

Wildlife Sightings

Newsletter of the Iowa Chapter of The Wildlife Society



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Meet your New Officers!

Steven J. Dinsmore (Member-at-Large)

Stephen J. Dinsmore is an Associate Professor (Wildlife Ecologist) in the Department of Natural Resource Ecology and Management at Iowa State University, where he has been employed since 2005. He received degrees from Iowa State University (B.S., Fisheries and Wildlife Biology; 1990), North Carolina State University (M.S., Zoology; 1994), and Colorado State University (Ph.D., Fishery and Wildlife Biology; 2001) and was previously

employed as an Assistant Professor (Avian Ecologist) at Mississippi State University (2001-2005). His broad research interests are in the areas of avian ecology and population biology. Recently, he has focused on topics such as avian nest survival modeling, survival estimation, and sampling techniques, and he currently supervises four graduate students working in these areas. He also teaches two undergraduate courses (Ecological Methods and

Ornithology), one graduate course (Avian Ecology), and teaches in the Study Abroad program (Natural History of Costa Rica) at Iowa State University. He has regularly attended both the Iowa Chapter and national meetings of The Wildlife Society and wants to become an Iowa Chapter board member to strengthen the ties between Iowa State University and other Iowa wildlife professionals.

Terry Hainfield (President-Elect)

As I approached my 30th anniversary working as a wildlife professional, I faced the bittersweet event of sending my youngest to be a freshman at Drake University this past fall. I most certainly miss Rachel's high school participation in activities but I am ready for her to spread her wings. This once again allows me to crank up my passion a notch or two for worthy conserva-

tion measures. I am the wildlife management biologist for the Iowa DNR's Upper Iowa Wildlife Unit. I am extremely interested in Iowa's Water and Land Legacy legislation and have devoted my personal time to help that constitutional amendment pass. I am now looking forward to implementation of this important

piece of legislation. I believe TWS Iowa Chapter can help lead the movement for implementation and I believe TWS should be the voice for wildlife professionals and sound wildlife science. My experience, commitment and passion for the profession will help me lead the TWS.

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Compass plant in bloom at Neil Smith National Wildlife Refuge.

Call for Award Nominations!



In 2013 the Iowa Chapter revised the Bylaws to make them more distinct and to make nominations and selection more practical. There are two awards.

Iowa Conservation Award of Merit. This was revised to be an award for a professional or non-professional for any outstanding single or continuing contribution. The Bylaws state that this award recognizes an individual for outstanding contributions in the field of wildlife conservation including education, enforcement, management, policy and research. It may be bestowed on any individual who is, or has been active in the State, whether or not he/she is a natural resource professional. The award is designed to recognize a wide variety of deeds from a single outstanding act to long term commitments or dedication to wildlife conservation.

Iowa Conservation Hall of Fame Award. This was revised to be the life-time achievement award for natural resource professionals. The Bylaws say that this is the highest award that may be bestowed upon an individual by the Iowa Chapter of The Wildlife Society. The award is designed to recognize outstanding and continued contributions by a natural resource professional through education, enforcement, management, policy, and research that

have ultimately impacted Iowa's wildlife resources. The award may be bestowed to honor individuals ranging from local to national influence but the person must have been associated with Iowa at some time in their career.

By visiting the Awards page on our Chapter website, iowatws.org, you can see the individuals upon whom these awards have been bestowed. Nothing in the Bylaws precludes an individual from receiving both awards, or from receiving the Award of Merit more than once.

Nominations are now being accepted for 2013 awards. Please submit a nomination by following the link on the webpage to the nomination form. Nominations must be received by **5 PM, October 14, 2013** to be considered. Be sure to enough detail so that the Awards Committee can fairly evaluate the nomination and write a suitable citation to accompany the award. You may be asked to provide more details about the nominee's achievements and career. You may be asked to provide the names of individuals who would endorse the nomination. If you have questions, contact the Awards Committee chair, Bill Clark (wrclark@iastate.edu).

Photo credit: Common grackle, United States Fish & Wildlife Service.

Chapter Display Banner is available for use!

