

# LATERAL LINES

MARCH 21, 2014

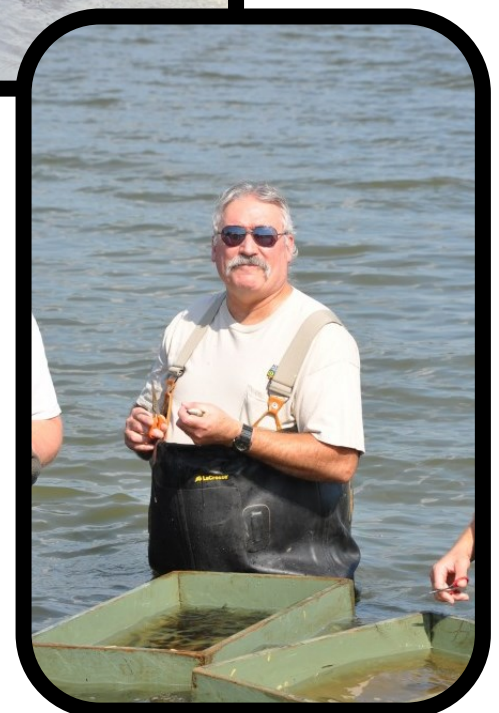
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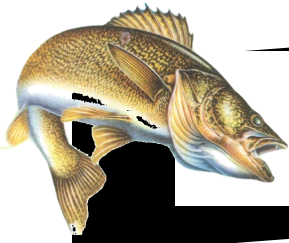
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MIKE MASON

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## OFFICERS

### PRESIDENT

Ben Wallace  
Black Hawk Fisheries Station  
116 South State Rd  
P.O. Box 619  
Lakeview, IA 51450  
(712)657-2638  
Ben.Wallace@dnr.iowa.gov

### PRESIDENT-ELECT

Allen Patillo  
Fisheries Extension  
339 Science II  
Iowa State University  
Ames, IA 50011  
(515)294-8616  
patillo@iastate.edu

### SECRETARY/TREASURER

Dan Rosauer  
Rathbun Hatchery  
15053 Hatchery Place  
Moravia, IA 52531  
(641)647-2406  
Dan.Rosauer@dnr.iowa.gov

### MEMBERSHIP CHAIR

Kim Bogenschutz  
Boone Fisheries Research Station  
1436 255th St.  
Boone, IA 50036  
(515)432-2823  
Kim.Bogenschutz@dnr.iowa.gov

**Our Missions:** To improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.

## COMMITTEE CHAIRS

### Audit

Ben Dodd  
Ben.Dodd@dnr.iowa.gov

### Membership

Chad Dolan  
Chad.Dolan@dnr.iowa.gov

### Resolutions

Donna Muhm  
Donna.Muhm@dnr.iowa.gov

### Continuing Education

Clay Pierce  
cpierce@iastate.edu

### Student Affairs

Clay Pierce  
cpierce@iastate.edu

### Nominations

Donna Muhm  
Donna.Muhm@dnr.iowa.gov

### REAP

Ben Dodd  
Ben.Dodd@dnr.iowa.gov

### Best Paper

Chad Dolan  
Chad.Dolan@dnr.iowa.gov

### Newsletter Editor

Kim Hawkins  
Kim.Hawkins@dnr.iowa.gov



## President's Corner

Ben Wallace

Greetings,

Spring is just around the corner and I think I speak for most of us when I say we're ready for some warmer temperatures. As our lakes and streams start to thaw out we'll all be gearing up to conduct important sampling and get our hands on some fish! Field work always provides a great opportunity for fisheries professionals to assist each other and learn about what's going on in different parts of the state. It also provides students that are training for a fisheries career to get some valuable experience. As you plan your field work this year I encourage you to look for ways to assist each other and take students out sampling.

Back in February we held our annual chapter meeting in Council Bluffs. This was a joint meeting with the Nebraska chapter and proved to be very worthwhile. Both chapters provided excellent presentations and shared new ideas and great information. In between presentations I noticed that Iowans and Nebraskans informally met to discuss several different projects, such as shallow lake renovations and stockings strategies. The social brought both chapters together and we ended up bringing in \$2,500 in the raffle and the auctions! Thanks so much to all those that participated and supported the cause. Other than the nasty weather forcing some folks to leave early, the meeting went great.

The fisheries world is made up of a close knit and wonderful bunch of people. Earlier this year we were all saddened by the loss of fellow member Mike Mason. As most of you know, Mike was

also a member of the Parent Society of the American Fisheries Society, and he was especially active in the Fish Culture Section. Mike worked tirelessly to ensure that the warm-water and cool-water culture workshops stayed active and relevant, which allowed culturists from all over the country to share new ideas and advance fish culture. The Iowa Chapter of the AFS is accepting donations for a memorial for Mike. We're not sure what it will be yet, but the communications bureau of the DNR is working to develop a special way to remember him at the State Fair Aquarium. If you wish to contribute you can send checks to the Iowa AFS, c/o Dan Rosauer, 15053 Hatchery Place, Moravia, IA 52571.

Be safe this field season and have fun!

Ben Wallace

AFS President



# IN LOYING MEMORY ~ MIKE MASON

~ FISH HATCHERY SUPERVISOR IOWA DNR



Mike was a great friend and coworker. He never had a negative attitude and will be sorely missed by all. Mike has worked for us for 32 years and was recently awarded the "Award of Excellence" from the Fish Culture section of the American Fisheries Society. This is a very prestigious award and recognized Mike for his lifetime achievement of improving fishing and fishing opportunities in Iowa. This award was presented to Mike at the October NRC meeting in Des Moines. The text for that award presentation is reproduced below since it captures so well Mike's Lifetime achievements in Fisheries. ~ Joe Larscheid, Chief of Fisheries, Iowa

*"The American Fisheries Society is the oldest, largest and most influential associations of fish professionals in the world. The Fish Culture Section is one of the founding groups of professionals of that society. The FCS Award of Excellence is a new award. It was created in response to our membership to recognize current practitioners in the field of fish culture and allied fields who provide fish for recreation, conservation, restoration, and the dinner table. Mike is a life member of the American Fisheries Society, with over 30 years of membership.*

*Mike's career began in Virginia, where Mike held several seasonal and a full time positions with the Virginia Department of Game & Inland Fisheries from 1974 to 1980. He was hired by the Iowa Department of Natural Resources (DNR) in 1981 to manage Rathbun Fish Hatchery the newly built intensive culture facility for channel catfish, walleye and largemouth bass.*

*In the beginning, walleye culture was especially challenging because culture techniques were still under development and the facility was designed for catfish culture.*

*Mike's observations of walleye survival in the hatchery with larger pond fingerlings was noted in the 1988 Coolwater Fish Culture Conference proceedings. This observation is one of the keys to successful walleye culture at Rathbun and assisted other states.*

*Thanks to Mike's can do attitude and dedication to producing quality hatchery products, Iowa is now recognized nationally as a leader in walleye culture.*

*Mike's leadership skills were recognized and valued by the DNR as he was promoted to Supervisor of the DNR's Fish Culture Section in 1998. His primary responsibility as Supervisor was to supervise 22 culturists at three cold water hatcheries and three warmwater/coolwater hatcheries.*

*One of his employees Donna Muhm said "He has been the most supportive supervisor I have ever had, his people skills are bar none" "He encourages excellence in his staff and allows them the freedom to explore new culture methods and technologies."*



*Mike played an important role in the Management Team. In addition to leading the Culture Section, Mike doubles as an Assistant Chief of the Fisheries Bureau. He regularly worked behind the scenes to ensure that all Fisheries Bureau teams had the resources they needed to manage Iowa's fisheries resources.*

