IOWA CHAPTER OF THE AMERICAN FISHERIES SOCIETY NEWSLETTER
August 24, 2012

LATERAL LINES

Project Aware removes trash from the Iowa River ~page 22

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PRESIDENT'S CORNER–Chad Dolan

Hello everyone! I hope you had a great summer. I'm sure it's been busy and exciting for all. This is my last "President's Corner" as my term as Iowa AFS President has now come to an end. The past year sure went by fast! Thanks for all your support during my term. I will gladly continue to serve on the Iowa AFS ExCom as Past President over the next year. Please join me in welcoming Kim Bogenschutz as she steps into the role of President. Kim will do an excellent job for Iowa AFS! Andy Otting will continue to serve as Secretary/Treasurer and Ben Wallace is the newest member of the Iowa AFS ExCom, recently being voted President-Elect.

Iowa AFS was very active throughout the past year, especially in confronting the issues surrounding the use of lead fishing tackle and ammunition. Numerous letters were drafted expressing Iowa AFS' position against banning the use of lead fishing tackle and ammunition in the absence of definitive data suggesting population-wide impacts. Ultimately, no statewide ban on the use of lead fishing tackle and ammunition was implemented.

Iowa AFS and DNR also partnered to host the 2011 Midwest Fish and Wildlife Conference this past December. Many can attest to the fact that planning this meeting was a great deal of work, but also very rewarding as the conference certainly reflected the determination and professionalism of Iowa Fisheries and Wildlife staffs. I was personally involved, along with Jeff Glaw (Iowa Wildlife Society President), in student paper judging activities. The paper and poster award winners for the 2011 Midwest Fish and Wildlife Conference are: Ruth Briland, Ohio State University (Fisheries Best Paper); Jeremy Grauf, University of Nebraska-Lincoln (Fisheries Best Poster); Ryan Stutzman, University of Nebraska-Lincoln (Best Wildlife Paper); and Molly Gillespie, Iowa State University (Best Wildlife Poster). I should also mention that Iowa AFS (along with TWS) organized the Midwest Fish and Wildlife Conference Raffle which generated nearly $2000 for each organization.

Another of this year's highlights is that construction of the dam on Iowa's newest lake (Lost Grove Lake near the Quad Cities) was finished in late June. After close scrutiny by numerous engineers and inspectors, DNR fisheries personnel were given the nod to close the gate and begin impounding water. Gate closure occurred at 12:35 p.m. on July 11. A small, temporary earthen dam built by the contractor to keep the construction site free of water resulted in the development of a respectable pool prior to the date of closure. Enough water was present to permit the stocking of 100,000 bluegills in the main lake on July 18. Expectations are that it will take approximately 2-3 years for Lost Grove Lake to reach full pool elevation, at which time it will have a surface acreage of approximately 400 acres. Its small watershed to lake area ratio (13:1) will dictate a slow fill time, but also result in superb water quality conditions. A high quality lake environment will prove beneficial to the numerous game species that will be stocked in the lake including bluegills, redear sunfish, largemouth bass, channel catfish, black crappie, walleye, and muskellunge. Iowa AFS contributed $500 towards the purchase of rock for use as fish habitat in what's sure to be one of Iowa's gems.

Iowa AFS held its 2012 Continuing Education Course August 7-9, 2012 at Iowa State University, Ames, Iowa. The topic of this year's workshop was "Turtle Biology, Identification, and Sampling Methods". The course was well attended by Iowa DNR Fisheries staffs as well as Iowa State University staffs, faculty, and students. The course featured both classroom instruction as well as field work in which attendees set turtle traps, captured numerous turtle species, and collected data from these animals. Thanks to all those that attended and made this workshop an overwhelming success!

There's no doubt it's been a rough summer for fish throughout the state. Drought conditions have led to low water levels and extremely reduced flows in our streams and rivers, and subsequently, stress on many of our fisheries. Rain was just not in Mother Nature's plan so far this year. Never fear! Summer will soon turn to fall and, potentially, along with this transition comes hope for rain. Many of us will soon be gearing up for the fall field season as well as traveling to nearby lakes to enjoy a little fishing on days off. Glad we all have the same common goal of preserving and improving fisheries throughout the state. After all…Fishing is the "Reel" American Pastime!

Newsletter of the Iowa Chapter
of the American Fisheries Society
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Nominations.....Donna Muhm

REAP……..……Ben Dodd

Best Paper .....Chad Dolan

Newsletter Editor…....Kim Hawkins

Welcome President-elect: Ben Wallace

Ben received a BS in Animal Ecology with an option in Fisheries from Iowa State University in 2007 and an MS in Fisheries and Wildlife Sciences from North Carolina State University in 2010. While attending ISU Ben worked seasonal fisheries jobs around the state of Iowa for different fish management districts. At NCSU Ben's study focused on trout population and production dynamics in Appalachian Mountain streams. Ben served as the president of the NCSU Student Fisheries Society in 2008, which was recognized as the Outstanding Subunit of the Southern Division for that year. After a successful defense in December of 2009 Ben returned to Iowa to serve as a DNR/AmeriCorps employee at the Black Hawk District Office. In the spring of 2010 Ben officially graduated from NCSU and around the same time was offered a job as the fish management biologist for the Black Hawk District. Since then Ben has been thoroughly enjoying his employment with the DNR and is looking forward to working with and learning from all of the fisheries staff around the state.