The Education and Information Committee has created a new display banner to be used by members to promote Iowa TWS. This banner is small, light-weight, and very portable. It provides information on our organization including our mission statement and also includes photos of wildlife professionals in the field. It has already traveled to events such as the Iowa Association of Naturalists meeting and the IWILL Lobby Day at the State Capitol. If you are interested in obtaining the display banner to be used at an event, please contact Tyler Harms by email (harmesy@iastate.edu) or phone (515-509-6333). Let's promote our great organization!

Call for papers open for Midwest Fish & Wildlife Conference!

The annual Midwest Fish & Wildlife Conference is being held January 26—29, 2014, in Kansas City, Missouri. The call for papers is open until October 11, 2013. This is a great opportunity to share the work that you conduct with fellow The Wildlife Society and American Fisheries Society members in the region. For details, or to submit an abstract:

<http://www.midwestfw.org/html/call.shtml>



Iowa TWS Chapter display banner that is ready to be used at events to promote the Chapter, its activities, and members.

IOWA DNR FOREST WILDLIFE STEWARDSHIP PLANS

Management Corner

The Iowa Department of Natural Resources (IDNR) is the state government agency whose vision is to lead Iowans in caring for their natural resources. Conservation and enhancement of natural resources to ensure a legacy for future generations is part of the IDNR's mission. Within the IDNR, the Wildlife Bureau manages more than 350,000 acres of land as Wildlife Management Areas (WMAs) for a variety of public users. Many of these WMAs, especially in southern and northeastern Iowa are either partially or mostly forest covered. These forests, if properly managed, provide a unique opportunity for the IDNR to carry out its mission by demonstrating to the public the wise use (conservation) and enhancement of these valuable resources for wildlife.

In recent years, the wildlife bureau has recognized and acted on the need for Forest Wildlife Stewardship Plans (FWSPs) to properly manage their forest resources.

Beginning in 2005, the Wildlife and Forestry Bureaus bonded in a cooperative partnership to develop and implement long range plans on WMAs. Until this time, the need to manage forests with comprehensive plans on public lands was known but obstacles kept the collaboration from happening. These new FWSPs are providing sustainable management of the forest resources while creating critical habitat for wildlife species of greatest conservation need (identified in the Iowa Wildlife Action Plan) while keeping common species common.

Some forest stands may take 120 years or more to mature, a time span that may extend through the careers of several managers. This slow but relentless change requires managers to plan over the long term and leave a written record of these plans.

There were 3 main factors emphasizing the need for FWSPs for WMAs:

- 1) The continued succession of many forest stands past the mast producing oak-hickory stage to the shade tolerant stands of maple and basswood.
- 2) The loss of early successional forest stands and associated wildlife species.
- 3) A lack of proper management to secure mature forest stands with appropriate overstory and understorey tree species for associated forest-interior wildlife species.

HOW IS THE FWSP DEVELOPED?

Biologist/Forester Interaction

Management of IDNR WMAs is a cooperative effort by the wildlife and forestry bureaus to enhance state owned areas for a diversity of wildlife species. The property is walked by the biologist and forester and discussions are conducted in the field to help form the plan.

Inventory

When the WMA forests are walked, "stands" are created on the map. "Stands" are blocks of forest compartments that have similar trees, shrubs, age class, topography, aspect, and management system (see below). The biologist and forester discuss the options for each stand and how management of that stand will fit the overall objectives of the management for the area.

WMA Objectives

The objectives of a particular WMA will be determined by many variables. Some of those variables considered would include: tree and shrub species and age composition, topography, size of the WMA, amount of forest edge, past management (or not), viewsheds, etc.

Management Systems and Prescriptions

Forester recommendations are designed to manage the stand to reach the goals and objectives of the bi-

IOWA DNR FOREST WILDLIFE STEWARDSHIP PLANS (con'd from page 4)

ologist. Management prescriptions are developed in a priority fashion.

One of five management systems is specified for each stand. This identifies the overall management system for that stand and designates the "road map" for what work will take place on the site in the future.

Each management system is described in detail in the plan. A brief description of each management system is as follows –

Early Successional -

Areas are clearcut every 15 years to maintain young, high stem density habitat. These areas are generally on the forest edges to feather the edge.