*Mike was also very active at the INAD Coordination Workshops and served as Iowa's representative to the Drug Approval Working Group (DAWG) of the Association of Fish and Wildlife Agencies.*

*Mike's knowledge of daily hatchery operations and administrative savvy made him an excellent representative to the DAWG.*

*He successfully advocated for therapeutants for warm and coolwater fish species that were reared in Iowa and by other state agencies.*

*Mike was always committed to maintaining continuity of the Coolwater Fish Culture Workshop and Mid-Continent Warm Water Conference. Mike views these meetings as training opportunities for hatchery employees and has supported their attendance to stay abreast of new fish culture research and developments. This commitment to employee development led to producing quality size fish in the most efficient and cost effective means.*

*Mike was also instrumental in developing and organizing the fish trading session at the Mid-Continent meeting. The fish trades that were arranged during this session permitted many agencies to stock fish that might not otherwise be available in their state. There are undoubtedly entire sport fisheries in Iowa and elsewhere that would not exist today if it weren't for Mike's efforts.*

*Each of Mike's activities as hatchery manager, supervisor, and INAD and DAWG team member had substantial impacts internally and externally. Many of Iowa's fisheries, including most channel catfish, walleye, and hybrid striped bass fisheries, are dependent on stocking. Much of this activity was made possible by successful stocking programs that were implemented or improved under Mike's leadership.*



## A TRIP TO THE OUPOST CABIN

~ GARY SIEGWARTH, HATCHERY MANAGER, IOWA DNR

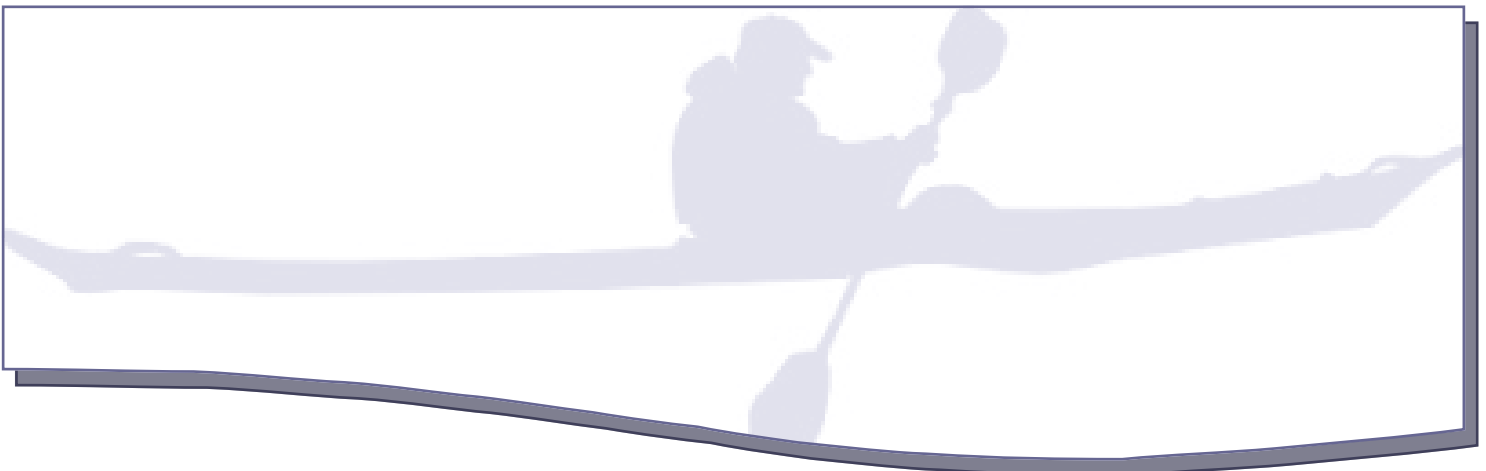


It was a beautiful fall day and Mike had taken the long trip to Big Spring Trout Hatchery in Northeast Iowa to check on the status of our new building under construction there. After we finished up at the hatchery I asked Mike if he was interested in taking a fun journey to a remote piece of land along the Turkey River to check out a small cabin I had recently built. The “Outpost Cabin,” as I called it, was on the edge of a steep ridge overlooking the river. With no hesitation, he said “sure!!!” He had heard about the cabin and had seen pictures of it, but little did he know that the journey to get there meant crossing the river in a tiny kayak and then hiking up a steep and rocky bluff to the top of a high ridge. I tend to take these journeys for granted and am so comfortable on the river that I don’t fully consider the possible disasters lurking ahead. When we got to the edge of the river, I had a small kayak and a solo canoe hidden in the brush. I had no life jackets of course because I never use them. I pulled Mike’s kayak to the edge of the water and he somehow managed to squeeze into the small opening so that the kayak fit around his waist like a skin-tight latex glove. I

just assumed he had been in one before as I launched him into the river while explaining that he simply needed to paddle straight across to the steep rocky river bank on the other side. As soon as his small narrow kayak hit the water, Mike immediately began tipping wildly from side to side as I helplessly watched from the edge of the river bank. Holy shit, I’m going to drown my supervisor....along with other thoughts of panic flooded into my mind as I scrambled to get in my canoe and onto the water. He quickly floated away down river in the fast moving current, his body touching the water from side to side in rapid and uncontrolled 180-degree undulations. He lost his paddle and clung helplessly to the gunnels as water poured into the kayak each time it tipped wildly from side to side. He was spinning helplessly out of control in the current as I raced down river after him. My plan was to try and grab on to the side of his kayak so he wouldn’t tip all the way over and be trapped under water. I really don’t know how he managed not to go all the way over and get stuck upside down underwater. As I finally got hold of the kayak, it was still difficult to keep the boat from tipping from side to side. We somehow managed to get to the other side of the river without both of us tipping over. Exactly how we were going to get back across and upstream against the current was another matter. Once we got near the shore, I jumped into the shallow water to hold his boat. After a short struggle, Mike eventually managed to squeeze out of his boat and on to dry land like a Champaign cork that finally pops loose from the bottle. Now completely soaked from the waist down, it was still a 20 minute hike up a steep grade along the side of the bluff to get to the cabin. About half

way up the trail, Mike lost his footing on the loose rocks and quickly rolled down hill long-ways, like a runaway log rolling down a steep grade. He eventually came to an abrupt stop against a tree and was holding his arm. I gave him a towel to stop the bleeding from his shoulder. He never said a word, but I could just imagine the possible anger he was feeling for this extreme outdoor debacle I had gotten him into. Mike was soaked with sweat and completely out of breath by the time we finally reached the outpost cabin. I quickly got him a fold out camp chair to sit on, which of course collapsed and nearly sent him sprawling off the cabin porch which

hangs out over the steep edge of a 50-foot sheer bluff. I got him a different chair, which he reluctantly sat down on. We caught our breath and took in the magnificent vista of the river valley below from the unique perch of the outpost cabin porch. Mike never said a word. I was trying to read his mood before announcing we had to make the same journey back down and across the river from where we came. I could only imagine what he must have been thinking about and how angry he was about this disaster I had gotten him into. All I could read was the same even keeled expression that characterized Mike's easy going personality. Luckily the trip back down was not nearly as eventful. I got him back across the river by having him sit on the floor of my canoe. As we drove back toward the hatchery in silence, a big grin came across his face. He turned to me and said "hey thanks a lot for taking me over there, I had a great time.....I really did!" We both broke out laughing.