2012 Continuing Education

Turtle Workshop

The 2012 Iowa AFS Continuing Education Course was held August 7-9, 2012 at Iowa State University. This year's topic was "Turtle Biology, Identification, and Sampling Methods". Nearly 25 people consisting of Iowa Department of Natural Resources (Iowa DNR) personnel and Iowa State University (ISU) faculty, staffs, and students were in attendance. The course was held in preparation for nine Iowa DNR fisheries units joining in a cooperative statewide turtle monitoring effort; moreover, all units were provided with the sampling gear needed to effectively collect turtles. Course participants were presented in-depth information on the biology and life history of numerous turtle species (e.g., paint, snapper, softshells, slider, maps). Attendees were also instructed regarding proper handling techniques for Iowa's more aggressive turtles (i.e., common snapper and spiny softshells), and learned about turtle identification, sex determination, sampling methods, and data collection. During the afternoon of day two of the course, participants took to the field to set turtle traps at three sample sites in the Ames/Boone area including the Des Moines River, Carlson Pits, and Mabaska Marsh. A total of eighteen nets were set across the three designated sample locations. After receiving a short briefing on turtle data management and population assessment on the final day of the course, participants were divided into three crews and given the assignment of lifting nets and collecting turtle data at one sample site. Species collected during the field portion of the course include the western painted turtle, common snapping turtle, smooth softshell, and spiny softshell turtle. All captured turtles were given a unique tag code (drilling of a combination of marginal scutes or notching) and released. The level of commercial turtle harvest in Iowa has steadily increased in recent years, driven partially by the demands of the Asian market on turtles worldwide for food and medicinal uses. Turtles are slow to reach sexual maturity, they're long-lived, and their nests are extremely vulnerable to furbearing predators. Loss of turtle habitat such as destruction of wetlands or water quality degradation in streams and rivers is also a grave concern. It is unclear whether turtles can sustain the increased pressures of commercial harvest (in combination with sport harvest) long-term. Iowa DNR turtle monitoring data are essential to the future management of these unique reptiles.

Effects of Black Bullhead and Common Carp on Aquatic Ecosystems of Experimental Mesocosms

Submitted by: Jesse Fischer and Michael Quist

Funding agency: Iowa Department of Natural Resources

Period: January 1 – March 30, 2012

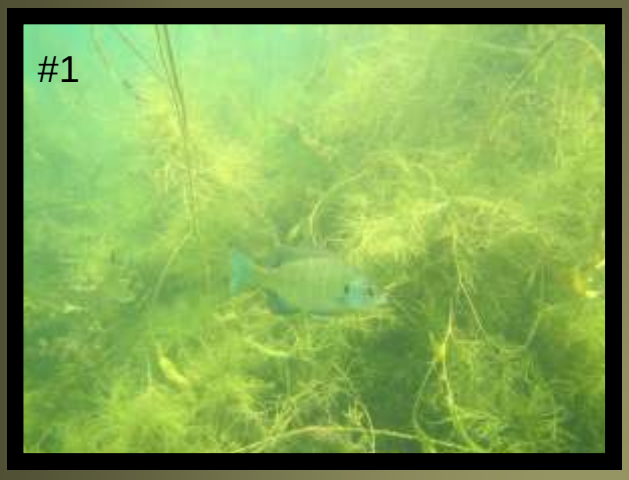
Understanding the interaction and interrelationships between biological community structure and water quality is critical for the management and restoration of aquatic systems. The effects of common carp *Cyprinus carpio* and black bullhead *Ameiurus melas* on water quality (e.g., nutrients, turbidity), macrophytes, benthic macroinvertebrates, and zooplankton were evaluated in experimental mesocosms during the summer of 2009. Treatments included stockings of

no fish (control), common carp, black bullhead, and the combination of common carp and black bullhead.

Effects on abiotic and biotic conditions in treatments containing common carp were detected, regardless of black bullhead presence. We observed negative impacts associated with common carp on water clarity (i.e., increased turbidity), nutrient resuspension (i.e., increased ammonium, nitrate, and phosphorus concentrations), macrophytes (i.e., decreased biomass), and benthic macroinvertebrates (i.e., decreased abundance and biomass). In contrast, black bullhead increased chlorophyll *a* concentrations, but had little or no effect on other measured water quality and biological variables when compared to control conditions. Overall, results of this experiment suggest that although black bullhead tend be tolerant of degraded ecosystems, they are not causing physical changes to the environment known to be responsible for perpetuating degraded water quality (e.g., stable state shifts). Therefore, increases in the abundance of native benthivorous species such as black bullhead following the invasion of common carp in aquatic systems should serve as an indicator of ecological conditions and not be assumed as causative. A manuscript based on this work is currently in revision with *Hydrobiologia*.

How well do you know your aquatic vegetation when it is not lying in your hand?

~Lewis Bruce, Iowa DNR



#1: Coontail, Longleaf pondweed, Sago pondweed

#2: Largeleaf pondweed

#3: Curlyleaf pondweed

#4: Wild Celery, Chara

#5: Narrowleaf pondweed, Coontail, Longleaf pondweed, Sago pondweed

Improvements Made to Several Shallow Iowa Lakes

~Jon Christensen, Iowa DNR

There are several shallow lake projects in northwest Iowa that are in full swing. Currently shallow lake improvement projects are underway at Pickerel Lake- Buena Vista Co., Lizard Lake-Pocahontas Co., Virgin Lake-Palo Alto Co., Trumbull Lake-Clay Co., Silver Lake-Worth Co., and Black Hawk Lake-Sac Co. The drawdown on Pickerel Lake started in the fall of 2010. Lizard Lake drawdown started in the spring of 2011. Virgin Lake was drawn down in the fall of 2011. Silver Lake was drawn down in 2012. Trumbull Lake and Black Hawk Lake were partially drawn down beginning in the spring of 2012. Rotenone will be applied on Black Hawk Lake to remove common carp. Improvements have also been made on other shallow lakes and wetlands in the state.

The dry weather that Iowa has had this summer has accelerated the drying process on these lakes. The drying period is crucial to compact the soft lake bottom to allow many species of emergent plants such as bulrushes and cattails to germinate and grow. The drawdown also eliminates unwanted fish species such as common carp which are detrimental to good water quality. Plant, fish, and wildlife populations will eventually be restored that have been out of balance for many years.