Even Age -

Shade intolerant trees such as oak, shagbark hickory, and walnut require full sunlight to grow. Even age management involves a clearcut at some point to create the full sunlight condition. Even age stands are clearcut every 125 years, thus creating early successional habitat for the next 15 years.

Uneven Age -

Uneven age management can be used to manage species that will grow in shade such as hard maple and basswood. Every 20 years, the stand can be selectively harvested to remove the mature and defective trees. The openings are filled with young maple and basswood, creating an all age or uneven age forest.

Open Woodland/Savanna-

The Savanna and Open Woodland management system would have a goal of, say, one tree per acre (Savanna) up to 60% tree canopy (Open Woodland). Savanna habitat overlaps Open Woodland habitat somewhere in the 25% canopy to 45% canopy. Management to reduce current 100% tree canopy to less than 60% in proper lo-

cations and conditions will create a much needed and often missing habitat. Oak forests with fire management would often be used to secure and maintain the Open Woodland/Savanna habitats.

Viewshed -

Viewsheds can either be steep slopes, high recreational use areas, or buffers along the streams and rivers where management will be minimal. Many viewshed areas will have the opportunity to turn into Old Growth habitat.



NRCS

Writing the Plan

The FWSPs are written with maps of all of the stands on the WMA. The objectives are stated, the composition of each stand is described, and the prescriptions for management are presented in a priority-based fashion.

Review

The FWSPs are reviewed by a host of different IDNR Bureaus and individuals make comments for improving the plan. A public meeting is conducted to describe why the plans are developed, why the proposed management should occur, and what management will happen on the WMA.

IOWA DNR FOREST WILDLIFE STEWARDSHIP PLANS (con'd from page 5)

FWSPs are then posted on the IDNR website for access by anyone.

Implementation

Projects are selected on a priority basis and bid to local contractors. It should be emphasized that income generated from timber sales is not the goal behind FWSP's. The first goal of the plans is to properly maintain the natural resources on the public land on a sustainable basis, while creating proper wildlife habitat. Harvesting is conducted to regenerate stands to desirable species and to achieve a desirable diversity of tree sizes and species. However, any income derived from timber harvesting is reinvested into the area to thin young stands, convert areas to more desirable species and otherwise manage the forest for wildlife. Without this reinvestment, there is little chance that the Wildlife Bureau budget would be able to afford the costly recommendations in these plans. Harvesting is a very minimal portion of the plans. The majority of work recommended is directed at thinning young stands so the oak is not shaded by other trees and at removing undesirable species to encourage regeneration of desirable trees.

Monitoring

One of the last steps of the plan is to monitor the responses of management activity. The FWSPs are adaptive management plans where adjustments of management can change when the monitoring suggests using different techniques.

Creating long-term management plans for IDNR WMAs had been long overdue. The goal of having FWSPs on all WMAs with forests will take time but the first steps of creating plans and implementing better forest management for wildlife has been very encour-

aging at this point. Continue following the process of FWSPs in the years to come to see the improvements for Iowa's wildlife resources.

Terry Hainfield is the wildlife management biologist for the Iowa Department of Natural Resources' Upper Iowa Wildlife Unit.



Amphibian egg mass demonstrating reproduction in temporary woodland pond.

Iowa's Epizootic Hemorrhagic Disease Outbreak - 2012

The epizootic hemorrhagic disease (EHD) outbreak that hit the deer herd in 2012 is the worst on record for Iowa. Reports of 2,974 suspected EHD deaths from 63 counties were received by November 30 with several lab confirmations from the outbreak area.

EHD is caused by a virus that is spread by a biting midge. Normally, Iowa's climate is not conducive for EHD outbreaks but the abnormally hot, dry weather this past summer set the perfect stage. The hot temperatures benefited both midge and virus life cycles. The drought conditions caused water bodies to shrink, making more mudflat breeding habitat for the midge while also concentrating deer around the remaining water sources. Once infected, the virus multiplies very quickly within a deer causing a high fever, breakdown of cell walls, and dehydration. Dead and sick animals will often be found near water. Most deer in Iowa die one to four days after the fever begins. EHD outbreaks occur in late summer or early fall and end once killing frosts destroy the midge populations. In the Midwest, as one moves north,

