

## IOWA CHAPTER OF THE AMERICAN FISHERIES SOCIETY NEWSLETTER

March 25, 2011

## LATERALLINES



**New Master Angler Award**  
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**Iowa Walleye Programs**

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**“Nothing  
makes a fish  
bigger than  
almost being  
caught”**





# Newsletter of the Iowa Chapter of the American Fisheries Society Volume 29, Number 1

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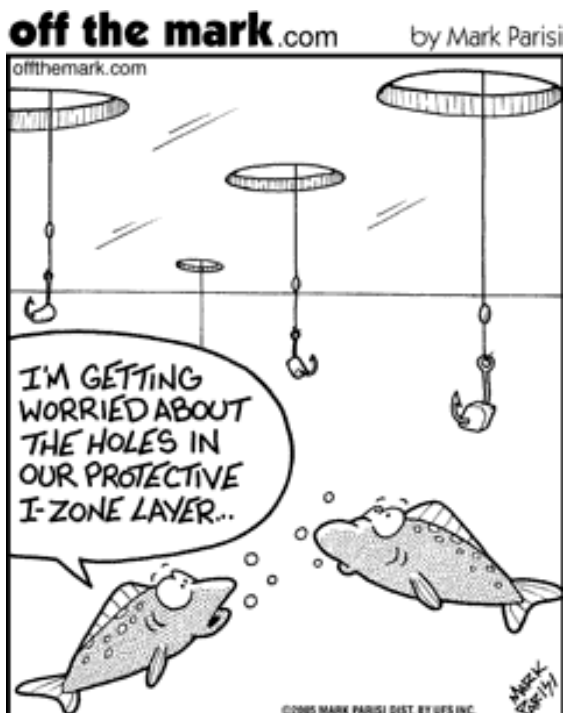
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Resolutions.....Don Herrig/  
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REAP.....Ben Dodd  
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Nominations.....Donna Muhm  
REAP.....Ben Dodd  
Best Paper .....Chad Dolan  
Newsletter Editor.....Kim Hawkins



## PRESIDENT'S CORNER—Andy Fowler

We have the start of the new field season upon us and things seem to be getting busier every day with field work. I imagine most of us started into this field because of our love of this type of work and I am certainly no exception. Lately, whether it is tagging walleyes at the Rathbun hatchery or traversing tangles of brush while applying rotenone on the Lake Hawthorne watershed, it has been really nice for me to step away from the computer for awhile. However, while our days may be getting busier with field work, there are some issues in our offices that always need taken care of. I strongly urge every one of you to address the issue below.

Recently, at our business meeting this January I urged everyone to write to Iowa State University in support of increasing fisheries staff in the Department of Natural Resource Ecology and Management. Many of you know that Mike Quist's recent resignation left an empty slot in the department, a slot that is not scheduled to be filled again due to budget constraints. The fisheries world always needs qualified folks to recruit into the profession and replacing Mike Quist's old position at Iowa State is a big step towards meeting that recruitment goal. Therefore, I strongly urge all of you again to write letters in support of this. The letters should be sent to College of Agriculture and Life Sciences Dean, Wendy Wintersteen and NREM Interim Department Chair, Steven Jungst. See addresses below... One point of concern to mention is that a more recent resignation than Mike Quist was refilled.

Thank you for considering writing these letters; it is an important goal of our organization to promote the recruitment of qualified individuals into the profession. I wish the best for everyone's start to the field season.

Take care!

Andy Fowler

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# Seasonal Harvest Patterns and Exploitation of Walleye at Big Creek Lake

Ben Dodd and Andy Otting, Iowa DNR

Big Creek is an 883 acre lake located 15 miles north of the Des Moines Metro. This lake receives intense angling pressure (116 hrs/ac in 2003) and is a high priority resource in central Iowa. Unfortunately, anglers have become dissatisfied with the walleye fishery in recent years. Low density (1.2 fish/ac) and truncation of walleye size structure at the current minimum length limit (15") supported angler concern. The overall objective of this study is to evaluate the current length limit and alternative length limits that could improve the walleye fishery. However, angler exploitation is an important component of mortality and is necessary to accurately model different length limits.

Therefore, a three-year tagging study was implemented to determine angler exploitation of walleye at Big Creek Lake. One hundred and ninety-five walleye (>13") were tagged in the spring of 2010 with oval plastic Carlin Dangler tags (Figure 1).

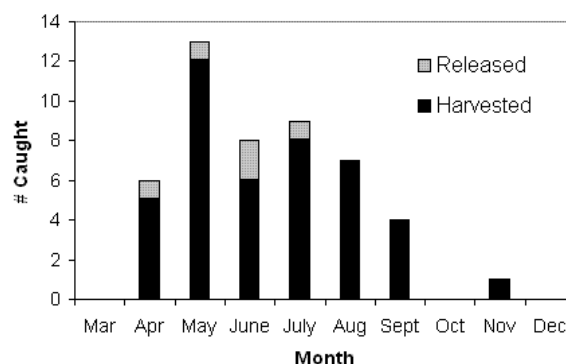


**Figure 1.** An oval plastic Carlin Dangler tag attached to a Big Creek walleye. Tags were returned in conjunction with a survey by anglers for a cash reward.

Anglers who returned the tags would receive a cash reward (\$5 to \$100). Anglers were instructed with signage at boat ramps to return tags to local bait shops. Anglers presented their tags to bait shop employees, filled out a survey and the bait shop employees mailed the information to the

biologist in a pre-paid envelope.

Angler exploitation of walleye at Big Creek is currently 32% after compensating for 25% non-reporting and 9% tag loss (Quist et al. *In Press*). Anglers caught the highest number of tagged fish in May, followed by July and June (Figure 2).



**Figure 2.** Temporal catch patterns of tagged walleye (>15") in 2010.

The angler survey included a map, where anglers marked where they caught the tagged fish. We began to notice that nearly all the tags returned during the summer months (June - August) were from walleye caught in the upper, shallow end of the lake. We speculate that this movement was due to thermal stratification and the presence of food, which was likely being delivered to the lake by tributary flows. Many of the summer time walleye were caught on a rock pile or at the gaps of the rock sills (Figure 3). The rock sills were originally constructed to capture sediment. However, we have found deep (11ft) scour hole and good current at these gaps, especially following heavy rain events in the watershed. Concentrating tributary flows and strategically placing shallow water rock piles may provide summer feeding areas and habitat for walleyes in our impoundments. These structures will likely attract anglers as well and may improve their success rate on walleye during the summer months.



Out-migration of walleye from Big Creek Lake has also been documented during this study. Big Creek Lake discharges water into Saylorville Reservoir, which is part of the Des Moines River system. Two tagged walleye have been caught and reported from the Des Moines River system to date. One fish was caught by an angler in the Saylorville tailrace, which means this fish not only took a ride over the Big Creek spillway, but also went through the

Saylorville dam within a month after we tagged it. The other tagged fish migrated up the Des Moines River ~100 miles and was caught below the hospital dam in Fort Dodge. We will tag additional walleye in the spring of 2011 and use Beverton-Holt yield models to model various length limits after allowing two years for tag returns.