Pickerel, Virgin, Lizard, Silver Lake, Black Hawk Lake, and Trumbull Lakes are examples of shallow lakes that are survivors in Iowa. These lakes and others in the prairie pothole region of northwest and central Iowa are the last existing evidence of several large associated wetland complexes that once covered Iowa. Iowa has countless dry lake beds and prairie potholes that didn't survive the draining and tiling process. The fertile soil from our lost prairies and wetlands yield good production of crops such as corn and soybeans. Much of the shallow lake basins and potholes lay hidden in these Iowa crop fields. Many of these shallow lake basins are quite large and are evident if you are traveling in Iowa's prairie pothole region. The wetlands and vast prairies that were once associated with these lakes were numerous and complex systems that served as filters for the natural and shallow lakes we have in Iowa. Most of the associated wetlands and prairies are gone now from the lakes' watersheds. Without their buffers and filters these lake systems have become unhealthy. Heavy rains have nowhere else to go and large amounts of water runoff into our shallow lakes. The shallow lakes have constantly been held in a high water condition. With the water that runs into these lakes large sediment loads in the form of soil and silt are also carried into the lakes. Rock and gravel that exist on the lake bottom are often covered with the silt and mud from the runoff into the shallow lakes. The rock and gravel are important to several aquatic plant and animal species. Emergent plants such as cattails and bulrushes are not able to survive in the deeper water. They also need the wet and dry cycles to germinate and thrive and eventually the emergent plants die off. The emergent plants act as a barrier to the main lake, protecting it from wave erosion caused by the strong winds we have in Iowa. The waves cause the soft bottom sediments rich in

Severe blue green algae blooms are capable of producing during warm weather in unhealthy shallow lakes.

nitrogen and phosphorous to become suspended deteriorating the water quality and causing algae blooms. Several of these shallow lakes have large populations of common carp which also eliminate desirable plants and stir up the bottom sediments. Desirable fish such as perch and northern pike that are typical inhabitants of shallow lakes have limited populations. Wildlife such as waterfowl, shorebirds, turtles, amphibians, and furbearers are gone due to lack of habitat and food.

Shallow lake improvement projects and efforts to remove common carp have already helped areas such as Diamond Lake, Dan Green Slough, and Lost Island. Outlet and inlet structures have been improved and modified on several lakes to keep common carp out of the lakes and to avoid movement of carp into potential spawning areas. Efforts are in the process and are still being made to improve our Iowa Shallow Lakes. The bulk of the work on our shallow lake improvement projects is supplied by Mother Nature. I have had the opportunity to work on several shallow lake improvement projects and I was quite skeptical that the plants would come back after being gone so many years. Nature has her way and with time the lakebed explodes into life. Moist soil begins to yield small emerging cat-tails, bulrush seeds that have been lying dormant for years sprout in rockier and sandier areas. Other plants such as burr reed, arrowhead, and sedge species also become evident. Terrestrial plants such as smart weed, reeds canary grass, cottonwood, and willow also grow in the dry lakebeds. Eventually the water is restored and the terrestrial plants die in the aquatic environment. The submergent plants soon return and plants such as sago pondweed, coontail, bladderwort, and northern milfoil may make their way back into the lake. Once the plants return wildlife also returns to the restored shallow lake. Aquatic insects are evident in the water and skies, leopard frogs and American toads are vocal in the spring. Numerous shore birds and waterfowl that have been gone for years return to the lake. Each time I go to Diamond Lake during the spring and summer I look forward to seeing the Forester's Terns and rarer Black Terns flying above the cattail stands. Shallow lakes that are considered deep enough to maintain a fishery will be restocked with species such as yellow perch and northern pike that are well suited for shallow lake habitat. The fish grow quickly on the plentiful food. Anglers, hunters, trappers, wildlife watchers, and others also return to our shallow lakes. It is absolutely amazing to watch a healthy ecosystem come back from something that once was nothing. Through the efforts of the Iowa Department of Natural Resources Fisheries and Wildlife Staff and many public and private partners life once again returns to the shallow lakes of Iowa.

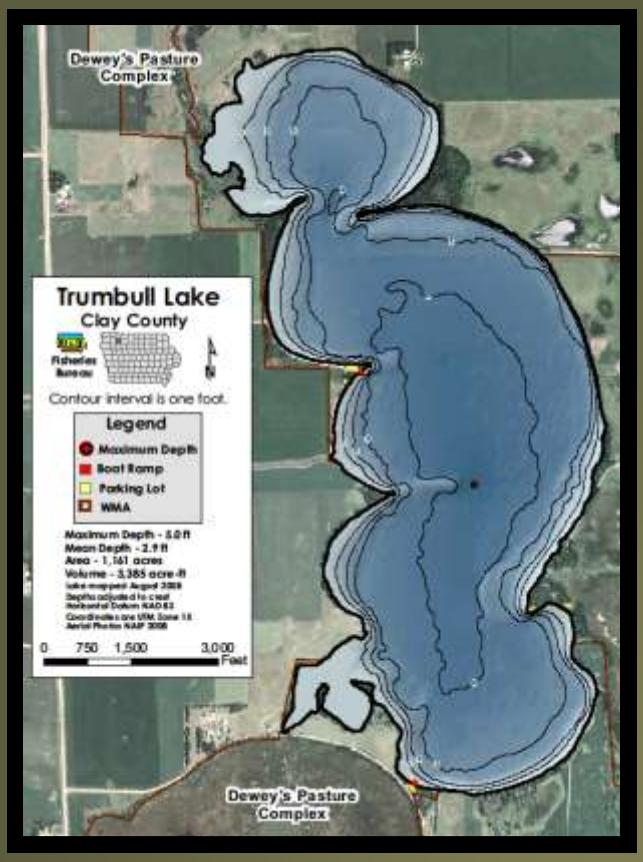
Good water quality and healthy aquatic plant communities can become evident through shallow lake improvement projects.

Virgin Lake

Virgin Lake was drawn down fall of 2011. Aquatic plants have germinated over the entire basin.

The lake was drained to reestablish vegetation and remove undesirable fish.

July 2012. Much of the vegetation has grown back on Virgin Lake. Terrestrial plants such as the smartweed visible in the photo will die out when the lake fills back up with water. Potential fill date of fall 2013.