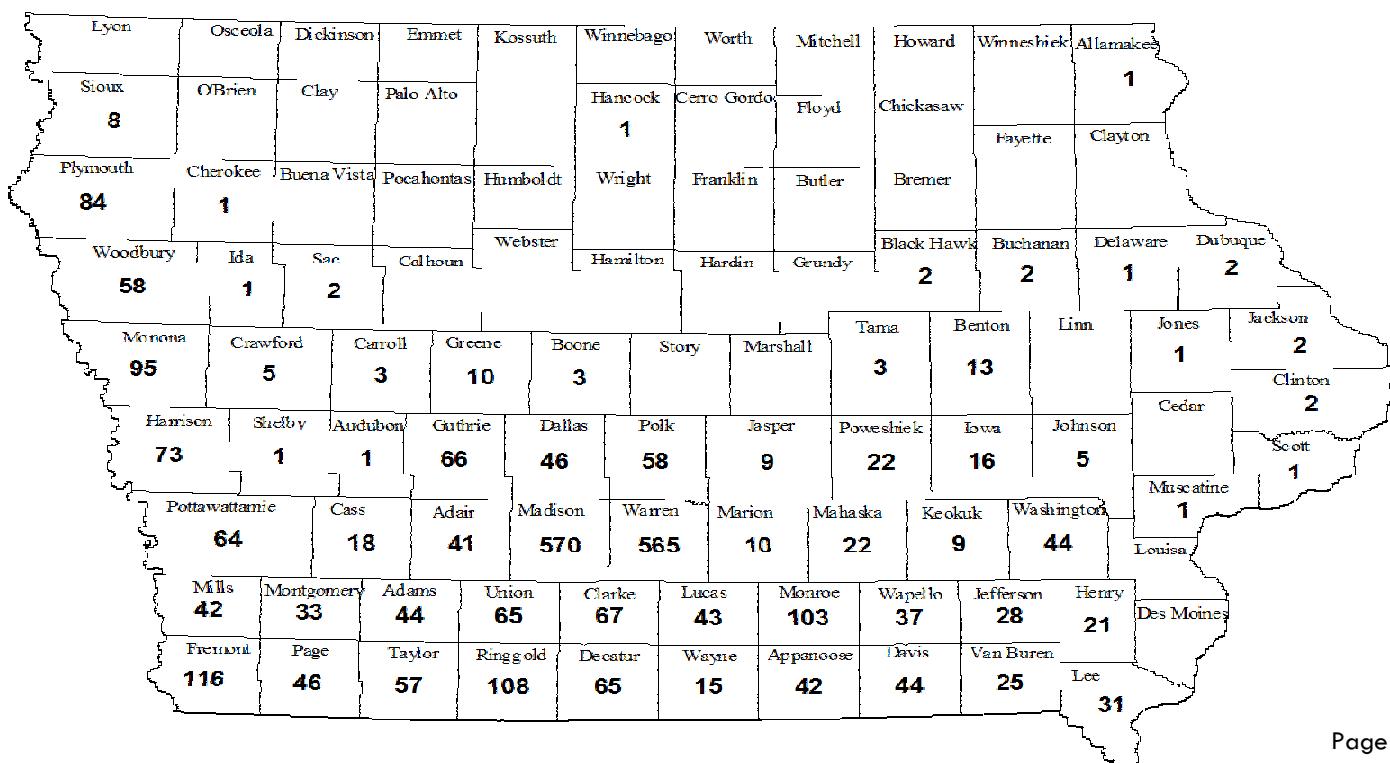
the potential for an EHD outbreak decreases but the severity increases. To learn more about EHD, please visit <http://www.vet.uga.edu/scwds/pdfs/HD.pdf>.

Despite the dramatic appearance of EHD-associated mortality, the deer herd is fully capable of rebounding from any localized impacts the outbreak caused. Significant outbreaks are sporadic in Iowa (the three most significant occurred in 1988, 1998, & 2012). In most years very little or no deer mortality is attributed to the disease.