**Figure 3.** Seasonal differences in catch locations of tagged walleye (>15") in 2010.





## 2010 Award Ceremony



Mike Hawkins and Mark Flammang received the 2010 Best Professional Presentation for their joint presentation: *The Pros and Cons of Panfish Bag Limits in Iowa*



Iowa Chapter President Andy Fowler congratulates Past President Bryan Hayes for his excellent work during his tenure as Iowa Chapter President



Jesse Fischer (*Relative Impacts of a Native and Non-Native Benthivorous Fish on Aquatic Ecosystems*) and Ben Wallace (*Incorporating Salmonid Production Dynamics to Guide Management Decisions in Intensively Utilized Fisheries*) each received 2010 Best Student Presentation

## 2011 Award Winners

**Best Professional Presentation:** Jon Lore (Iowa DNR)

**Best Student Presentation:** Anthony Sindt (Iowa State University)

**Best Student Poster:** Jesse Fischer (Iowa State University)



# ISU SUBUNIT UPDATE

<http://www.stuorg.iastate.edu/isu-afs/>



## Current officers:

President – Evan Newman - [newmane@iastate.edu](mailto:newmane@iastate.edu)

President Elect – Cole Harty

Past-President — Chris Smith - [cdsmith@iastate.edu](mailto:cdsmith@iastate.edu)

## Past Activities

Members of the Iowa State Student Subunit of the American fisheries society have been busy this spring attending and presenting at monthly meetings, the Student Colloquium at SDSU, Midwest Fish and Wildlife Conference, and the Iowa Chapter of the American Fisheries Society's annual meeting. Additionally, at our March meeting, Iowa DNR Biologist, Ben Dodd, updated the Subunit regarding some current activities of the Boone Fisheries Management Unit and informed members of upcoming volunteer opportunities with the unit. More specifically, members are planning on volunteering with the Boone unit's walleye exploitation study currently being conducted at Big Creek State Park. Members also attended the Subunit's ice fishing outing on Big Creek State park during the month of January. This outing was planned in collaboration with the Iowa State Fishing Club and was attended by members of these clubs. Following the ice fishing outing, members socialized and enjoyed a barbeque on the lake.

## Poster Update

Due to cost prohibitive setup costs of printing these posters, the Subunit has elected to print off only one version of Fishes of Iowa posters this year. Currently, we are planning on printing 250 copies of 24"x36" size posters. This poster is now undergoing final edits and should be ready for the printers soon. Should additional funding be allotted, the remaining two posters have been prepared to be printed.

## Activities

Members of the Subunit are planning to participate

in the annual VEISHEA celebration at Iowa State by setting up an AFS Subunit booth, educating the public regarding AFS, and hosting a kids casting competition. Moreover, later in the spring members are planning another public outreach effort in the form of a kids fishing clinic to be held at Ada Hayden Park. This event will likely take place the Saturday of April 23<sup>rd</sup> and will include a fish identification session, knot tying lessons, casting demonstrations, and a fishing derby. This event will provide a good opportunity for members to interact with the public and help educate some local youth regarding fishing techniques. Additionally, members that are planning to reside in Ames this summer have also expressed interest in volunteering with the annual fishing clinic hosted by a local outdoor supplier, JAX Mercantile Co., on May 15<sup>th</sup>

Recently, the Subunit has also hosted its officer elections and listed below are the results:

**President:** Evan Newman

**President Elect:** Cole Harty

**Treasurer:** Grant Scholten

**Secretary:** Michael Sunberg

I would like to thank everyone for all of their assistance with the Subunit this past year. The Iowa DNR's assistance in the form of presentations, volunteer opportunities, and guidance are invaluable to the development of upcoming fisheries professionals in the AFS Subunit. Thanks to all for making this another productive year for the Subunit!



## New Program for Iowa Big Fish



A new program recognizing anglers for catching large fish in Iowa is debuting in 2011. The Iowa Department of Natural Resources' new Master Angler program will celebrate each caught fish meeting the minimum length requirement with a certificate and decal.

For many species, anglers may release the fish and still receive the award by meeting the minimum length criteria. Length is measured from tip of the tail to the snout, except paddlefish, which are measured from the front of the eye to the fork in the tail. If there is some doubt about species identification, contact the nearest DNR personnel for verification. One witness must attest to the length of the fish to the nearest 1/4 inch.

For a complete listing of minimum length requirements, see page 40 of the Iowa Fishing Regulations.

Anglers who catch five different species meeting the criteria will be recognized with a Silver Master Angler award and will receive a certificate, silver medallion and decal. An angler who catches 10 different species each meeting the criteria will receive a certificate, gold medallion and decal. Fish must be taken with a valid Iowa fishing license and must be caught legally.

Only one master angler award will be given annually per fish species and only one lifetime award for each Silver and Gold Master Angler level. Fish previously honored by the Iowa DNR's big fish program are ineligible.

The angler must fill out an application available in the Iowa fishing regulations or online at <http://fish.iowadnr.gov> and send it along with a photo to Master Angler Program, Iowa Department of Natural Resources, 57744 Lewis Road, Lewis, IA 51544 or email the form and photo to [holly.rittgers@dnr.iowa.gov](mailto:holly.rittgers@dnr.iowa.gov)

**MEDIA CONTACT:** Joe Larscheid, Chief of Fisheries, Iowa Department of Natural Resources  
515-281-5208.





# A Review of Iowa's Interior River Walleye Program

Greg Simmons, Iowa DNR



Statewide angler surveys have shown that interior rivers are one of the most utilized fisheries in Iowa. The high angling use of interior rivers is a direct result of their abundance and close proximity to the angling public. In a recent survey 40% of respondents reported taking at least one trip to an interior river in 2009 and 44% of these trips involved fishing. Proximity to home was the single most important consideration in choosing a stream to visit.

Walleye stocking in interior rivers began in 1951 when Iowa fisheries biologists attempted to supplement poor natural reproduction of walleyes in these rivers by stocking walleye fry. Due to the very limited success of these stockings, research was initiated in the mid-1980's to develop a better strategy for increasing river walleye populations and angling opportunities on Iowa's interior rivers. In the first phase of the study, fry stockings were compared side by side with stockings of 2-inch walleye fingerlings. Unlike the fry, which had very poor survival, the fingerlings survived well and significantly increased adult walleye populations. By the early 1990's, walleye fingerling stockings had established excellent walleye populations in many of our interior rivers. Research in the 1990's focused on fine-tuning the walleye-stocking program. Results from this research lead to the following recommendations:

1. quality 2-inch walleye fingerlings should be stocked in late spring instead of fry,
2. Mississippi River strain fingerlings had consistently better survival than Spirit Lake strain fingerlings and should be stocked whenever possible,

3. Stocking rates should be about 425 fingerlings/mile for a river with a 1560 square mile drainage and adjusted proportionally for rivers based on drainage size,

4. By stocking at locations upstream of reaches targeted for enhanced walleye populations managers can take advantage of the tendency of walleyes to move downstream from initial stocking sites,

5. Stocking during periods of high water should be avoided, since high summer discharges resulted in low survival of stocked fingerlings.