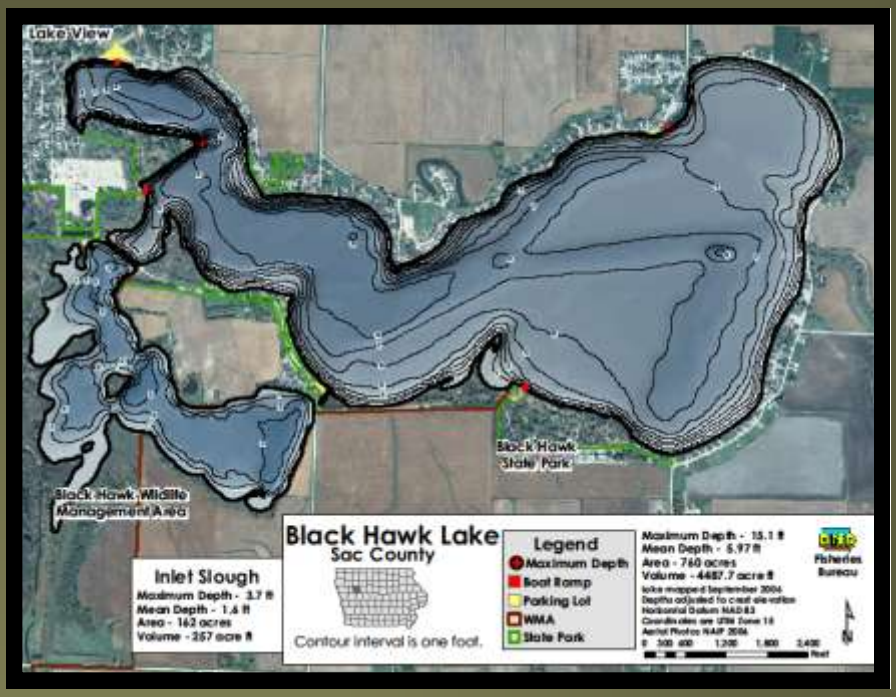
Trumbull Lake

The lake has a maximum depth of 5 ft, but has held a fishery partly because of the 50,000+ acre watershed that prevents winterkill. The Wildlife Bureau initiated a temporary, partial drawdown to improve shoreline habitat. The project was successful at restoring plants in the dewatered area, but drought conditions have not allowed us to begin refilling the lake. Fisheries and Wildlife staff are now exploring the option of doing a total renovation of the entire system.

July 2012.

Black Hawk Lake

Black Hawk Lake has been partially drawn down this spring to improve aquatic vegetation. Plans are being made to apply rotenone during the fall of 2012 to eliminate common carp and to improve the fishery. IADNR wildlife staff also took advantage of the draw down to burn State Marsh earlier this year to restore native vegetation in the prairies and wetlands.



Inlet to Black Hawk Lake. Note the exposed mud flats and dead fish.

July 2012. Dry bed of Carnarvon Creek, the only tributary to Black Hawk Lake.

Pickerel Lake

April 2011. Draining of Pickerel Lake and removal of old outlet structure.

New outlet/water control structure.

Fish barrier on the outlet structure. The overhanging fingers allow debris to flow over the barriers but keep carp from jumping up into the lake from downstream.

July 2012. Bulrushes, cattails, and other emergent plants are growing around the shoreline. Refill to 1 foot beginning Fall 2012/Spring 2013.

Lizard Lake

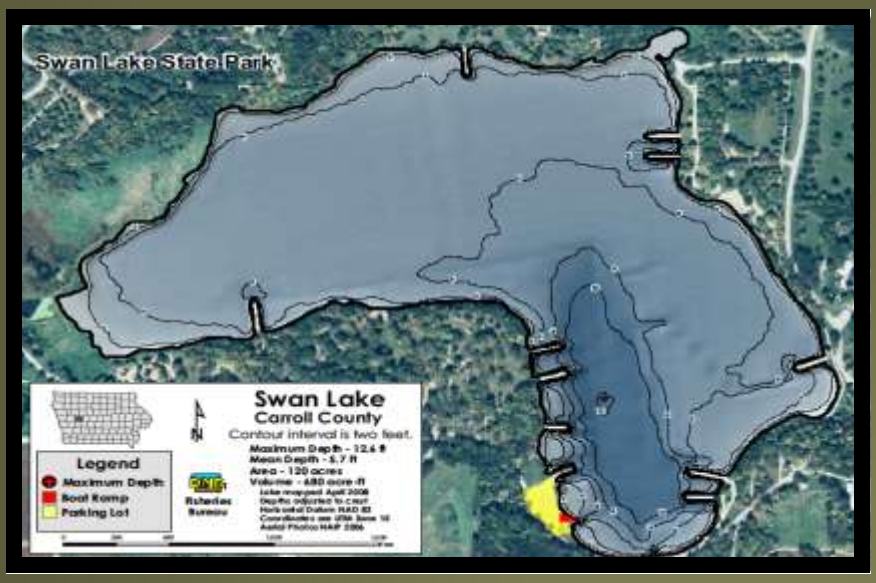
Lizard Lake during the early phase of the draw down (above). Lizard Lake after the draw down was complete Summer 2011. (right)

The old outlet structure at Lizard Lake (left). The new outlet structure at Lizard Lake with all of the stop logs removed to allow the lake to drain (right). The elevation of the new structure (with all stop logs in place) matches the elevation of the old outlet at the bottom of the notch.

The velocity tube installed downstream of the outlet structure on Lizard Lake. Left is the upstream end and right is the downstream end.

Spring 2012 stop logs put in to 3 foot under crest. Stocked with perch June 2012.