# PRAIRIE ROSE LAKE RESTORATION, SHELBY COUNTY

~BRYAN HAYES, FISHEREIES MANAGEMENT, IOWA DNR

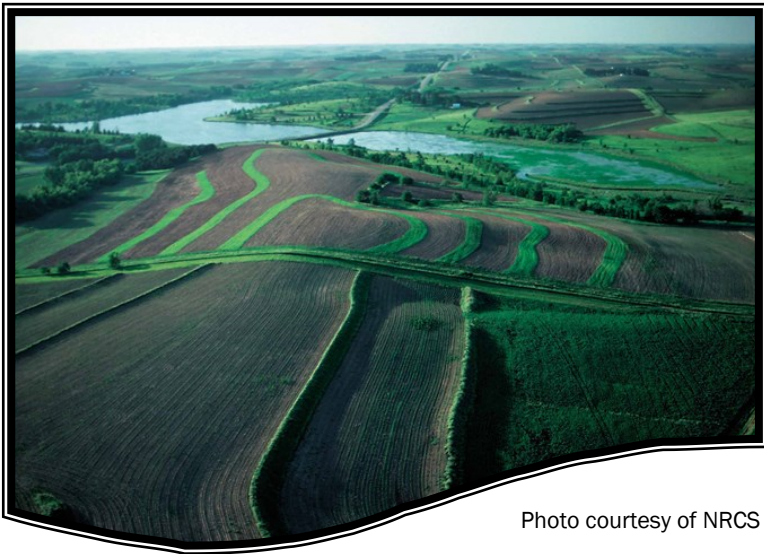


Photo courtesy of NRCS

Prairie Rose Lake is a 173-acre lake constructed in 1958. Historic problems at the lake centered on poor quality fish populations, lake siltation and poor water quality. Prairie Rose Lake's water quality problems are largely related to watershed loading of sediments and nutrients. Fishing has been in decline at Prairie Rose dating back to the late 1970's. In 2008 a holistic approach including watershed and in-lake restoration activities began at the lake.

Prairie Rose Lake has a long history of intensive lake management. In 1977 the fishery was dominated by a slow growing crappie (*Pomoxis sp.*) population. In 1979 a selective renovation was initiated targeting a large common carp (*Cyprinus carpio*) infestation. A complete fisheries renovation occurred in 1981 targeting both gizzard shad (*Dorosoma cepedianum*) and common carp removal from the lake. Common carp returned to the system within two years. In 1986 black bullheads (*Ictalurus melas*) were dominate and both mechanical removal and predator stocking took place. The 30 years of intense fisheries management efforts at Prairie Rose Lake have been costly, produced poor results for anglers, and have been limited by the poor water quality in the lake.

## Watershed Improvement

Shelby County SWCD conducted a watershed assessment followed by a joint Iowa Department of Agriculture and Land Stewardship / IDNR Watershed Improve-

ment Section grant to accomplish targeted soil conservation work in the watershed. A Water Quality/Watershed Protection Project Grant was awarded in 2008. Through the three year Prairie Rose Water Quality Project, there was over 225,000 feet (40 mi.) of terraces, grassed waterways and nutrient management plans added to the watershed, reducing sediment and nutrient delivery to the lake by 60%.

## Land Acquisition Keeps Project Moving

Dredging excess sediments from the main lake was identified as a key component to restore Prairie Rose Lake. The problem was there was no dredge spoil site when the project began in 2008. This threatened to bog down the in-lake portion of the project.

Then in 2010, a property bordering the park on two sides came up for sale. This 77 acre tract was eventually purchased with Lake Restoration funds and would serve as the dredge spoil site. This was a huge hurdle to overcome that many close to the project thought might be unattainable at a time of high commodity prices and skyrocketing land values.



Photo by Mike Byrnes

## Moving In-Lake

Prairie Rose Lake was dewatered in July 2011 to allow construction work to begin in the basin. Stabilizing the eroding shoreline and mechanical removal of 60,000 cubic yards of sediment was completed during the winter of 2011-12. Rock reefs, pea-gravel spawning beds, cedar tree brush piles, and rock piles were added to the lake for fish habitat. The spillway modification to prevent rough fish from migrating into the lake from below was completed by the fall of 2012, clearing the



way for the refilling the lake. In September 2012, the gate was shut and Prairie Rose Lake began to re-fill following the treatment of the watershed to remove undesirable fish species. (a.k.a. common carp) and by June of 2013 water was spilling over the spillway.

**Fish Stocking**

Restocking the lake followed the methodology established at Twelve-Mile, Green Valley and Little River Lakes aimed at speeding up the return of quality size fish. Adult largemouth bass (*Micropterus salmoides*) were the first fish stocked in the spring of 2013 at a rate of 1 per acre. Two-inch bluegills (*Lepomis macrochirus*) (45,000) were stocked in May and 12,000 channel catfish (*Ictalurus punctatus*) fingerlings were added in June. Completing the first year stocking was 12,000 OTC marked fingerling largemouth bass.

As expected, the adult largemouth bass established a natural year class in Prairie Rose Lake in 2013. A sub-sample of 50 young of the year bass from the lake in the fall exhibited no marks indicating they originated from natural reproduction. Electrofishing catch rates for fingerling bass exceeded 300 per hour in the fall. First year goals of establishing a predator population ahead of bluegill reproduction was met and thought to be a key to producing quality size bluegill in Prairie Rose Lake.



Largemouth bass reproduction from Prairie Rose Lake first sampled in June 2013 and then in September, 2013.

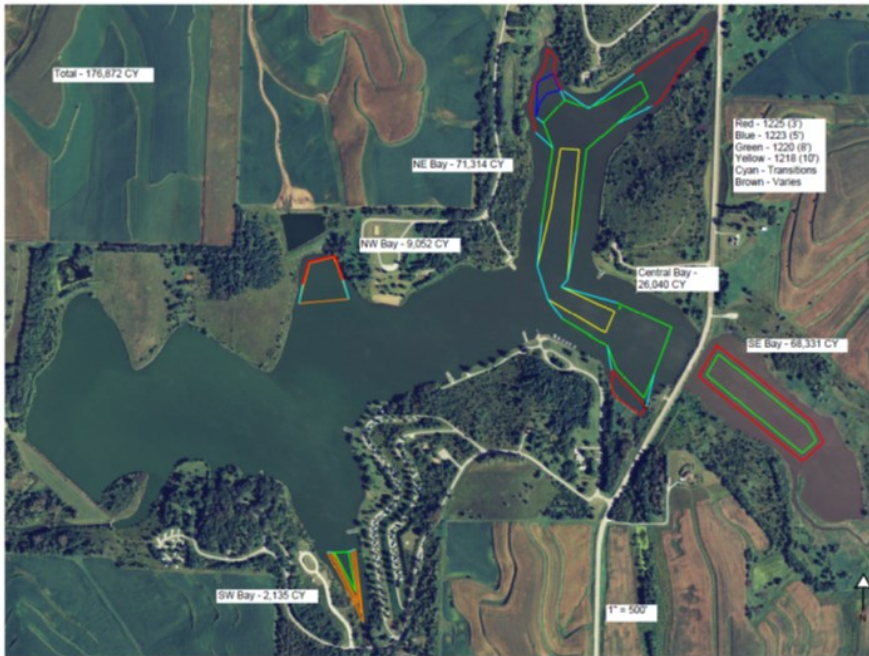


**Hydraulic Dredging**

Construction of the dredge spoil containment site began in the fall and was nearly complete by the end of 2013. This containment site is designed to hold the nearly 200,000 cubic yards of sediment to be dredged from the lake. Hydraulic dredging plans were finalized and put out for bids. The low bid of \$1.4 million was accepted by NRC and the project will move forward in 2014. Nearly 180,000 cubic yards of sediment will be dredged from the lake. Dredging accumulated sediment from the upper portions of Prairie Rose Lake will have water quality and recreation benefits.



Dredge spoil containment site construction at Prairie Rose Lake, 2013.



*Hydraulic dredging locations and quantities planned for 2014.*

It all started in the watershed back in 2008 with a watershed project that was well received by the landowners. Thanks to the many cooperators in the watershed, the local community, and the State of Iowa Lake Restoration Program that made this holistic approach to lake restoration possible. Because of this cooperation, the people of Iowa will have a better state park and lake to enjoy for years to come.