The walleye fingerling stocking program has proved to be extremely popular among river anglers. A recent creel survey conducted on the Wapsipinicon River in Buchanan County, found that 31% of anglers creeled indicated that they were fishing for walleye, and walleye ranked second in total catch and first in harvest. However, with the increased popularity and success of interior river walleye angling, some anglers became concerned with the possibility of overharvest and wanted to protect the fishery with harvest restrictions. Walleye regulations on Iowa interior rivers are liberal with a daily bag limit of five fish and no size restrictions. These regulations are based on several factors. Growth of walleyes in our interior rivers is exceptional with fish reaching 15 inches by age 3. If we had a typical minimum size limit these fish would only be protected for about 1 year from harvest before they reached 15 inches. Also, since there is very limited natural reproduction, protecting spawning females is not a priority. Results from an angler diary program showed that less than 5% of all walleye harvested were less than 15 inches. So instead of more restrictive harvest regulations the Iowa DNR has implemented a program to further enhance walleye populations by increasing the numbers of fingerlings stocked, expanding the number of interior rivers that are stocked, and increasing the number of stocking sites on each river. Because of this stocking program, Iowa interior river anglers are currently experiencing some of the best walleye angling in the state, if not the Midwest.



## You might be a fisherman if...

1. You have a power worm dangling from you rear view mirror because you think it makes a good air freshener.
2. Your wedding party has to tie tin cans to the back of your boat.
3. You call your boat "sweetheart" and your wife "skeeter."
4. Your local tackle shop has your credit card number on file.
5. You keep a flippin stick by your favorite chair to change the tv channels with.
6. You get 40 to life because your teenager asked you to buy a jet ski.
7. You name your black lab "Mercury" and your cat "Evinrude".
8. Bass Pro Shop has a private line just for you.
9. You honeymooned in Islamorada - ALONE.
10. You have your name painted on a parking space at the launch ramp.
11. You have a photo of your 40 lb. grouper on your desk at work instead of your family.
12. You consider viennies and crackers a complete meal.
13. You think MEGABYTES means a great day fishing.
14. You send your kid off to the first day of school with his shoes tied in a polomar knot.
15. Your wife wears green lipstick so you'll kiss her more.
16. You think there are four seasons - Pre-spawn, Spawn, Post spawn and Hunting.
17. Your \$30,000 boat's trailer needs tires so you "borrow" the one's off your trailer house.
18. Your wife tells you she is feeling "frisky" but you don't know what she means until she explains she wants to spawn.
19. You trade your wife's van for a smaller vehicle so your boat will fit in the garage.
20. Your kids know it's Saturday - because the boat is gone.



## Improved Mapping Data Now Available Statewide

**MEDIA CONTACT:** Chris Ensminger, DNR, at (515) 281-4216 or [Chris.Ensminger@dnr.iowa.gov](mailto:Chris.Ensminger@dnr.iowa.gov)

DES MOINES — New, highly accurate elevation mapping data is now available for all 99 Iowa counties, creating the potential for Iowa businesses and communities to save time and money.

The data can be used with geographic information system (GIS) software for everything from road planning and placing conservation practices to determining floodplains and in precision agriculture.

The DNR and its partners collected the elevation data using LiDAR, or Light Detection And Ranging, which creates an interactive topographic map by scanning the earth with lasers from an aircraft to obtain accurate elevations. LiDAR is similar to sonar in that it measures distance by the time it takes for the laser to reach the ground and bounce back to the aircraft. Previous 10-foot contour topographic data was accurate within 5 feet. LiDAR 2-foot contour data is accurate within 8 inches.

"Using LiDAR data should save communities and groups time and money when it comes to collecting base information for planning projects, especially earth-moving projects," said Chris Ensminger, who coordinates the effort for the DNR. "It also allows you to put together more design options quickly, which results in better planning."

Data for importing into GIS software is available from the DNR's Natural Resources GIS library at [www.igsb.uiowa.edu/nrgislib/](http://www.igsb.uiowa.edu/nrgislib/). The original LiDAR data points, best for computer-aided design, are available via the University of Northern Iowa's Rod Library at [www.geotree.uni.edu](http://www.geotree.uni.edu).

Currently, LiDAR is available only to those with GIS software. The DNR plans to have the data and updated aerial photography available on its interactive mapping website later this spring. The website can print accurate elevation maps for planning hunting, hiking, skiing and sledding trips and more.

Collecting the statewide elevation data was a partnership between the DNR, Iowa Department of Transportation, Iowa Department of Agriculture and Land Stewardship and the USDA Natural Resources Conservation Service.



# IN THE NEWS

## Gypsy Moths Strengthen Foothold in Iowa



Iowa is on the western edge of the gypsy moth spread and woodland owners are likely to witness increased tree mortality as this leaf eating invader gains a stronger foothold within the state.

Gypsy moths, imported to Boston in 1869 as an experiment to help provide silk for the textile industry, have become the most important defoliating insect of hardwood trees in the Eastern U.S.

In 2009, 82 adult male gypsy moths were captured in Iowa. In 2010, the number captured jumped to 2,260.

“Based on previous states’ experience, we can expect to see the number of male gypsy moths captured in our traps to increase if we do not start managing this pest,” said Tivon Feeley, forest health specialist with the Iowa DNR. “This is one pest that we know a lot about, but unfortunately, we don’t know how to stop it, only

how to control its populations.”

Foresters with the Iowa Department of Natural Resources will be working with the Iowa Department of Agriculture and Land Stewardship, APHIS-PPQ, U. S. Forest Service and the USDA Gypsy Moth Slow the Spread Foundation to look at options to hinder the reproduction of the moth. The Foundation works with states along the front edge of where gypsy moths are encroaching and uses pheromones to confuse the adult males into not finding a female during the mating season.

“We are still at a low level of moths,” said Feeley. “If we do not control these populations, we will start to see increased tree loss as the population expands.”

The damage is done in the caterpillar phase which runs from May through July, and the un-pleasantries extend beyond tree destruction. During those peak nuisance months, gypsy moth caterpillars crawl over homes, RVs in campgrounds, vehicles, outdoor furniture and lawns leaving waste from their feeding. The hairs on gypsy moth larvae can also cause allergic reactions to certain

people causing rashes on the inside of legs and arms and abdomen.