Swan Lake



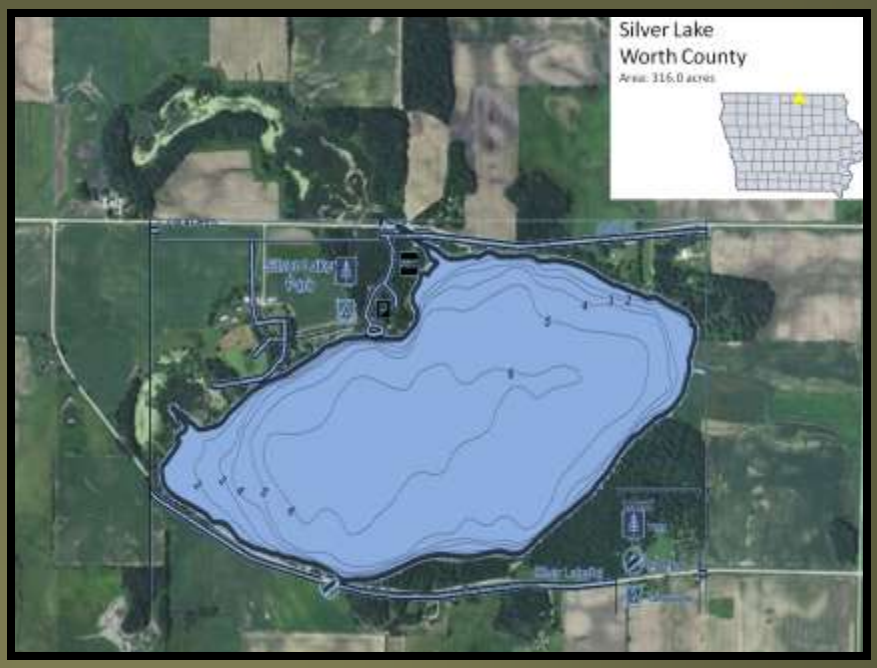
Black Hawk fisheries staff have been working closely with the Carroll CCB in efforts to re-establish emergent vegetation around the perimeter of Swan Lake. Siphoning and pumping efforts have taken the lake 4 feet below the crest of the spillway, which was the goal of the draw down project. There was a vegetative response to the draw down, however it was mostly annuals that came in, which was expected. The draw down will occur throughout the 2013 season in order to establish a good stand of perennial vegetation, such as bulrush and cattails.

Godwin pump moving water off of Swan Lake.

Summer 2012. Exposed mudflats in upper end of Swan Lake.

Silver Lake

Silver Lake water control structure work is complete. The contractor needs to finish grading the flow path out from the structure. The plant community response has been good. There is a good stand of bulrush establishing with several other species of aquatic plants coming as well. The lake is completely dry, so no rotenone application will be needed this fall. Water levels will slowly be brought up in 2013 and initial fish stockings will take place.



Ventura Marsh

The marsh is in the middle of the draw-down phase. Vegetation response is been great. A small amount of rotenone will be needed to eliminate a few carp that remain after the drawdown and winter renovation efforts. A project will be let to create a sediment basin and flow path on the southwest side of the marsh. This will treat two tile sources and allow for better retention of inflows.

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24 May 2012

Mr. Andy Fowler
President, Iowa Chapter of AFS
Chariton Fisheries Research Station; Iowa DNR
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Chariton IA 50049

Dear Mr. Fowler,

Thank you and your organization for your continued dedication to and support of learning and professional development of our students.

Your scholarship contribution to the Department of Natural Resource Ecology and Management (NREM) at Iowa State University helps some of our top students defray the rising cost of a university education. It also sets them on a pathway toward greater success. In reviewing scholarship applications, I am always taken aback by the number of outstanding candidates and of the financial need they articulate. It gives me great pleasure to be able to assist in relieving that need as the Scholarship Committee Chair.

Enclosed you will find a letter of thanks from Grant Scholten for the Iowa Chapter American Fisheries Society Scholarship that your organization sponsors. As you will see, our students are most appreciative of the assistance they get from this award.

Thanks again. We appreciate your organization's willingness to support our students with this award. I look forward to assisting next year's round of applicants!

Sincerely,

Lisa Schulte Moore
NREM Scholarship Committee Chair

Andy Fowler,

I am honored to be one of the recipients of the American Fisheries Society scholarship. Thanks to your generous support I will use the scholarship money to purchase some books that I will need for graduate school in the near future.

I have just ended my undergraduate career at ISU and am very excited to begin my future. I plan to go on to graduate school to get my master's degree in biology under the supervision of an advisor who is competitive in my field. After this I will see what is out there for opportunity, whether it be augmenting my education with a PhD or obtaining an entry level biologist position. I do not care where I end up working. I am just excited about fisheries work!

Volunteering with the IDNR has been among the most fulfilling memories I have experienced during my undergraduate career. I understand that gaining this experience is crucial to excel in fisheries. For this I thank you for the opportunity you have provided me both through financial support and with the many volunteer opportunities that allowed me to be competitive for this award.

Sincerely, Grant Scholten

Visitors in the Field

~Mark Winn, Iowa DNR

What started out as a typical day in the field ended with an amazing visit from a curious critter. On this specific day we had set out to do our annual trout stream assessment of all species within Hewitt Creek. For years we have had a Biomark PIT tagging kit that we had purchased and decided to tag some brown trout for some growth information purposes. This was our first stop in working up brown trout when something out of the corner of my eye caught my attention. As I looked the fawn's way, I could see mother jump the fence and off she went. The fawn I could tell was still wet and very unstable on its feet. It lay down in some taller grass for about twenty minutes just downstream of where we worked our fish and went about doing our business. Next thing we know here is this little fawn heading our way, she mingled about our business for about ten minutes and then moved on to discover other wonders of nature.

NORTH CENTRAL DIVISION OF THE AMERICAN FISHERIES SOCIETY
Walleye Technical Committee

Walleye Technical Committee

Midwest Fish and Wildlife Conference Student Travel Grant

"Sander Award"

Purpose: To financially assist a student conducting research of interest to the Walleye Technical Committee (WTC).

Description: A grant of $100 from the WTC of the North Central Division of the American Fisheries Society.

Eligibility Criteria: The recipient of this award must be a student who is currently enrolled in a college or university for a degree program. Preference will be given to those involved in research of interest to the WTC.

Documentation required: An application letter from the student that includes: student's name, address, telephone number, educational institution, department, degree level, a short description of current research, reasons for wishing to attend the meeting (paper or poster presentation, pertinent paper session, sub-unit business and/or technical meetings), and reasons why financial assistance is needed.

Selection Criteria: The Operations Subcommittee of the WTC will evaluate applicants based on the following criteria:

a. AFS involvement (reasons for attending the meeting).
b. Relevance of research to the goals of the WTC.

Frequency of Award: The WTC will select one recipient each year.

Deadline: The deadline for receipt of completed applications by the Chair of the WTC is September 28.