<b>Prairie Rose Restoration Plan</b>	<b>\$\$\$\$</b>
Water Quality /Watershed Protection Project Grant	\$510,611
Containment site purchase	\$340,000
<b>Phase 1</b>	<b>2012 and 2013</b>
Two road risers and two wetland rock chutes	\$374,266
Spillway modification/M47 Structure/Gate Valve	\$185,242
Containment site construction	\$629,000
Mechanical dredging (South-east basin)	\$289,951
Shoreline armoring	\$234,246
Fish habitat construction	\$148,759
Fish renovation	\$10,000
Sediment removal SE Rock Chute Wetland	\$19,600
<b>Phase 2</b>	<b>2014</b>
Hydraulic dredging / 180,000 yrd <sup>3</sup>	\$1,480,000
Sediment pond construction below Mill's (estimated)	\$50,000
<b>Total</b>	<b>\$4,271,675</b>
<b>Funding Source: State of Iowa Lake Restoration Funds &amp; Water Protection Funds</b>	

# LESSONS LEARNED FROM OTC MARKED WALLEYE STOCKED IN CLEAR LAKE, IOWA

~JONATHAN MEERBEEK AND KIM HAWKINS, FISHERIES RESEARCH, IOWA DNR

It has been well documented that stocked walleye fry contribute substantially to the walleye fisheries in natural lakes in Iowa (Rose 1955; Carlander et al. 1960; McWilliams and Larscheid 1992). More specifically, no large walleye year class was observed in years when walleye fry were not stocked in multi-year fry stocking evaluations Spirit Lake and Clear Lake, thus emphasizing the importance of stocking walleye fry to maintain desired walleye fisheries.

Consequently, many large natural lakes in Iowa have been stocked annually with walleye fry since the 1960s, but relatively little has been done to understand the variability in survival of stocked walleye fry. Recently, the adult walleye population in Clear Lake had decreased to unacceptable levels (Figure 1). Walleye recruitment has also been poor from 2005-2011, with the exception of 2010 (Figure 2). A slight modification to the stocking technique was performed during 2010 (stocking 2.5 million fry from bags off-shore), thus questioning past stocking techniques. Managers were concerned that the recent poor adult walleye abundance may be the result of poor fry survival.

As part of this study, we surveyed ten natural resource managers and asked them to provide information on their agencies walleye fry stocking techniques. Managers were asked if they transported walleye fry in bags or used distribution tanks on the hatchery truck. They were also asked if they stocked

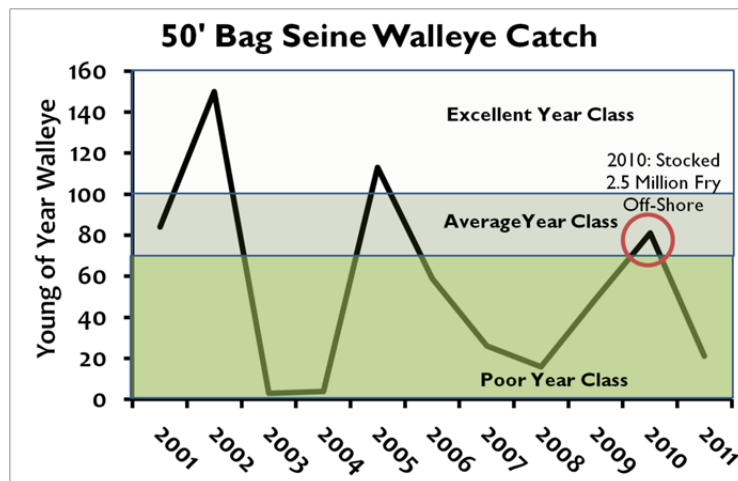


Figure 2. Number of young-of-the-year walleye captured in 50' seine hauls in Clear Lake from 2001-2011.

their walleye fry “off-shore” or “near-shore (i.e. boat ramp)” and if they had any other techniques they used to increase fry survival.

Nine Midwestern states provided input, representing both natural lakes and reservoirs. Seven of the nine (78%) agencies said that they exclusively use bags to transport walleye fry. South Dakota and Nebraska were the only states where hatchery trucks were used to stock walleye fry. However, bag stocking has become more common in South Dakota and the walleye fry stocked from the truck in Nebraska are off-loaded from the truck to the boat using a specially designed discharge tube and fry are stocked off-shore or near the dam.

All states except South Dakota (88%) prefer to stock walleye fry in off-shore areas (middle of system, by wading as far out as possible, or by utilizing flow to carry fish away from shore). In cases where walleye fry are stocked from the boat ramp or near shore, every attempt is made to be out of the wind. Most of the states that use bags to stock walleye fry acclimated them to the receiving waterbodies temperature before releasing. In Iowa, almost all walleye fry stocked into natural lakes are stocked from a hauling truck (near-shore stocking) on the leeward side of the lake.

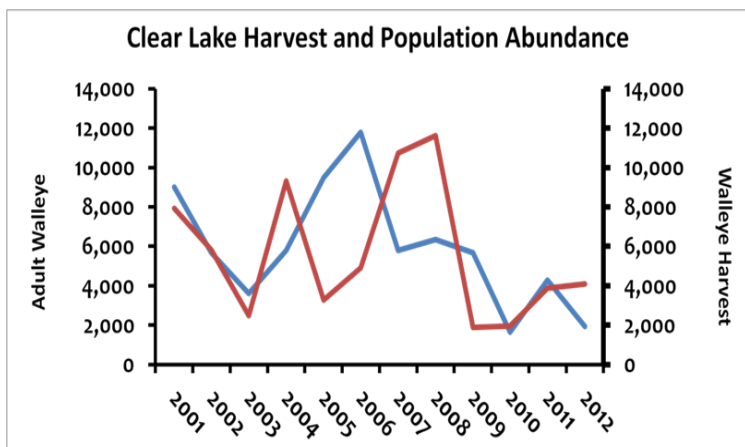


Figure 1. Clear Lake walleye harvest and population abundance trends, 2001-2012.



The objective of the study was to evaluate walleye fry contribution of near-shore stocked versus off-shore stocked fry utilizing oxytetracycline (OTC) immersion as a marking tool.

In 2012 and 2013, the Rathbun hatchery crew immersed walleye fry in a 700 ppm OTC solution for 6 hours. Fry were then bagged and delivered to Clear Lake.

The walleye fry were acclimated (pH and temp) for 1 hour before being stocked. In 2012, 4 million OTC immersed fry were stocked from bags in two locations in the middle of the lake basin (i.e. off shore stocking). Also in 2012, 4 million non-marked walleye fry were stocked from shore into Clear Lake at the Ritz boat ramp. In 2013, 8 million OTC immersed fry were stocked from shore while 8 million non-marked fish were stocked in the middle of the lake. We alternated OTC marked cohorts in attempt to reduce bias resulting from natural recruitment.



In the fall of 2012 and 2013, 145 and 163 age-0 walleye, respectively, were captured via seining, trawling, and electrofishing. Each year these fish were taken back to the lab at Spirit Lake. Total length was recorded and otoliths were mounted on microscope slides and viewed under an epifluorescent microscope to determine presence or absence of an OTC mark. Marks were rated from 0 (no mark) to 2 (good mark). A faint mark received a rating of 1 (Figure 3).