### Economies Hurt

Defoliation caused by feeding caterpillars reduces the beauty that forests provide along scenic byways, state forests, and state and county parks in the area, and the recreational experiences for residents and visitors. Reduced camping within infested areas will lead to less revenue for those parks and increasing costs to clean-up after the mess.

Gypsy moths have the potential to change the makeup of Iowa’s oak-hickory forest and the wildlife community along with it. They have few natural predators: birds, beetles, spiders, mice, chipmunks and squirrels will eat adult moths, mice, shrews and ground beetles will eat the caterpillars.

They prefer oak leaves, but will feed on the leaves of all trees, including spruce. In an outbreak year, they will eat anything. The population cycles seven to 10 years between outbreaks.

Losing leaves early during the growing season reduces the tree’s health and growth, causing oaks to abort their acorns and repeated defoliation





can allow an otherwise non-lethal disease, pest or drought to overwhelm the tree and kill it. That is bad news for Iowa hunters and for businesses dependent upon Iowa grown oak.

Oak acorns are an important food source for deer and turkey. Hunters spend hundreds of millions of dollars each year pursuing Iowa whitetails and gobblers. Sawmills and timber buyers buy oak trees for its popular wood. The wood industry supports 18,000 jobs with an economic benefit of nearly \$1 billion annually. Both the hunting and wood industry would be adversely affected by the damage gypsy moth causes.

Forest ecosystems suffer from the loss of shade that the leaves would have offered as protection for birds and their offspring. More light reaches the forest floor which can help invasive plants grow and spread faster. Many native understory plants grow better under shady conditions.

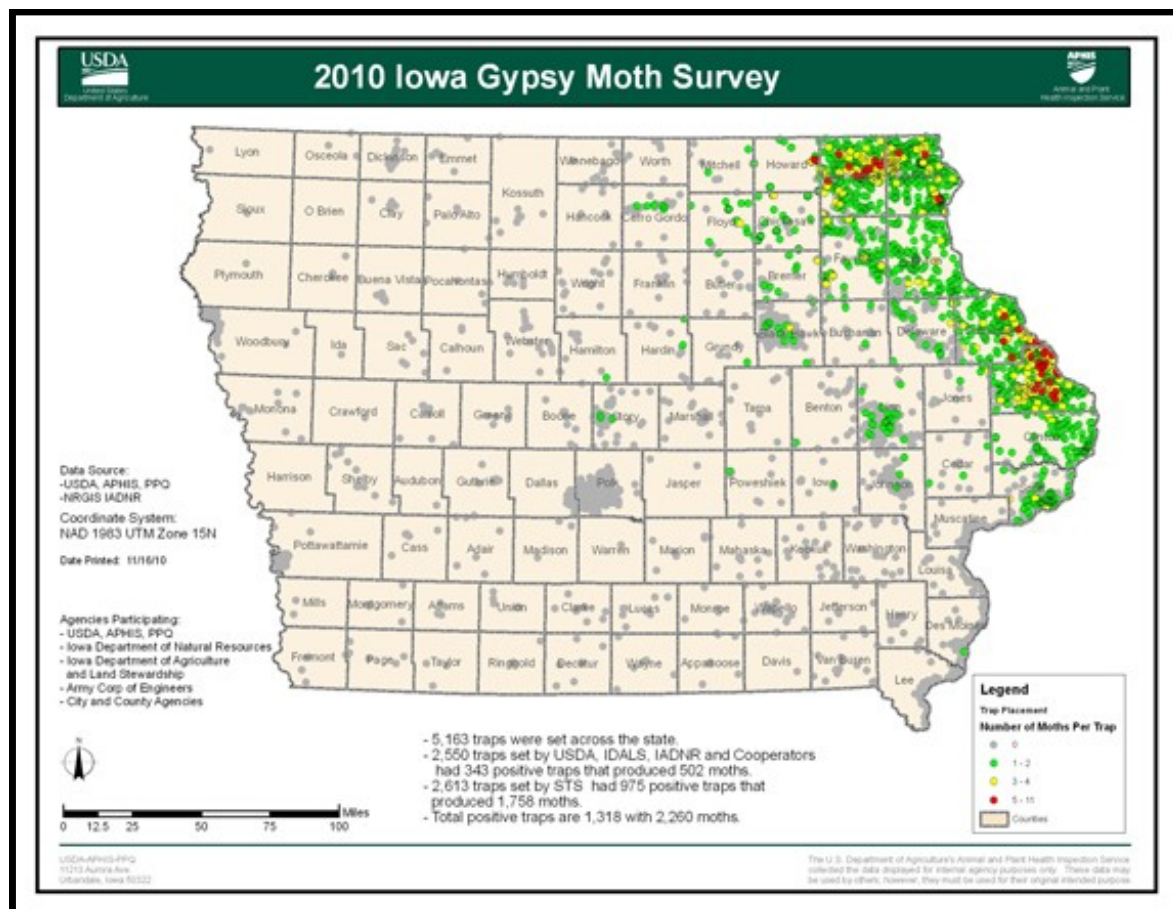
In urban settings, of the 26 million trees that line city streets, 5.5 million are preferred host trees for gypsy moth that would cost nearly \$3 billion to remove if they died as a result of not controlling gypsy moth.

## The Impact

What will happen to Iowa trees once the gypsy moth becomes fully established is not known.

What is known is that moths feed on 300 different types of trees and that will impact Iowa woodland owners, hunters, campers, fall color viewers, and those who buy and sell wood logs for use in wood products.

"We have been monitoring for gypsy moths since 1972 and now that they are here, we will have to start dealing with them. This is obviously not good news for Iowa's woodlands," Feeley said.





# Killer Plant Sucks in Prey at Record Speed

**Aquatic, meat-eating bladderworts can be nasty little suckers**

Video:

[http://www.youtube.com/watch?v=Zb\\_SLZFsMyQ](http://www.youtube.com/watch?v=Zb_SLZFsMyQ)

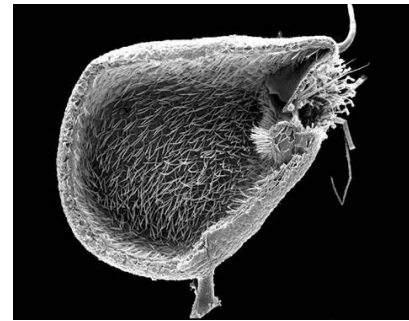
Aquatic, meat-eating bladderworts are among the world's best suckers and they have just been named the fastest trapping carnivorous plants, according to a *Proceedings of the Royal Society B* study. Their traps suck in prey in less than a millisecond, making this one of the speediest movements in the entire plant kingdom.

"The popular *Dionea* (Venus fly trap) is one hundred times slower," co-author Philippe Marmottant told *Discovery News*.