The reported deaths are not an estimate of the deer mortality caused by EHD but may be of use as an index. The information will be used in conjunction with the 2012/13 harvest information, 2012 bowhunter observation survey, 2012 road kill survey, and the 2013 spring spotlight surveys to assess the extent and impact of the mortality caused by the EHD outbreak.

Tom Litchfield is the deer biologist for the Iowa Department of Natural Resources.

Reported EHD Deaths Through November 30, 2012



Chronic Wasting Disease

Chronic wasting disease (CWD) is an invariably fatal disease of cervids (thus far elk, mule deer, white-tailed deer, and rarely moose). CWD is a member of a group of diseases called Transmissible Spongiform Encephalopathies (TSEs). Other TSEs include Bovine Spongiform Encephalopathy (BSE, aka "mad cow" disease), Creutzfeldt-Jakob disease (CJD) in humans, and scrapie in sheep and goats.

CWD is the only TSE known to affect free-ranging wildlife, but its origin is likely to remain unknown. CWD was first discovered in captive cervids and then in free-ranging cervids in Colorado and Wyoming. It has subsequently been detected in both free-ranging and captive cervids in several states and two Canadian provinces. CWD was also identified in South Korea as the result of an infected captive deer imported from Canada.

CWD is caused by prions which are very unusual disease agents because they are proteins. Prions (PrP^c) have been identified as normally occurring proteins in all mammals thus far examined, although their function is unclear. The disease-causing prion (PrP^{Sc}) differs from the normal PrP^c in its secondary structure (shape). While the mechanism of infection and PrP^{Sc} replication is unknown, PrP^{Sc}'s abnormal shape makes it resistant to the processes that normally degrade PrP^c. As a result, PrP^{Sc} accumulate in host tissues, eventually making their way to the brain where they cause lesions ultimately resulting in death. Infected animals likely transmit the disease for many months prior to exhibiting clinical symptoms associated with PrP^{Sc} having reached and begun to damage the brain (i.e., wasting, poor balance, drooling).

The exact mechanisms of CWD transmission are not known. Evidence suggests CWD is transmitted by close contact as well as when animals contact environments contaminated with PrP^{Sc}. PrP^{Sc} have been detected in numerous excretions and secretions including saliva, urine, feces, blood, and antler velvet. PrP^{Sc} are also found throughout the organs and tissues of infected animals including tonsils, lymph nodes, spleen, cardiac muscle, skeletal muscle, and the brain. While CWD is always fatal, the timeframe

appears to vary as a function of an animal's genotype at the Prion gene (PRNP) though all genotypes of elk, mule deer, and white-tailed deer investigated thus far are susceptible to CWD.

Evidence from lab studies and infection of animals introduced to facilities formerly occupied by infected animals strongly supports the persistence of infectious PrP^{Sc} in the environment. Several lab studies have demonstrated the PrP^{Sc} binds to soils where it persists and remains infectious. To date, PrP^{Sc} has not been isolated from the wild though areas where cervids congregate and/or deposit secretions and excretions (e.g., mineral licks, scrapes, rubs) are hypothesized to be important reservoirs.



Research suggests that other wildlife species are likely exposed to CWD when they consume CWD-infected carcasses or encounter excretions and secretions of infected cervids. However, while laboratory studies have been able to generate infection in some species (i.e., cattle, voles, squirrel monkeys), thus far, CWD has only been naturally detected in cervids. While human susceptibility to CWD is unclear, laboratory studies suggest that there is a considerable species barrier between cervid PrP^{Sc} and humans.

Impacts of CWD to captive populations are clear. The disease has the potential to infect all animals in a captive facility, and the environmental persistence of prions makes these facilities at long-term risk of reinfection. Impacts of CWD to free-ranging cervids are less well-known, and likely to vary among populations. Decreases in mule deer populations have been observed in a high prevalence area in Colorado, and

Chronic Wasting Disease Disease (CWD) (con'd from page 8)

potential impacts to recruitment have been observed in mule deer in Colorado and white-tailed deer in Wisconsin.

A variety of management actions have been taken in an attempt to control and contain CWD including efforts to reduce cervid populations and targeted removal of animals exhibiting CWD symptoms. Live tests for CWD including tonsil and rectal biopsies have been developed, but are logistically complicated to implement. Control and containment of

CWD is hampered by the long incubation period in which animals are likely capable of transmitting disease prior to the appearance of symptoms as well as the apparent long-term environmental persistence of infectious PrPSc.