2012 Chair of WTC is Paul Christel: pchristel@cheqnet.net

*The Chair of the WTC will request matching funds from the student's AFS Chapter (total award up to $200), however there is no formal arrangement that guarantees matching funds.

IOWA DNR NEWS
IOWA DEPARTMENT OF NATURAL RESOURCES
CONSERVATION AND RECREATION DIVISION | NEWS.IOWADNR.GOV

PROJECT AWARE REMOVES TONS OF TRASH FROM THE IOWA RIVER

By Joe Wilkinson

Iowa Department of Natural Resources

Hard work. Summer heat. Dirt and Grime. Oh, and you're wet much of the time. The recipe for a week's vacation? It was for Iowa's Project AWARE paddlers. Again.

By now, the couple hundred volunteers have hosed down their canoes, kayaks and lifejackets. Probably the clothes they wore, too. They were too grimy for the washing machine. Yet many of them keep coming back.

"Somewhere between breakfast, getting out on the river—getting *extremely* dirty—and another exhausting day, the magic happens," explains AWARE coordinator Brian Soenen.

He plans AWARE from the DNR's Geological and Water Survey bureau in Iowa City. Lots of on-scene support comes from the staff there, too.

"Looking back at what you've done; feeling the pain from all the work…people internalize that. There is something about it that gets in your blood and keeps you coming back for more."

Maybe it's the dumpsters of garbage which will be sorted and recycled…rather than jutting out of the river in the years ahead. Maybe it's floating down those rivers for a day, or a week…knowing that you're making a difference.

"It's a lot of fun. We're getting a lot done. Somebody has to do it," states Darrell Brotherson of Cedar Bluff; one of the volunteers who helped pull garbage out of the Iowa River all of last week in north and central Iowa. "Not a better group in the world to do it than us. Take a look at these people."

Just short of the halfway point Friday, on-shore volunteers were ankle deep, emptying the paddlers' haul as they coasted in to a sandbar on the low-flowing Iowa River near Union. Or was it Lipscomb? AWARE passes close to dozens of Iowa towns.

Brotherson brought in an assortment of cans…and a fence-post, anchored in a bucket of cement. "It was just up there on an eroded riverbank. I'm sure it was part of a farmer's fence at one time. Just got ripped out by the ice," he speculated.

Metal posts and scrap metal make up a lot of the volume. Thousands of beverage containers are sorted along the way. And tires. LOTS of tires.

"This year was dubbed 'the Year of the Tire,' smiled Soenen. "We pulled out 1,350 of them; nearly 60 tons of trash altogether. That's a record."

Swing sets, bicycles, engine blocks, inner tubes, shed doors, twisted docks and LOTS of plastic go into the canoes.

An abandoned meth lab? A couple have shown up. Volunteers are instructed in what to look for, how to avoid one and to report it.

Nothing surprises veterans of AWARE, which marked its 10th year targeting the Iowa River from about Clarion to Marshalltown.

A very low-flowing Iowa River, by the way. On one hand, more trash is visible. On the other, you can't haul out as much. "You're riding lower in the water. You're dragging bottom before long. The volunteers work incredibly hard to get it in; still filling boats with garbage," applauded Soenen. It also meant shorter routes on some days; since the floats were slower and there was more walking than in previous years.

At the end of each day's float, volunteers shuttle their canoes to that night's overnight stop…or pull out of the water there. From there, it's time to clean up, eat and relax. Maybe explore the area.

Organizers have infotainment sessions for the evenings. Come morning, it is breakfast…announcements for that day's float… and then back at it. All with one purpose.

"We are able to help clean that (stretch of the river) up. It helps the landowner, the community and the quality of life," summarizes Soenen.

"Instead of having all this garbage along the river, that might deter recreation or blemish an otherwise beautiful river… these volunteers give back to those communities; in many cases their own community. They make things a better place."

A short break. Then planning starts for AWARE 2013.

Photos courtesy: facebook: IowaProject Aware.

ZEBRA MUSSELS FOUND IN BLUEBILL LAKE

The Iowa Department of Natural Resources (DNR) recently found zebra mussels on a sampler in Bluebill Lake. The sampler was placed in the lake specifically to monitor for zebra mussels because of the lake's proximity to Clear Lake, which has had zebra mussels since 2005. Bluebill Lake is a 40-acre lake located 4 miles south of Clear Lake.

"We put zebra mussel samplers in lakes surrounding Clear Lake as an early detection system," said Scott Grummer, the fisheries management biologist for the Clear Lake District. "Unfortunately, the sampler in Bluebill Lake came up positive for zebra mussels."

Zebra mussels look like small, D-shaped clams that have alternating light and dark bands. Most are less than one-inch long.

Zebra mussels are native to the Caspian Sea region of Asia and were introduced into the Great Lakes in the 1980s from ballast water of oceangoing ships. They spread from the Great Lakes to the Mississippi River and were first documented in the Mississippi River in Iowa in 1992.

Bluebill Lake is the state's fourth interior lake confirmed to have zebra mussels. Clear Lake, Lake Delhi, and Rathbun Lake are the others.

Zebra mussels are filter feeders that attach to underwater surfaces using fibers called byssal threads. They can interfere with aquatic food chains, kill native mussels, and clog water intakes. And there's no getting rid of zebra mussels once they are in a lake or river.

DNR biologists plan to continue monitoring Bluebill Lake to determine the abundance and distribution of zebra mussels. Divers will be used to search underwater surfaces in August.

The DNR has increased its monitoring at Bluebill Lake and posted information at the boat ramp about preventing the spread of zebra mussels.

The documentation of zebra mussels in Bluebill Lake highlights the spread of invasive species in Iowa waters. The zebra mussels in Bluebill Lake probably arrived on or in a boat that had picked up the mussels in an infested water body, likely nearby Clear Lake.

Young zebra mussels are microscopic and can be unintentionally transported with water in bilges, live wells, or bait buckets. Adult zebra mussels can attach to boats, trailers, and aquatic vegetation.