Marmottant, a researcher in the Interdisciplinary Physics Laboratory at Grenoble University, and his colleagues used high-speed video cameras and powerful microscopes to capture the trapping action of three species of bladderworts in the genus *Utricularia*.

The investigations showed that glands in each plant first pump water out of a closed trap. "This deflates the trap and stores elastic energy, like the stored energy in a bent bow, and also generates a depression inside, like with a rubber pipette," Marmottant explained.

During the second actual trapping phase, the stored elastic energy is released. "The firing starts when sensitive trigger hairs located on the (trap) door are touched," he said. "We showed that, because of the inside depression, the door is already on the verge of inverting towards the interior. The curvature inversion of the door is an abrupt event known as an 'elastic buckling' phenomenon, and happens in everyday life when a curved elastic wall is set under depression, like a balloon or plastic



The Common Bladderwort (*Utricularia vulgaris*) is an aquatic carnivorous plant with suction traps for fast underwater prey capture. The traps on this plant suck in prey in less than a millisecond, making this one of the speediest movements in the entire plant kingdom.

bottle."

"Because of the curvature inversion, the door opens and liquid rushes in to inflate again the trap," he added.

As liquid rushes in, the plant sucks in the prey, such as a small crustacean, that triggered the trap door's opening. The force is so powerful that swirls develop inside the trap, further preventing prey from escaping after the trap door quickly shuts. Digestive juices released by glands then dissolve the trapped individual.

Sometimes "larger" animals, such as tadpoles or worms, wind up half in and half out of the trap, gruesomely losing part of their body to the plant's hunger.

When the trap door shuts, the plant excretes mucilage next to a special cuticle around the door, creating a watertight seal. The same trap can fire hundreds of times, all following the very precise and repeated mechanism.

Only four or so other movements are faster in the plant kingdom, and these are all of an explosive nature and not repeatable. Such speedy happenings, according to Marmottant, include the explosive flower opening of *Cornus canadensis*, the exploding



fruit of *Impatiens*, the forcible pollen sac attachment in *Catasetum fimbriatum*, and the squirting cucumber action of *Echballium elaterium*.

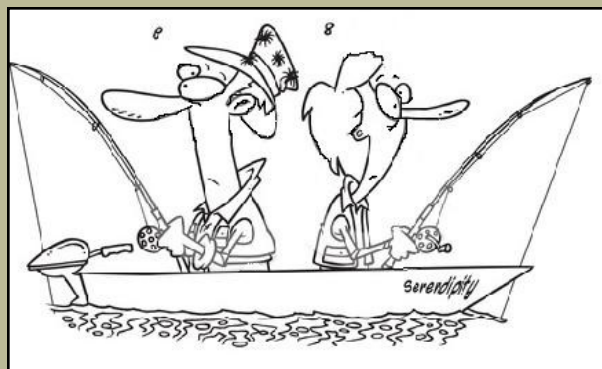
Yoel Forterre, a Marseille University researcher who is an expert on the biomechanics of plants, told Discovery News that the latest findings about *Utricularia* are "great and impressive."

"By combining precise high-speed visualization and physical modeling, the authors for the first time provide a comprehensive description of the mechanics of a bladderwort's trap," Forterre said, adding that he hopes future research will shed more light on what happens at the molecular level

when the plant's traps open and shut.

Marmottant and his colleagues point out that such research could one day improve common microfluidic gadgets, such as the heads of inkjet printers and lab-on-a-chip devices that process biological samples, like blood and human DNA.

Bob and two of his buddies have gone fishing every Sunday for nearly 25 years. One Sunday, the guys are fishing from their boat in a lake close to town when a slow moving funeral procession drives by. Well, Bob lays down his fishing pole, quietly stands up in the boat and takes off his lucky hat placing it over his heart. Being rather large in size, the procession takes several minutes to completely pass by. Once out of sight, Bob quietly sits down, puts his hat on and cast out without saying a word. Needless to say his buddies are floored by his actions and after a few minutes of awkward silence one of them finally speaks up and says to Bob, "that sure was a respectful thing you did there when they went by". To that Bob replied, "It seems like the least I could do seeing as how I've been married to that woman for over twenty-five years!"



## A mother 35 times: Elderly albatross is still laying eggs

### Scientific American

<https://www.scientificamerican.com>

This old bird is a new mother. Spotted a few weeks ago at the Midway Atoll National Wildlife Refuge, which is part of the Hawaiian archipelago. Wisdom the Laysan albatross is at least 60 years old, making her the oldest wild bird documented in North America.

Pictured here with her newest chick, Wisdom appears unruffled by, what scientists estimate, is probably her 35th turn at motherhood. Laysan albatross (*Phoebastria immutabilis*) mate for life, lay one egg per year, and invest many months into raising each chick. They, however, occasionally take a year off between successful breeding cycles. Advanced age has not slowed Wisdom down: she was seen nesting in five of the past six years.



Image courtesy of John Klavitter, U.S. Fish and Wildlife Service

Laysan albatross spend their first three to five years over seas—that is, gliding above the Pacific Ocean, even sleeping aloft, feeding on squid and fish without setting a webbed foot on terra firma. Adults resemble overgrown seagulls, with wingspans exceeding two meters. They do not start breeding until age eight or nine; scientists estimate Wisdom to be in her early 60s because she was already incubating an egg when she was first banded by researchers in 1956. Her species's typical life span is about 40 years.

"To know that she can still successfully raise young at age 60-plus, that is beyond words," said Bruce Peterjohn of the U.S. Geological Survey's Patuxent Wildlife Research Center in Laurel, Md., in a prepared statement. "While the process of banding a bird has not changed greatly during the past century, the information provided by birds marked with a simple numbered metal band has transformed our knowledge of birds." Wisdom has worn out five tracking bands over the years.

"This is an animal that is perhaps genetically predisposed to live longer, and she's probably been very lucky," says Mary Ann Ottinger, a professor of physiology and reproduction at the University of Maryland, College Park. Albatross, like many other seabirds, are a long-lived species, meaning they do not show rapid age-related reproductive decline, although the extent of their reproductive age is unknown. Other examples include hummingbirds, parrots, tortoises, lobsters, elephants and humans. Just as improving living conditions have pushed human life span, favorable environmental factors are particularly pertinent to long-term survival in the wild. Ottinger says it is an unusual but "a hopeful sign" to discover birds like Wisdom.

Approximately 64.5 million birds have been banded and 4.5 million bands recovered in the 90-year history of the North American Bird Banding Program, a collaboration between Patuxent and the Canadian Wildlife Service. The program has provided essential data on avian survival, migration patterns, toxicology, disease and behavior.