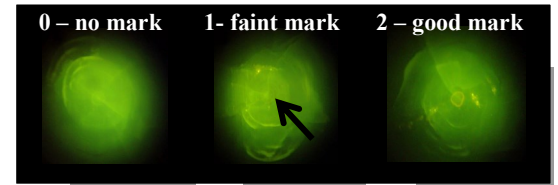


Figure 3. Rating system used to score

In 2012, 57.1% of age-0 walleye captured had visible OTC marks on the otolith (off-shore stocking), whereas, 42.9% were either from near-shore stocked fry or naturally reproduced fry (Table 1). In 2013, 35.2% of age-0 walleye captured had visible OTC marks (near-shore stocking) and 64.8% of walleye fry unmarked (off-shore stocked fry or naturally reproduced; Table 1). When combined, maximum off-shore stocked fry contribution was 63.1%, whereas near-shore stocking contributed to a maximum of 42.3% of the fry population.

Table 1. Percent Contribution of Near-shore and Off-shore stocked fry stocked in Clear Lake, Iowa from 2012-2013.

Method	Year	Mark	Contribution to		Max contribution (10% error)
			sample	%	
Off-shore stocked fry	2012	OTC	93 of 163	57.1%	61.3%
	2013	None	94 of 145	64.8%	64.8%
	Mean			61.0%	63.1%
Near-shore stocked fry	2012	None	70 of 163	42.9%	42.9%
	2013	OTC	51 of 145	35.2%	41.7%
	Mean			39.0%	42.3%

Based on a Chi-square analysis comparing observed contribution to expected contribution (50:50 ratio), there was a significant difference in stocking contribution among near-shore stocked or off-shore stocked walleye fry ( $P = <0.01$ ). All combinations of off-shore versus near-shore comparisons (incorporating reader error and natural recruitment) favored off-shore stocking ( $p = <0.05$ ). Since walleye natural reproduction contribution is unknown, 42.3% contribution would be the highest possible contribution for the shore-stocked walleye fry.

Alternating OTC immersion for the two techniques will continue through 2014, but these initial findings do provide some evidence that off-shore stocked walleye fry perform better than their near-shore stocked counterparts. If these trends continue during the third year of the project, managers may want to consider ways to assist hatchery crews distribute walleye fry in off-shore areas to increase fry survival. Although bag stocking in some lakes may not be practical, other techniques, such as a boat mounted distribution tank, could be used as alternatives with relatively little investment besides time. Since it is well documented that walleye fry stockings are the primary driver of large year-classes in many systems, even slight modifications in stocking techniques could enhance survival and provide more consistent walleye fisheries.

#### References:

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# IN THE NEWS

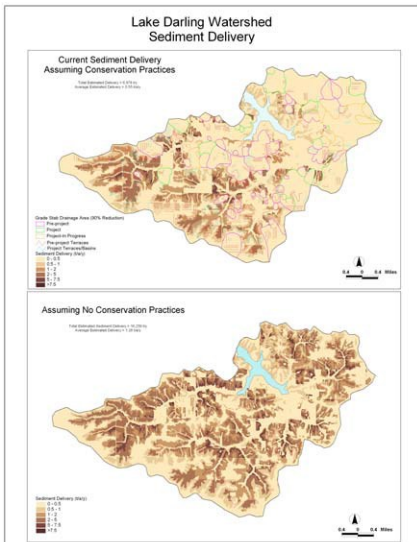
## -IOWA OUTDOORS

### LAKE DARLING: TAKE TWO



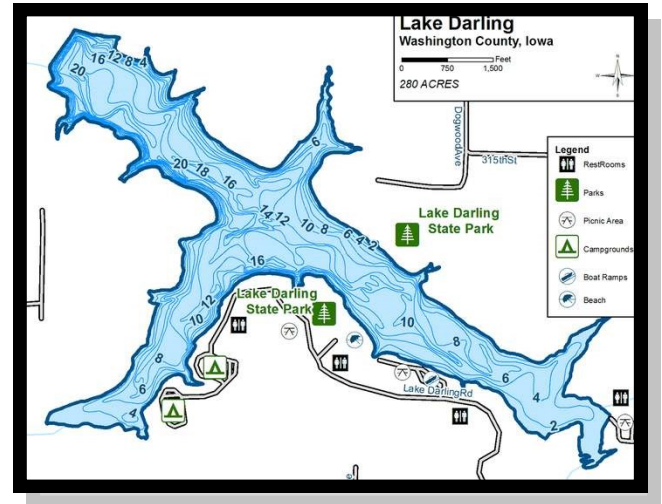
BRIGHTON, Iowa - With a few twists from above, the outlet pipe sealed shut. Looking on atop the Lake Darling dam, the crowd cheered as the ceremonial first water (a half dozen water bottles turned bottom side up) was poured into the expanded, 304-acre lake bed. For good luck, a dozen people flung dollar coins; recreating a story from the original ‘gate setting.’

And so begins ‘Lake Darling; Take Two.’ Gone are 60 years of silt and nutrients which washed in from the 12,500-acre watershed above the state park and lake, near Brighton in Washington County. One estimate is that the muck trucked out would fill a football field...12 stories high.



“With that 47:1 (acre ratio) watershed, we would not build a lake today,” admitted retired DNR fisheries biologist Don Kline.

However, it was a show-place on September 17, 1950. Park namesake—and legendary conservationist—Jay N. ‘Ding’ Darling was on hand for the dedication of what was then the largest artificial lake in Iowa.



Spectators lined the dam and seven high school bands played. It was a ‘huge crowd,’ as reported in the Des Moines Register. That’s where Darling won two Pulitzer Prizes during his tenure in the first half of the 20th Century, as a biting editorial cartoonist.

From there, he stepped into the pre-war Roosevelt administration as chief of what would become the U.S. Fish & Wildlife Service. He was the driving force behind establishment of tens of thousands of acres of national wetlands; funded in large part by another Darling legacy; the federal Duck Stamp. He also convened and became the first head of the National Wildlife Federation.

Over the years, though, that oversized chunk of heavily farmed watershed in Washington, Keokuk and Jefferson counties filled in much of the lake.

“In the ‘70s, it would flow in hot chocolate brown,” noted Kline. The lake was drained in 2008. Since then, engineering, archeological and construction efforts...as well as a gotta-see-it-to-believe-it cooperation between landowners, government agencies, donors and other players went to work. Now, they wait for their \$16 million investment to fill.

“Obviously, we get this snow to melt. There is a little water seeping out of the ground already. We expect with a normal (spring) that by the end of April, the lake will be full,” estimates fisheries technician Vance Polton. Small fish are to be stocked in early summer. With substantial in-lake habitat, plenty of food and no large predators yet, that will mean great fishing in two to three years.

There won't be much access to the lake this summer anyway. Construction will wrap up this year on a new campground, water and sewer system, roads, boat ramps. Even the 'old' lodge along the lake is only seven years old. "Everything is new, except the ground it is built on," grinned Polton.

With substantial snow and temperatures in the teens, Wednesday's cold weather gate setting was a bit more subdued than the first time around. Still, as the crowd grew to almost 100 in the nearby Brighton Community Center, nine hands went up when the call went out for any 1950 attendees.

But the real story, *this time around*, shows up on a tour around the lake. There, 162 conservation projects are in place; ponds, terraces, water control basins, soil holding grasses and other conservation measures.

Watershed coordinator Stan Simmons points to ponds, for instance, stretching across property lines.

"Without landowners, we would not have any of this done," Simmons flat out declares. "Everything that happens up here is on land. It is owners cooperating with each other. Problems did not start at line fences. They did not stop at line fences. Many times, landowners had to work together to get problems solved. And we were very successful, in most instances."

Those conservation practices slow down water moving down the watershed. Silt, nutrients and other contaminants drop out of the flow. Of those 160 projects, 72 involved two or more landowners working together. A study of the drainage area indicates that three-fourths of the private land causes a 95 percent reduction in sediment that ends up in the lake. Even on the remaining private land, a high percentage of the runoff is controlled.

That means clear water reaching the lake; a lake that the Brighton community hopes to take to the bank.