"For boats that are trailered between water bodies, a critical step is to drain the bilge and live wells before leaving a boat ramp to make sure you are not transporting young zebra mussels, " said Kim Bogenschutz, the DNR's aquatic invasive species program coordinator.

"Boaters and anglers can unintentionally spread zebra mussels and other aquatic invasive species if they do not take the proper precautions – clean, drain, dry – after each time out on the water."

- ◊ CLEAN any plants, animals, or mud from boat and equipment before leaving a water body.
- ◊ DRAIN water from all equipment (motor, live well, bilge, transom well) before leaving a water body.
- ◊ DRY anything that comes into contact with water (boats, trailers, equipment, boots, clothing, dogs). Before transporting to another water body either: Spray your boat and trailer with hot, high-pressure water; or Dry your boat and equipment for at least 5 days.
- ◊ Never release plants, fish, or animals into a water body unless they came out of that water body and empty unwanted bait in the trash.

It is illegal to possess or transport prohibited aquatic invasive species such as zebra mussels in Iowa. The fine for violating this law is $500. Signs are posted at public accesses to remind boaters to stop aquatic hitchhikers and to identify infested waters. More information about aquatic invasive species and a list of infested waters can be found in the 2012 Iowa Fishing Regulations booklet.

MEDIA CONTACT: Kim Bogenschutz, Fisheries **Bureau's Aquatic Invasive Species Program, Iowa** Department of Natural Resources, 515-432-2823.

State Record Bighead Carp

~Mark Flammang, Fisheries Biologist, Iowa DNR

This afternoon I had the dubious responsibility of verifying a new state record bighead carp. Given all the attention Asian carps are receiving as of late it's clear this is one group of fish where it never pays to be the first to report a sighting or a big catch. I also understand that we no longer recognize state records for Asian carps but this one just speaks volumes when you see it. The particularly troubling piece of information was the source of this fish. It was captured by Larry Sparks on June 15 out of LAKE RATHBUN. Larry was tossing a rattletrap and snagged into this monster off of the Island View handicap accessible pier. The weight was verified by Burell's meat Locker in Moravia Iowa this afternoon and the final weight was 93 lbs 8 oz and was 56 inches long. That shatters the previous record of 79 lbs 3 oz. Interestingly, they dropped the fish and the head broke off there was simply so much mass involved. The fish was a gravid female. Larry is an avid angler and he understands the repercussions of such a collection. This is not the first report we've had over the years of bighead or silver carp in Rathbun, but it's the first one verified by a specimen.

IN THE NEWS

Background of blue-green algae blooms

By Steve Weisman

Outdoor Editor

Remember the old adage, "dog days of summer?" Well, I think we're right in the middle of it, and with it comes a variety of concerns.

Obviously, lack of water is putting a huge stress on our crops, and as I write this column, there seems to be little opportunity for significant rainfall. As bad as it is around here, most of Iowa is in worse shape than we are here. According to the Water Summary Update provided by the Iowa DNR, the mid-July water conditions, show northwest Iowa has slipped into the abnormally dry level with drought conditions continuing to increase in eastern and central Iowa.

Across the state, streamflow on our rivers and streams continues to decline with streamflows generally less than 25 percent of normal streamflow conditions for the majority of the state.

At the same time, farm ponds in southeast Iowa continue to drop with many having lost half or more of their depth.

Trout streams are decreasing in flow with water temperatures rising, causing concerns about stocking of trout.

Numerous fish kills have been reported around the state, most of which were likely caused by high water temperatures, low stream flows and low dissolved oxygen levels.

With temperatures of 97 degrees recorded along the entire lower Des Moines River a little over a week ago, more than 50,000 fish died, dominated by the shovelnose sturgeon.

Iowa Great Lakes

Even though the Iowa Great Lakes remains full, anybody who has been on East Okoboji or Big Spirit Lake recently have seen the "blue-green algae" bloom that began shortly after the 4th of July. It's the same thing that happened to us a year ago.

Dock on Spirit Lake

The official name for it is cyanobacteria. Cyanobacteria are unicellular and microscopic but often form colonies that are visible to us in the water. For Mike Hawkins, DNR Fisheries Management Biologist for the Spirit Lake District, this type of mid-summer problem is becoming something of a broken record.

He describes cyanobacteria this way. "They photosynthesis sunlight like a plant, have the ability to fix their own nitrogen from the atmosphere and can even migrate in the water column to find nutrients. All of these traits allow them outcompete other algae. When weather and nutrient conditions are just right, dense blooms can occur, turning the water bright green. As the bloom drifts towards shore, the organisms die and can form thick mats of decaying matter that are bright blue to green in color and can even have an oily or 'spilled chemical' appearance."

Conditions are right:

Blue-green algae blooms are most likely to occur during hot days with little wind. They will also occur most

often in nutrient rich water, which definitely fits the description of Big Spirit. "There is a direct relationship between blue-green algae density and the levels of nutrients in the water. Runoff can really increase these levels and augment the conditions needed for a bloom."

People often say, "We need some run-off to get the lake flushed out." However, that is not the answer. The runoff, especially if it comes as surface runoff can carry with it sediments and nutrients along with other pollutants, nutrients, especially phosphorus drive the blue-green algae blooms when the conditions are right.

As mentioned earlier, cyanobacteria is found in all lakes, but blooms are much less frequent and less intense in healthy lakes. Hawkins notes, "Lakes that have healthy aquatic plant communities such as bull rushes, sedges, pond weeds, etc., tend to have very few noxious blooms."

So, what are the results of the bloom? First, there is the negative aesthetic impact. "A blue-green algae die-off is ugly, smells disgusting, and can greatly reduce recreation. It can also cause localized fish kills if there is enough dying material." Plus, there are health concerns because some species of cyanobacteria can give off toxins when they die. People and pets should avoid going in the water in parts of a lake where the decaying material is located. It's really at its worst 2-3 days after the bloom begins. That's when the die-off occurs, and you get material accumulating on the downwind side of the lake. Conditions usually improve with cooler weather, and some wind. However, the extended forecast for the rest of July is hot, dry weather. Not conducive to getting rid of the problem.

If conditions persist and water temperatures increase, the potential is there for a fish die off.