—Nina Bai



## INTERESTING READS

### Lipid Catabolism of Invertebrate Predator Indicates Widespread Wetland Ecosystem Degradation

Michael J. Anteau<sup>1✉</sup>, Alan D. Afton<sup>2</sup>

#### Abstract

Animals frequently undergo periods when they accumulate lipid reserves for subsequent energetically expensive activities, such as migration or breeding. During such periods, daily lipid-reserve dynamics (DLD) of sentinel species can quantify how landscape modifications affect function, health, and resilience of ecosystems. *Aythya affinis* (Eyton 1838; lesser scaup; divingduck) are macroinvertebrate predators; they migrate through an agriculturally dominated landscape in spring where they select wetlands with the greatest food density to refuel and accumulate lipid reserves for subsequent reproduction. We index DLD by measuring plasma-lipid metabolites of female scaup ( $n = 459$ ) that were refueling at 75 spring migration stopover areas distributed across the upper Midwest, USA. We also indexed DLD for females ( $n = 44$ ) refueling on a riverine site (Pool 19) south of our upper Midwest study area. We found that mean DLD estimates were significantly ( $P < 0.05$ ) less than zero in all ecophysiographic regions of the upper Midwest, and the greatest negative value was in the Iowa Prairie Pothole region ( $-31.6$ ). Mean DLD was 16.8 at Pool 19 and was markedly greater than in any region of the upper Midwest.

Our results indicate that females catabolized rather than stored lipid reserves throughout the upper Midwest. Moreover, levels of lipid catabolism are alarming, because scaup use the best quality wetlands available within a given stopover area. Accordingly, these results provide evidence of wetland ecosystem degradation across this large agricultural landscape and document affects that are carried-up through several trophic levels. Interestingly, storing of lipids by scaup at Pool 19 likely reflects similar ecosystem perturbations as observed in the upper Midwest because wetland drainage and agricultural runoff nutrifies the riverine habitat that scaup use at Pool 19. Finally, our results underscore how using this novel technique to monitor DLD, of a carefully selected sentinel species, can index ecosystem health at a landscape scale.

For complete paper go to: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0016029>



# SUMMER VOLUNTEER OPPORTUNITIES

## DNR Seeks Volunteers for Turkey River Cleanup with PROJECT AWARE



**MEDIA CONTACT:** Brian Soenen at (515) 205-8587 or [Brian.Soenen@dnr.iowa.gov](mailto:Brian.Soenen@dnr.iowa.gov)

**TURKEY RIVER** –This summer, from July 9 to 16, volunteers will have an opportunity to spend their vacations working as aquatic garbage collectors – cleaning up, learning about and exploring nearly 90 miles of the Little Turkey, Turkey and Volga rivers.

Project AWARE, which stands for A Watershed Awareness River Expedition, is the Iowa Department of Natural Resources' annual volunteer river cleanup event during which participants learn about watersheds, water quality, recycling and other natural resource topics.

"The Turkey River is the centerpiece of recreation, water quality and economic development in Fayette County," said Rod Marlatt, Fayette County

Conservation Board director. "Floods have both exposed and deposited tires, barrels and other trash and the river needs a cleanup project such as Project AWARE."

Volunteers participate by paddling down the river in canoes or kayaks and cleaning up river trash along the way. Opportunities for land-based volunteers are also available. While the expedition lasts a week, volunteers may stay and help for as little or as long as they like.

In addition to river cleanup, Project AWARE also offers a unique blend of educational programs and demonstrations, volunteer camaraderie, camping and other outdoor recreation opportunities that enrich the experience.

Recently, Project AWARE was recognized as the best state-sponsored volunteer event in the country. To date, more than 1,700 AWARE volunteers from across the state have cleaned up more than 613 river miles, removing more than 150 tons of trash (59 percent of which has been recycled) from rivers all across Iowa.

For more information on this event and to download the registration materials, please visit [www.iowaprojectaware.com](http://www.iowaprojectaware.com).





## DNR to Hold Volunteer Water Quality Monitoring Workshops



*To protect and improve Iowa's water quality by raising citizen awareness about Iowa's watersheds, supporting and encouraging the growth and networking of Iowa's volunteer water monitoring communities, and promoting water monitoring activities as a means of assessing and understanding Iowa's aquatic resources.*

**MEDIA CONTACT: Jackie Gautsch, DNR,**  
at (319) 335-1761 or  
[jackie.gautsch@dnr.iowa.gov](mailto:jackie.gautsch@dnr.iowa.gov)

IOWA CITY — IOWATER, the DNR's statewide volunteer water quality monitoring program, will host introductory workshops throughout the state this summer.

During the eight-hour workshops, classroom instruction will be combined with hands-on training as participants learn how to monitor the quality of their local streams, rivers and lakes.

These workshops will focus on three basic water quality monitoring assessments: physical, chemical and habitat. After successful completion of a workshop, volunteers will be equipped with the tools and skills necessary to collect water monitoring data, which they can then submit to an online database via the IOWATER website. Anyone can view data submitted by volunteers, but only certified IOWATER volunteers can enter data.

The 2011 workshops, listed alphabetically by city:

Dubuque: May 23 and 24

Elgin: Aug. 13

Garner: Aug. 20

Milford: May 14

Osage: June 18

Sac City: April 8 and 9

Vinton: Oct. 1

Central Iowa (location to be determined): June 4

Workshop registration fees are \$20 per person or \$30 for a team. Registration covers all program fees, meals and testing equipment. The deadline for registration is one week before each respective workshop.

For more information or to register, please visit [www.iowater.net](http://www.iowater.net).



## Volunteers Wanted to Help Keep Track of Imperiled Wildlife

It's 10 p.m. on a summer night along a gravel road anywhere in Iowa. A raucous chorus of male frogs are making themselves heard as they vie for mates in the farm pond next to the road. A volunteer stands clipboard in hand, ear cocked, mentally sorting out each of the calling species and the number of individuals that might be using this seemingly ordinary pond.

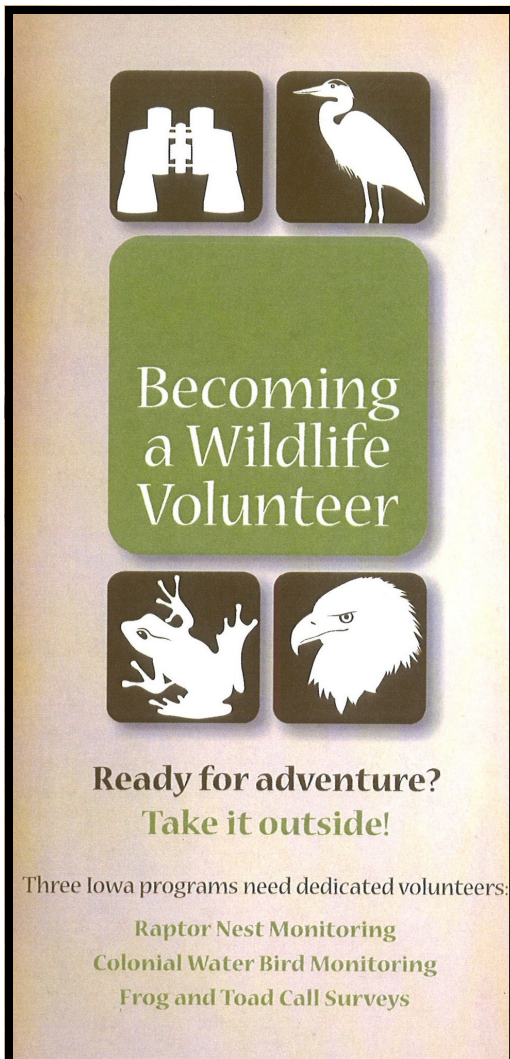
Skip over to a Saturday morning by the river where another volunteer has binoculars trained on the tallest tree in the vicinity. In this tree is a one-ton nest, home to two bald eagles and their young. Are there two or three young in that nest? Hard to tell

and a follow up visit will be needed; in the meantime, notes are taken and a peaceful half-hour is spent watching one of the most spectacular birds in North America.