Julie Blanchong is an assistant professor in the Natural Resource Ecology & Management Department at Iowa State University. Her research focuses on wildlife disease ecology.



Species Spotlight

Blue-spotted Salamander

"Skin that looks like enamelware used on camping trips" are the words that best describe the blue-spotted salamander. This rare species (listed as Endangered in Iowa) is small, nocturnal, and silent. It's no wonder that it's seldom observed, even in states such as Wisconsin where it's fairly common.

These secretive creatures make their home in deciduous woodlands and are limited to just two counties in Iowa in the northeastern quarter of the state.

Blue-spotted salamanders breed in the spring, with males being the first to emerge from hibernation and make their way to breeding ponds. The females follow soon thereafter, and are courted by eager males that rub themselves up against the females and engage them in a courtship, or nuptial, dance. Once a female responds and dutifully follows the male, he deposit sperm-filled packets, known as spermatophores on the substrate. Females use muscles around their cloacas to pick up the packets and thus, complete the internal fertilization process. Soon thereafter, females lay their eggs in the water. These eggs will hatch into pond-dwelling larvae that will feed on aquatic invertebrates until the time that they metamorphose into

adults, typically in July.

After breeding season, the adults leave the ponds and spend their active seasons on the woodland floor, where they feed on insect larvae and earthworms.

Blue-spotted salamanders are members of the mole salamander family, or Ambystomatidae. These animals spend most of their time either underground or under leaf litter where conditions are typically cooler and moister than in other microhabitats.

Hartman Reserve Nature Center has been researching the feasibility of releasing Blue-spotted Salamanders (BSS) into the Hartman Bluff State Preserve. After consultation with Iowa DNR and the Henry Doorly Zoo, it was determined that the chance of success is great enough to proceed. Blue-spotted salamander larvae have already been collected from George Wyth State Park and are currently being raised in a lab at the Henry Doorly Zoo. Assuming that laboratory breeding is successful, we request permission to release in the state preserve in spring 2013 and 2014. Monitoring will continue until a stable population is determined to exist.

Rebecca Christoffel is an assistant professor in the Natural Resource Ecology & Management Department at Iowa State University.

UPCOMING EVENTS:

Loess Hills Prairie Seminar—May 31—June 2, 2013. Loess Hills Wildlife Management Area NE of Onawa, Iowa. For information, http://www.nwaea.k12.ia.us/en/programs_and_services/loess_hills_prairie_seminar/.

Iowa Prairie Conference—July 18-20, 2013. Luther College, Decorah, Iowa. To register and for more information, <http://www.luther.edu/iowaprairieconference/>.

Annual Midwest Partners in Amphibian and Reptile Conservation Meeting—August 2-4, 2013. Concordia University, Mequon, WI. For registration, <http://www.mwparc.org/meetings/2013/>.

Joint Meeting of American Ornithologists' Union and Cooper Ornithological Society—August 13-17, 2013. Field Museum of Natural History, Chicago, IL. For registration, <http://fieldmuseum.org/explore/aucos-2013/american-ornithologists%E2%80%99-unioncooper-ornithological-society-2013>.

The Wildlife Society Annual Conference, October 5-10, 2013. Downtown Hyatt, Milwaukee, Wisconsin. For registration and other information, <http://wildlifesociety.org/>.

Joint Society for American Foresters and The Wildlife Society workshop—October 2-3, 2013. Decorah area, Iowa. "Quality, abundant wildlife and healthy forests"

Midwest Fish & Wildlife Conference, January 26-29, 2014. Sheraton Kansas City, Kansas City, Missouri. For registration and other information, <http://www.midwestfw.org/>.



Blue-spotted salamander (*Ambystoma laterale*) is a rare inhabitant to Iowa forests and is limited in its distribution in the state.

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2012-2013 IA Chapter The Wildlife Society Education and Information Committee Members

Tyler Harms (Chair)

Pete Eyheralde

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Shannon Hansel

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We're also online!
Check out Iowa TWS at

<http://iowatws.org>