"With 100,000 people living within a half hour of the 'new' lake, an \$8.5 million economic impact is predicted," DNR fisheries biologist Chad Dolan, noted for the lake supporters. "Lake Darling is back. It surely would not have happened without you."

### Darling Legacy Continues at Hoover Library

Wednesday's Lake Darling gate setting came on the anniversary of its namesake's death, (in 1962). His larger than life legacy continues a half century later, with an exhibit at the Herbert Hoover Library in West Branch. 'The Hidden Works of J.N. 'Ding' Darling' will continue through May 24.

He was the subject of a 2013 TV documentary, 'America's Darling; The Story of Jay N. 'Ding' Darling,' produced by Samuel Koltinsky. The piece, which featured Darling's grandson Kip Koss, tracked his early days in Sioux City, his rise to the top of the high impact world of political cartooning in the 1920s and 30s...and his larger than life impact on 20<sup>th</sup> Century conservation.



At this week's ceremony, Koltinsky returned to Iowa; three months after Koss died. "He was excited about the lake restoration; the cooperative partners involved. You are building a story for the next generation (and) leaving such a wonderful legacy." Koltinsky also announced he is developing a follow up documentary; 'Darling is Back.'



Photo courtesy Washington Co. SWCD

## IN THE NEWS -IOWA OUTDOORS

### LONG WINTER EXPECTED TO AFFECT FISH POPULATIONS

SPIRIT LAKE - With each passing day of ice cover, there is a growing likelihood that several Iowa lakes and ponds will experience some level of natural winter fish mortality

“We lose fish every year during the winter, but this has been a hard winter and we are expecting to see more lakes with some winter mortality, and a few lakes, like Minnewashta, are experiencing oxygen levels lower than typical,” said Jim Wahl, supervisor for fisheries in northwest Iowa.

Minnewashta, Upper Gar and the lower end of East Okoboji Lake have low oxygen levels and ice anglers reported seeing dead fish through their underwater cameras in Minnewashta. Other lakes with low oxygen levels are Eldred Sherwood in Hancock County, Clark Lake, in Cerro Gordo County, and Sabula and Spring lakes on the Mississippi River.

“Our lakes froze early and have been under ice in some areas for three and a half months. We are still finding 20 to 33 inches of ice so it will be around for some time. The last time we saw a winter like this was in 2008,” he said.

When lakes freeze early and receive a blanket of snow, it effectively shuts off the sunlight from reaching aquatic plants, which stops photosynthesis and the flow of oxygen into the water. The longer the ice and snow cover the lake, the less oxygen is in the water and available to the fish. Wahl said low oxygen levels have been found in a variety of lakes, from the north to the south.

An additional factor in Lake Minnewashta could be the decomposition of a late season algae bloom that robbed additional oxygen from the water compounding the early ice, snow cover factor.

The DNR has taken steps to prevent winter fish kills from low oxygen by placing aeration systems at a few lakes with a history of winter kills. Aeration systems keep a section of the lake from freezing allowing some oxygen into the water but does not guarantee a lake won't winterkill during extreme winters.

Wahl said even during the most severe winter, a complete kill is seldom observed and fish populations rebound quickly.

“We expect some fish loss but we just won't know the extent of it until we can get our survey boats on the water and sample lakes that had low winter oxygen readings,” Wahl said.

**MEDIA CONTACT: Mike Hawkins, Fisheries Biologist, Iowa Department of Natural Resources, 712-336-1840.**



## IN THE NEWS

# Science

## FINDINGS

U.S. Department of Agriculture  
 Pacific Northwest Research Station  
 1220 SW Third Avenue  
 P.O. Box 3890

### Sleuthing Out a Silent Scourge for Amphibians



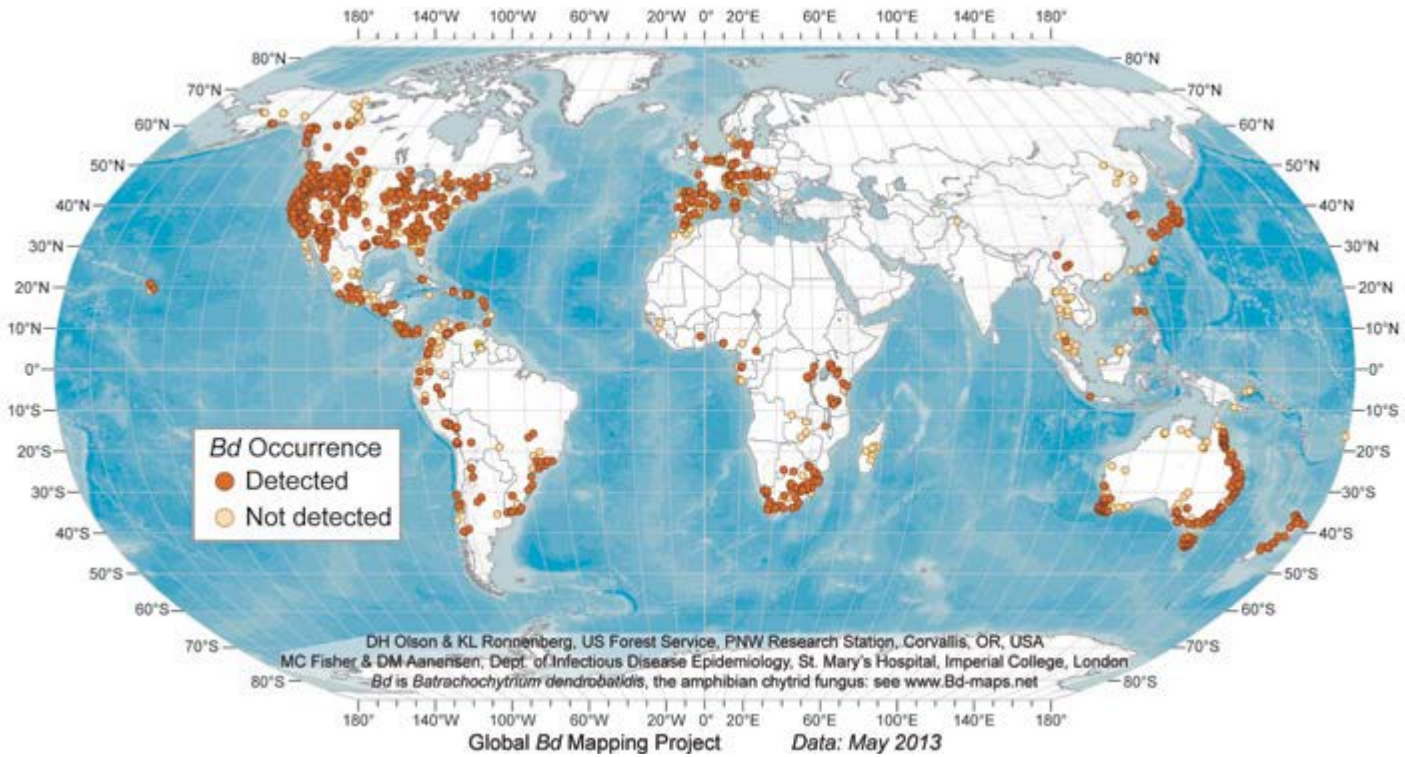
The amphibian chytrid fungus, *Batrachochytrium dendrobatidis* (Bd), causes the infectious disease chytridiomycosis, which has triggered massive die-offs and extinctions of amphibians around the world. The disease, identified in 1998, is a significant contributor to the global amphibian biodiversity crisis, and no clear means of arresting its spread has been found. Conservationists, scientists, and wildlife managers are grappling with understanding the extent and severity of chytrid disease and its ramifications on species and ecosystems. Enlisting collaborators around the world, Dede Olson, with the Pacific Northwest Research Station, and her colleagues initiated a global surveillance project in the form of a website-based database, displayed on publicly accessible maps that show the incidence of Bd and the affected species.