Both of these volunteers were trained through Iowa Department of Natural Resources' Volunteer Wildlife Monitoring Program (VWMP). The state is big, the species are many, and the staff to monitor these species are few; volunteers are really crucial to ensure that these species remain stable. Every March and April, DNR staff travel around the state leading six training workshops, readying folks to collect data on some of Iowa's critical wildlife. Participants in these workshops have begun a journey to become Certified Volunteer Wildlife Monitors and will be intrinsically involved in wildlife conservation in Iowa.

Two types of trainings are offered: one for folks interested in monitoring raptor or colonial water bird nesting sites and one for people more interested in performing a frog call survey. Raptors and Colonial Waterbirds (herons, egrets, night-herons and cormorants) are targeted because of their role as top predators and their dependence on particular habitats. Frogs and toads are also an important group for data collection because of their dependence on clean water and evidence of global decline among all amphibians. Volunteer monitors should have some tech savvy and computer and web access.

Each year an army of volunteers helps the DNR keep an eye (and ear) on these important resources. The Volunteer Wildlife Monitoring Program provides an opportunity for adults who love the outdoors and wildlife to be directly involved with the conservation and monitoring of Iowa's resources. VWMP Bird workshops in 2011 will be held in Jackson, Palo Alto and Warren Counties in March and frog and toad survey trainings will be held in Wapello, Crawford and Warren Counties in April. Each workshop requires



**Becoming  
a Wildlife  
Volunteer**

**Ready for adventure?  
Take it outside!**

Three Iowa programs need dedicated volunteers:

- Raptor Nest Monitoring
- Colonial Water Bird Monitoring
- Frog and Toad Call Surveys



pre-registration and a \$10 registration fee pays for training materials, a meal, subscription to a bi-annual newsletter, a frog and toad call CD or bird identification guide, and certification costs. Here are the times and locations:

### **Bird Nest Monitoring Workshops (Raptors and Colonial Waterbirds)**

Anyone interested in being a Bald Eagle Nest Monitor must attend a training session.

March 26

Jackson County Conservation, Hurstville  
Interpretive Center, 18670 63rd St., Maquoketa  
10 a.m. to 4:30 p.m.

### **Frog and Toad Call Survey Workshops**

Anyone interested in participating in the Frog and Toad Call Survey must attend a training session.

**April 6**

Crawford County Conservation, Yellow Smoke  
Parks Environmental Education Center, 2237  
Yellow Smoke Road, Denison  
5:30 to 9 p.m.

**April 7**

Warren County Conservation, Annett Nature  
Center, 15565 118th Ave., Indianola  
5:30 to 9 p.m.

**April 13**

Wapello County Conservation, Pioneer Ridge  
Nature Center; 1339 Highway 63, Bloomfield  
5:30 to 9 p.m.

Mail your address, phone number, email address and \$10 registration fee, as well as the date, location and type of training you desire, to Volunteer Wildlife Monitoring Program, Boone Wildlife Research Station, 1436 255th St., Boone, IA 50036. For more information and to obtain a registration form, go to

<http://www.iowadnr.com/wildlife/diversity/vwmp.html> or contact Stephanie Shepherd,  
(515) 432-2823, ext. 102,

[stephanie.shepherd@dnr.iowa.gov](mailto:stephanie.shepherd@dnr.iowa.gov).

**MEDIA CONTACT: Stephanie Shepherd,**  
**(515) 432-2823 ext. 102,**  
[stephanie.shepherd@dnr.iowa.gov](mailto:stephanie.shepherd@dnr.iowa.gov)





PHOTOS FROM AROUND THE STATE



# Iowa Chapter American Fisheries Society Annual Business Meeting

## Honey Creek Resort – Moravia, IA

### January 20, 2011

#### CALL TO ORDER

The meeting was called to order by President Andy Fowler. Andy Fowler introduced EXCOM: President-elect: Chad Dolan, secretary/treasurer: Andy Otting, Past President: Bryan Hayes, and NCD member: Randy Schultz. In attendance were 55 chapter members.

#### TREASURER'S REPORT

Treasure's report was given by Andy Otting. The chapter started the year (12/31/09) with a balance of \$4752.29. The past year's disbursements equaled \$9575.23 and receipts equaled \$7064.30. Currently the Iowa Chapter has a balance of \$2241.36; with outstanding bills for plaques (\$280). Activity on the account included REAP Alliance dues \$150, \$100 for the Iowa Environmental Council, \$500 donation for the AFS Paddlefish Publication, \$350 grant for ISU Subunit posters, \$1,000 to Iowa's Water and Land Legacy, \$500 ISU scholarship presented to Chris Smith, and two \$100 awards to Rebecca Burch and Jesse Fischer for the 2009 Joan Duffy Award. Receipts came mainly from dues and raffles collected at the 2010 Iowa AFS/TWS Joint Meeting in Ames, IA and registration for the continuing education course held at Lakeside Labs. No fisheries grants will be given in 2011.

Andy Fowler motioned to approve the financial report, Jim Wahl seconded.

Proposed budget keeps payments to Iowa Environmental Council, REAP Alliance and 2011 ISU scholarship. Mike Mason brought up having a raffle at the Midwest in Des Moines. Proceeds would be split among Fisheries and Wildlife. Greg Gelwicks proposed the idea of selling T-shirts at the Midwest for additional income.

Don Herrig motioned to approve budget, Jim Wahl seconded. Unanimous vote, budget approved.

#### COMMITTEE REPORTS

**Audit: Ben Dodd.** Ben Dodd reviewed and approved the financial report.

**REAP Committee: Ben Dodd.** Proposed governor's budget reduces FY 2012/2013 REAP funding from its current 15 million to 11.5 million.