What can be done? According to Hawkins, there is no quick fix. It takes people working together and making plans to address the causes of nutrients and sediments entering the lake. It includes addressing run-off issues and implementing conservation practices that will help lessen the run-off problems.

The Dickinson County Clean Water Alliance, along with several businesses, non profit associations and lake protective associations are working to help address some of these run-off issues.

Hawkins also mentioned the work being done on shallow water lake restorations such as Diamond Lake, located west of the Iowa Great Lakes. Since completion, the aquatic plants have returned. That alone has nearly eliminated noxious blooms of cyanobacteria that used to dominate that lake.

Yes, cyanobacteria will always be around, and if conditions are right, severe outbreaks will occur. However, its impact in the future can be greatly reduced by addressing run-off issues and the influx of nutrients, restoring aquatic vegetation and developing sound conservation practices in our watersheds.

Spillway between Spirit Lake/East Okoboji at the Spirit Lake Fish Hatchery.

Thousands of fish die as Midwest streams heat up

By GRANT SCHULTE | Associated Press – Mon, Aug 6, 2012

In this July 26, 2012 photo, dead fish float in a drying pond near Rock Port, Mo., as a turkey vulture paces the shore. (AP Photo/Nati Harnik)

LINCOLN, Neb. (AP) — Thousands of fish are dying in the Midwest as the hot, dry summer dries up rivers and causes water temperatures to climb in some spots to nearly 100 degrees.

About 40,000 shovelnose sturgeon were killed in Iowa last week as water temperatures reached 97 degrees. Nebraska fishery officials said they've seen thousands of dead sturgeon, catfish, carp, and other species in the Lower Platte River, including the endangered pallid sturgeon. And biologists in Illinois said the hot weather has killed tens of thousands of large- and smallmouth bass and channel catfish and is threatening the population of the greater redhorse fish, a state-endangered species.

So many fish died in one Illinois lake that the carcasses clogged an intake screen near a power plant, lowering water levels to the point that the station had to shut down one of its generators.

"It's something I've never seen in my career, and I've been here for more than 17 years," said Mark Flammang, a fisheries biologist with the Iowa Department of Natural Resources. "I think what we're mainly dealing with here are the extremely low flows and this unparalleled heat."

The fish are victims of one of the driest and warmest summers in history. The federal U.S. Drought Monitor shows nearly two-thirds of the lower 48 states are experiencing some form of drought, and the Department of Agriculture has declared more than half of the nation's counties — nearly 1,600 in 32 states — as natural disaster areas. More than 3,000 heat records were broken over the last month.

Iowa DNR officials said the sturgeon found dead in the Des Moines River were worth nearly $10 million, a high value based in part on their highly sought eggs, which are used for caviar. The fish are valued at more than $110 a pound.

Gavin Gibbons, a spokesman for the National Fisheries Institute, said the sturgeon kills don't appear to have reduced the supply enough to hurt regional caviar suppliers.

Flammang said weekend rain improved some of Iowa's

rivers and lakes, but temperatures were rising again and straining a sturgeon population that develops health problems when water temperatures climb into the 80s.

"Those fish have been in these rivers for thousands of thousands of years, and they're accustomed to all sorts of weather conditions," he said. "But sometimes, you have conditions occur that are outside their realm of tolerance."

In Illinois, heat and lack of rain has dried up a large swath of Aux Sable Creek, the state's largest habitat for the endangered greater redhorse, a large bottom-feeding fish, said Dan Stephenson, a biologist with the Illinois Department of Natural Resources.

"We're talking hundreds of thousands (killed), maybe millions by now," Stephenson said. "If you're only talking about game fish, it's probably in the thousands. But for all fish, it's probably in the millions if you look statewide."

Stephenson said fish kills happen most summers in small private ponds and streams, but the hot weather this year has made the situation much worse.

"This year has been really, really bad — disproportionately bad, compared to our other years," he said.

Stephenson said a large number of dead fish were sucked into an intake screen near Powerton Lake in central Illinois, lowering water levels and forcing a temporary shutdown at a nearby power plant. A spokesman for Edison International, which runs the coal-fired plant, said workers shut down one of its two generators for several hours two weeks ago because of extreme heat and low water levels at the lake, which is used for cooling.

In Nebraska, a stretch of the Platte River from Kearney in the central part of the state to Columbus in the east has gone dry and killed a "significant number" of sturgeon, catfish and minnows, said fisheries program manager Daryl Bauer. Bauer said the warm, shallow water has also killed an unknown number of endangered pallid sturgeon.

"It's a lot of miles of river, and a lot of fish," Bauer said. "Most of those fish are barely identifiable. In this heat, they decay really fast."

Bauer said a single dry year usually isn't enough to hurt the fish population. But he worries dry conditions in Nebraska could continue, repeating a stretch in the mid-2000s that weakened fish populations.

Kansas also has seen declining water levels that pulled younger, smaller game fish away from the vegetation-rich shore lines and forced them to cluster, making them easier targets for predators, said fisheries chief Doug Nygren of the Department of Wildlife, Parks and Tourism.

Nygren said he expects a drop in adult walleye populations in the state's shallower, wind-swept lakes in southern Kansas. But he said other species, such as large-mouth bass, can tolerate the heat and may multiply faster without competition from walleye.

"These last two years are the hottest we've ever seen," Nygren said. "That really can play a role in changing populations, shifting it in favor of some species over others. The walleye won't benefit from these high-water temperatures, but other species that are more tolerant may take advantage of their declining population."

Geno Adams, a fisheries program administrator in South Dakota, said there have been reports of isolated fish kills in its manmade lakes on the Missouri River and others in the eastern part of the state. But it's unclear how much of a role the heat played in the deaths.

One large batch of carp at Lewis and Clark Lake in the state's southeast corner had lesions, a sign they were suffering from a bacterial infection. Adams said the fish are more prone to sickness with low water levels and extreme heat. But he added that other fish habitat have seen a record number this year thanks to the 2011 floods.

"When we're in a drought, there's a struggle for water and it's going in all different directions," Adams said. "Keeping it in the reservoir for recreational fisheries is not at the top of the priority list."

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 and 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.