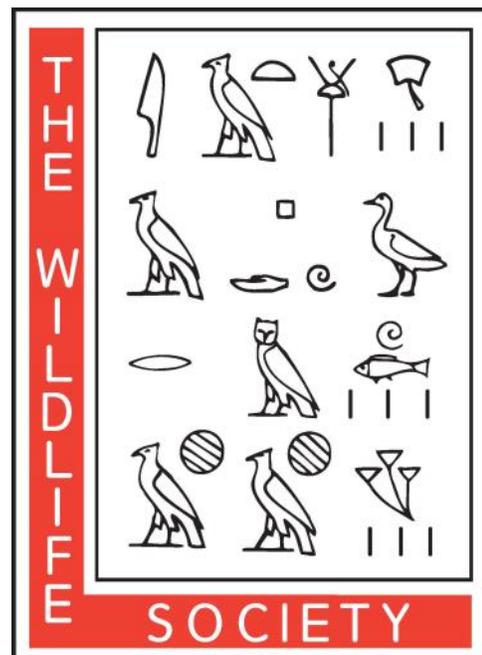
ISU Student Chapter Conclave

Jacob Hurd, ISU Student Chapter President, announced that they are looking forward to sending approximately 20 students to 2017 Conclave hosted by Purdue University. He anticipated costs to be \$80 per student. He spoke on the benefits of attending conclave, and agreed that sponsored students would participate in Iowa Chapter events and membership.

Stephanie Shepherd motioned to support the ISU Student Chapter Conclave request with \$1,000. Jon Judson second. Motion carried.

Tyler Harms made a motion to adjourn. Dave Kutz second. Motion carried.

Meeting Adjourned – 2:29 pm



THANK YOU



The ICA would like to thank Iowa TWS for your recent donation toward our efforts on behalf of natural resources at the State Capitol. Without your help, the daily monitoring of legislative conversations and actions that impact Iowa's natural resources could not occur. Your assistance makes it possible to hold off detrimental legislation, and to actively seek changes that will bring progress for Iowa's fish and wildlife, water quality, and recreation. Your valuable help is appreciated. We encourage you to be a strong voice for natural resource issues at every opportunity in local legislative forums with elected officials and candidates seeking office.

2017 Iowa Chapter The Wildlife Society Committee Chairs

Audit: Travis Russell
Awards: Stephanie Shepard
Conservation Review: Matt Dollison
Education and Information: Pete Eyheralde
Membership: Dusten Paulus
Resolutions and Public Statements: Brain Sauer
Program: Pete Hildreth
Nominations and Elections: Greg A. Schmitt

Upcoming Events

- **Tallgrass Prairie and Oak Savanna Fire Science Consortium Field Day**—June 21, 9:30am Conard Environmental Research Area, Grinnell College.
www.tposfirescience.org
- **Project A.W.A.R.E.** - July 10-14, 2017 Cedar River—Mitchell and Floyd Counties
- **Iowa TWS Fall Workshop** - Wednesday September 6, 2017, Port Louisa National Wildlife Refuge
- **National TWS Conference** - September 23-27, 2017. Albuquerque, New Mexico
www.twsconference.org
- **Central Plains Society of Mammalogists Annual Meeting**—October 13-14 Dubuque, IA , <http://groupsplaces.com/cpsm/>

Pete Eyheralde
Newsletter Editor
(eyheraldep@wmpenn.edu)

2017 Iowa Chapter The Wildlife Society Executive Committee

President: Pete Eyheralde
President-Elect: Pete Hildreth
Past President: Greg A. Schmitt
Secretary-Treasurer: Dusten Paulus
Member at Large: Marlene Ehresman