**Resolutions committee: Don Herrig/Donna Muhm.** Andy Fowler asked the chapter to write letters to ISU in support of increasing fisheries staff. Clay pierce recommended writing the letters individually and as a chapter. A point of concern to mention is that a more recent resignation than Mike Quist was refilled. The letters should be sent to College of Agriculture and Life Sciences Dean, Wendy Wintersteen and NREM Interim Department Chair, Steven Jungst.

Chris Larson made motion for EXCOM to draft letter. Tom Gengerke seconded. Unanimous vote, motion approved.

**Continuing Education Committee: Clay Pierce.** Clay stated that the aquatic plant identification course held at Iowa Lakeside Labs taught by Darcy Cashatt, Lewis Bruce, and Gary Philips was successful. There were 26 participants.

Potential Course Offerings for 2011:

1 day population modeling course

2 day modeling course

General modeling approaches on day 1





## Clear Lake Ecosystem Simulation Model on day 2

## Age and growth workshop

Course will be offered in July or December/January.

**Nominations: Donna Muhm.** No nominations

**Student Subunit: Chris Smith.** The new Fishes of Iowa posters are still being worked on and will likely be completed this year.

**Membership: Bryan Hayes.** There was an increase in membership last year. 105 regular memberships and 25 student members.

**Program Committee: Chad Dolan.** Announced the 2011 Midwest Fish and Wildlife Conference to be held December 4 – 7 in Des Moines.

### Technical Committee Reports

**Walleye Technical Committee: Donna Muhm.** Donna reported that at the July meeting an age and growth workshop was offered. The plans for July 2011 are to offer a tagging workshop in Dubuque, IA. If interested, contact Andy Jansen.

**Centrarchid Technical Committee: Lewis Bruce.** Lewis also attended the age and growth workshop held in July. Turnout for centrarchid committee members was low at Midwest.

**Esocid Technical Committee: Jon Meerbeek.** Jon attended the summer meeting. It was the same meeting as Walleye and Centrarchid. There were only a few attendees at the winter meeting held during Midwest. Setting up a summer workshop for tagging methods. A survey will be coming out for input on the content of this workshop.

**Rivers and Streams Technical Committee: Greg Gelwicks.** Spring meeting was in Rock Island and was well attended. The meeting will be held at same location this year on March 22 -23. Topics will focus on freshwater mussel issues in NCD and responses of mussels to stream restoration.

**Salmonid Technical Committee: Bill Kalishek.** Bill was not present. No report.

**Ictalurid Technical Committee: Dan Kirby.** Kirk Hanson is trying to put together a “Catfish College” on Rathbun during the week of June 13, 14, 15. Demonstrate channel catfish and flathead catfish sampling techniques on both Rathbun and the Des Moines River. This would be a joint workshop with the NCD and Southern Division. There is also to be a demo on removing otoliths from channel catfish.

Catfish 2010 in St. Louis this past June was very successful. There were approximately 200 attendees and a \$10,000 profit split between NCD and Southern Division. The proceedings from Catfish 2010 will be coming out in summer 2011. There are approximately 60 papers.

**NCD: Randy Schultz.** Nominations for awards are needed. Randy Clerboon(?) new salmonid chair. The new publisher of AFS publications is Taylor Francis. This gives access to better markets and they have a great web platform.

### Awards:

Marion Conover was presented with the 2010 North Central Division Fisheries Excellence Award.

2010 Best Professional Paper: Mike Hawkins and Mark Falmmang – The Pros and Cons of Panfish Bag Limits in Iowa



2010 Best Student Paper: Ben Wallace – Incorporating Salmonid Production Dynamics to Guide Management Decisions in Intensively Utilized Fisheries

2010 Best Student Paper: Jesse Fischer – Relative Impacts of a Native and Non-Native Benthivorous Fish on Aquatic Ecosystems

2010 Best Student Poster: Nick Johnson – A comparison of Two Different Modified Fyke Nets to Sample Fish Assemblages in Iowa Lakes.

Past Secretary/Treasurer: Kim Hawkins

Past President: Bryan Hayes

**Old Business: No old business.**

**New Business:**

Alan Johnson noted that the fish culture section of AFS is building a strong membership and becoming more active. There are new versions of fish drug application publications. AFS members can become affiliate members for \$12 – see Donna Muhm.

**Adjourn.**

## Iowa Chapter of the American Fisheries Society EXCOM Meeting January 20, 2011 Honey Creek Resort, IA

Members attending were President Andy Fowler, President Elect Chad Dolan, Past President Bryan Hayes, Secretary/Treasurer Andy Otting.

**Finance Report:**

Balance on 12/31/2009: \$4752.29

Past year's disbursements: \$9575.23

Past year's receipts: \$7064.30

Current balance: **\$2241.36**

Outstanding bills:

2010 plaques: \$280

Bryan Hayes motioned to approve budget, Andy Fowler seconded

**New Business:**

Andy Fowler introduced new spreadsheet that would be more useful for budgeting and financial reports. All agreed it would be beneficial to have something more standard to pass from treasurer to treasurer.

The number of awards to be judged for the 2011 meeting was discussed and it was agreed upon to not have a professional poster award and just give a student poster award. In addition there would be professional and student presentation awards.

**Old Business: No old business**

Andy motioned to adjourn. Chad seconded. Passed unanimous.



Application form

**Fisheries Project Grant**

Iowa Chapter – American Fisheries Society

Project Name: \_\_\_\_\_

Project Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Attach map or supplementary information

Project Location:

Water Body: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ County: \_\_\_\_\_

Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

Project Personnel: \_\_\_\_\_

\_\_\_\_\_

Fisheries Benefits: \_\_\_\_\_

\_\_\_\_\_

Iowa Chapter Representative: \_\_\_\_\_

Amount needed: \$ \_\_\_\_\_ Total project cost: \$ \_\_\_\_\_

Money will be used for: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Up to \$1,000.00 per project.**

Approved by Excom Committee Date: \_\_\_\_\_



The Iowa Chapter of the American Fisheries Society is offering to help finance worthwhile fisheries related projects. The completed application form needs to be transferred to the Iowa Chapter President by an Iowa Chapter Member.

Project Name – Give the project name.

Project Description – Give a brief review of the intended project. Include the work to be done, the methods and material that will be used in the project.

Attach a map and any supplementary information that you think will help the Excom Committee evaluate the project.

Project Location – Where will the work be done.

Start and End dates for the project. Month and calendar year will do.

Project Personnel – Include organizations and or individuals who will be directly involved in the work.

Fisheries Benefits – A very important part of the project should be direct benefits to Iowa's fishery. How does the project help and who is the beneficiary?

Iowa Chapter Representative – All projects need to have an Iowa Chapter member as a sponsor.

Amount needed – Tell us how much you need and the total project cost.

Money will be used for – Be as specific as you can. Will the money be used to hire people, buy, equipment, be seed money for a grant, etc.

There is a \$1,000.00 limit for each project.

The Excom Committee of the Iowa Chapter will review the application and approve or reject the request.