*The first comprehensive report on the collected data revealed that patterns of infection differed among different species and sites. However, it was evident that biodiversity within amphibian communities and climate factors play significant roles in Bd occurrence. These and other findings have inspired a barrage of new studies and the project website has grown into an international clearinghouse for science and management strategies pertaining to imperiled amphibians. The project is also fostering a novel model for networking and partnerships to produce and share results more rapidly and on broader scales, which could ultimately benefit many different fields.*

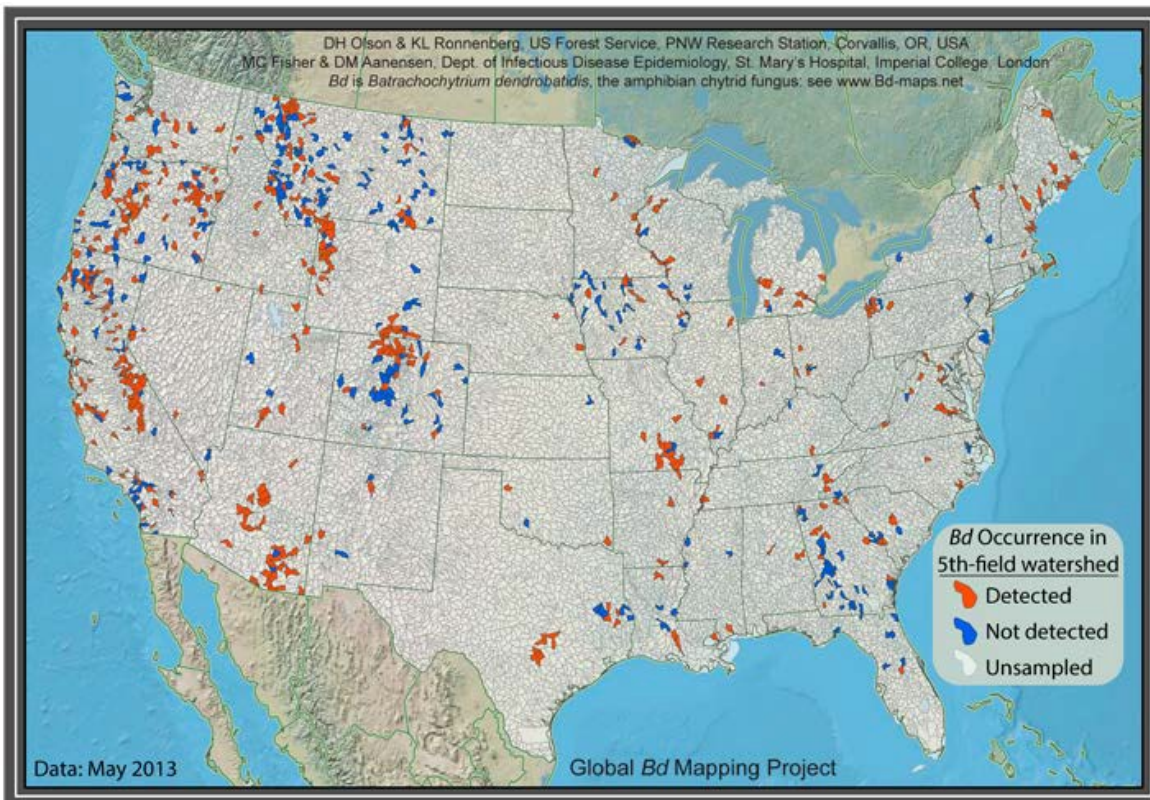
#### KEY FINDINGS:

The Global Bd Mapping Project, begun in 2007, enabled the development of a Bd surveillance database that details the occurrences of the fungus and the species affected. As of May 2013, the online maps represented the records of 40,380 animals, sampled at more than 4,000 sites. The fungus was present in about 40 percent of the species tested and in nearly two-thirds of the 82 countries sampled.

- Analysis of the Bd data in terms of all affected species at global and USA-only scales revealed patterns of occurrences in association with various environmental and biological factors. In general, Bd incidence correlated strongly with the level of species richness within amphibian communities. Climate-related factors, such as the ranges of precipitation and temperature at different sites, were dominant predictors of the odds of Bd occurrence, suggesting that climate significantly influences Bd occurrence.
- Separate assessments on three families—toads (bufonids), “true” frogs (ranids), and tree frogs (hylids)—showed wide-ranging differences in patterns of infection. This likely reflects environmental traits specific to each group.
- The fungus’s overall spatial distribution varies greatly, and it is apparently still spreading rapidly into new geographic areas



Researchers have tested amphibians for Bd at more than 4,000 sites around the world. The series of online



Sites across the continental United States where Bd has been found.

## LAND MANAGEMENT IMPLICATIONS

- *Bd*-maps.net is being accessed by land, species, and disease managers and other decision makers to assess chytrid risk at local, regional, and global scales and develop policies to forestall the spread of disease. The *Bd* data has been applied to issues such as amphibian trade regulation, disinfection protocols for field personnel, and human mediated water transfers.
- As the first major effort to map a global wildlife disease, based on the cooperation of an entire world biological community, the Global *Bd* Mapping Project serves as a model for other such efforts in confronting emerging infectious diseases and fostering wide-spread social networking among scientists and managers. The project's novel approach of displaying a global surveillance database online in an interactive format is being applied to create the Rana Virus Reporting System.
- The gains in understanding chytrid disease dynamics, associated environmental factors, and susceptibility among taxonomic groups is prompting new avenues of scientific study and potential management strategies for supporting vulnerable amphibian populations

**Iowa Chapter of the American Fisheries Society Annual Business Meeting  
Iowa Chapter AFS Meeting – Hilton Garden Inn Council Bluffs, IA  
4:00 PM, Tuesday, February 18, 2014**

**CALL TO ORDER**

The meeting was called to order by President Ben Wallace. Ben Wallace introduced EXCOM: Secretary/Treasurer: Dan Rosauer, Past President: Kim Bogenschutz. In attendance at the beginning of the meeting were 48 chapter members.

**TREASURER'S REPORT**

Treasurer's report was given by Dan Rosauer. The chapter started the year (1/1/13) with a balance of \$13,393.60 (4,329.33 in cool water, 1,300 in warm water and 7,764.27 available for AFS). Disbursements since the last financial report equaled \$23,021.11 and receipts equaled \$27,958.84. 2013 and the beginning of 2014 had money for two culture meetings being held by AFS resulting in increased bank activity. Both meetings were profitable and a \$100 donation for each meeting was given to IA AFS. There will be money left in the account for the next Warm Water Fish Culture Workshop. Noteworthy activity on the account included 2012 REAP Alliance dues \$150, \$100 for the Iowa Environmental Council, \$250 to Iowa Conservation Alliance, \$500 ISU scholarship presented to Cole Harty. Receipts came from membership dues, annual meeting activities and a continuing education class on PIT tags.

Proposed budget keeps payments to Iowa Environmental Council, REAP Alliance, Iowa Conservation Alliance and 2013 ISU scholarship. Caleb Schnitzler motioned to approve the financial report, Randy Schultz seconded. Unanimous vote, budget approved.

**COMMITTEE REPORTS**

**Audit: Ben Dodd.** Ben Dodd reviewed and approved the financial report. Ben Dodd will remain as auditor.

**Membership: Kim Bogenschutz.** There was an increase to ~100 members last year likely due to the proximity of the annual meeting to the fisheries bureau statewide meeting. The discussion of lifetime membership fee discussed last year has not moved. The proposal was a lifetime membership fee of \$200 and the issue was if the chapter increases the membership fee in the future. The EXCOM will look into the lifetime membership.

**Best Paper: Chad Dolan**

Chad was not present but Ben Dodd mentioned judging would happen for Iowa people.

**Resolutions committee: Donna Muhm.**

Donna was not present

**Nominations: Gary Siegwarth**

Gary was not present

**Program Committee: Alan Pattillo**

Alan was not present

**Student Affairs: Clay Pierce**

No report, he was not aware he was the chair.

**Student Subunit: Carlos Camacho**

Activities this year included: helping with trout stocking at Ada Hayden, habitat projects at Ada Hayden and Dakins Lake, hosting a fly tying class. Several students are heading to New Zealand for a fish ecology class. T-shirts are being sold at the meeting for \$15. The student subunit is looking for opportunities to get into the field more, if anyone has an opportunity please contact Benjamin Dinkins.

**Continuing Education Committee: Clay Pierce.**

Clay provided a handout summarizing the 2013 PIT tag class and history of the continuing education classes. He requested idea for future classes. He thanked Ben Dodd and Andy Otting for setting up the PIT tag class. Chris Larson suggested a GIS course and the discussion turned to how that could satisfy the fisheries FACT training as well as being a continuing education class. Mike Hawkins was suggested as an instructor for the course.

Jeff Kopaska suggested that FAST be updated and reprogrammed within 2-3 years. There were discussions with Slipka at the Midwest meeting to reprogram FAST for Windows 7&8.

**Technical Committee Reports****Walleye Technical Committee: Donna Muhm.**

Donna was not present. It was mentioned that there would likely be a combined meeting this summer between the esocid and walleye technical committees.

**Centrarchid Technical Committee: Lewis Bruce.**

Winter meeting was held at the Midwest meeting. There was also a symposium at the national AFS meeting in Little Rock that had two Iowa presentations. The 2014 summer meeting will be July 22-24 at the Radisson in Madison, WI.

**Rivers and Streams Technical Committee: Greg Gelwicks.**

The spring meeting had a theme of "History of Stream Management", there were good speakers giving different perspectives. Martin Konrad represented Iowa.

There will be a meeting April 1<sup>st</sup> and 2<sup>nd</sup> on the economics of river and stream management. The Iowa DNR will likely have limited opportunity for reimbursement but talk to Greg Gelwicks if you are interested in attending.

Greg Gelwicks is looking for rivers and stream projects to put together a state report, this is typically listed on the technical committee website.

### **Salmonid**

Ben Wallace indicated this committee may be defunct. Randy Schultz informed the group Phil Moy is pushing to revive the committee.

### **Esocid Technical Committee: Jonathan Meerbeek.**

Jonathan was not at the annual meeting but the notes are on the technical committee website. About half of the states provided reports. Some states are concerned with regulations but there doesn't seem to be a lot of activity overall with esocids.

### **Ictalurid Technical Committee: Dan Kirby.**

Dan provided a summary of Iowa activities at the meeting at the Midwest conference but has not seen the minutes for this year yet.

Kim Hawkins asked about the attendance of the technical committees. Jonathan Meerbeek reported one attendee from WI and 3 from MN at the Midwest meeting so there was not a ton of information shared.

### **Fish Culture Section: Alan Johnson**

No report.

### **NCD: Not able to attend**

### **Awards:**

Past President: Kim Bogenschutz

Secretary Treasurer: Andy Otting

Best Student Paper: Ryan Hupfeld, "Excessive Summer Shovelnose Sturgeon Mortality in the Des Moines River and Potential Impacts of Climate Change"

Best professional Paper: Quniton Phelps, "Fin Ray Chemistry Reveals Sturgeon Environmental History"

Best Student Poster (Tie): Kyle Bales, "Age-0 Lake Sturgeon Prey Selectivity"

Best Student Poster (Tie): K.J. Stahr, "The Role of Aquatic Vegetation in Regulating Juvenile Bluegill (*Lepomis macrochirus*) Growth and Abundance in Iowa Impoundments"

**Old Business:**

Donation levels to lobby groups was discussed, memberships and payments were mentioned but there were no questions or discussion.

Ben Wallace discussed efforts supported by IA AFS by the ICA

- Letter to Governor Branstad on deer management

- A paddlefish season bill

- Request Farm Bill subsidies be tied to conservation practices

Andy Fowler asked if the Iowa Environmental Council (IEC) activity was worth the donation annually.

IEC seems to be more active in land and water where the Iowa Conservation Alliance represents more consumptive groups. It was mentioned that the REAP Alliance is pretty quiet but remains important to support. Dan Kirby mentioned the IEC in water policy and why we supported in the first place.

Bernard Schonhoff suggested a motion and second to discuss if we need to remove funding. This would clarify what the discussion was about. Ben is going to look into what the IEC does for support. Martin Konrad mentioned IEC contacted him while he was putting together the packet of information for the suggested turtle regulations.

Jeff Kopaska questioned the ICA about pending legislation regarding drones.

- NE has used drones to map habitat along the Niobrara River

- This is a potentially useful tool in fisheries

- The DNR is likely seen as a law enforcement agency and may be limited in use

- The bill number was not known at this time

**New Business:**

Ben Wallace mentioned the upcoming investment opportunities through the parent chapter.

- Reduced management fees while under the parent society umbrella

- Dan Rosauer brought up the low interest rate at the State Bank and no return on the checking account at US Bank

- Ben mentioned the only money to potentially invest is money not needed for yearly operations

- More information will be available in the future when the parent society gets things finalized and out to the chapters

Scott Gritters wants a resolution on turtle harvest. He is concerned for the species getting pummeled. A resolution for the proposed rules for turtle harvest.

Kim asked Martin Konrad the time frames to get information to Martin before submitting the preclearance information packet to the governor's office on turtle regulations per Executive Order 80. He needs to show that a restrictive season is more important than the impact on commercial fishermen. His goal is to have the preclearance package done by April 1.

Gritters still wants a letter drafted and waiting in the wings for when it would be appropriate. This is based on the concern of the boom and bust cycle we are currently in with turtles. Martin was willing to draft the letter. Jeff Kopaska mentioned this is an area the membership can vote electronically for or against the issue.

Scott Gritters motions to vote on a letter, Jeff Kopaska second. Passed – unanimously.

Michael Webber brought up potentially contributing money to David Willis scholarship.

Dray Walters motioned and Jim Wahl seconded

Mark Flammang discussed the importance of Dave Willis to fisheries and the Iowa DNR

Mike Steuck questioned if this would be a onetime donation or an annual donation

The basis for the scholarship is unknown so that question could not be answered

Kim Bogenshutz mentioned that the SDSU foundation already had a scholarship.

Jeff Kopaska amended the motion to allow the EXCOM to spend up to \$500 one time for the Dave Willis Scholarship when it becomes finalized, Mike Steuck seconded. Vote on amendment passed unanimously.

Jeff Kopaska motioned to vote on the motion, Mike Steuck seconded – Passed – Unanimously

### **Adjourn.**

Bernard Schonhoff motioned to adjourn, Caleb Schnitzler seconded. Passed – unanimously at 5:06pm



2014 IOWA/NEBRASKA AFS MEETING



Iowa Chapter President Ben Wallace congratulates Past President Kim Bogenschutz for her excellent work during her tenure as 2012-2013 Iowa Chapter President.



Iowa Chapter President Ben Wallace congratulates Andy Otting for his excellent work during his tenure as 2010-2013 secretary/treasurer.



Dan Rosauer (current secretary/treasurer) is looking into possible embezzlement charges against Andy Otting.... suspicion started when Andy outbid everyone for the coveted "two dogs in some field" print at the 2014 auction. Although Dan might be harboring hard feelings since Andy told him the secretary/treasurer position was "fun" and he should run unopposed.



Andy Otting ~Highest bidder for "Two Dogs in Some Field" ~2014

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.