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IOWA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

LATERAL LINES

SEPTEMBER 11, 2014

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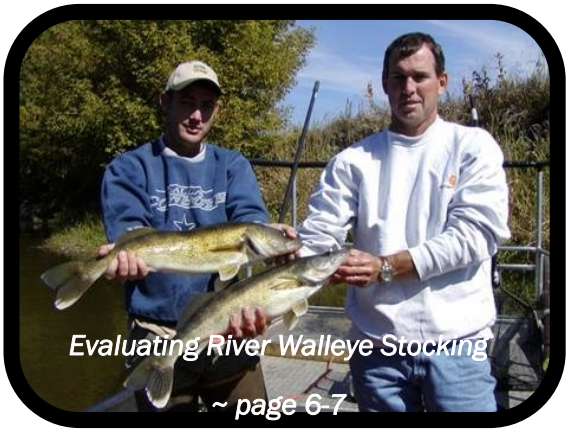
President elect: Lewis Bruce

Secretary/Treasurer: Dan Rosauer



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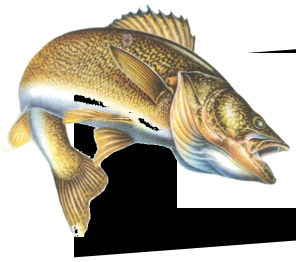

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AMERICAN FISHERIES SOCIETY

IOWA AFS CHAPTER
American Fisheries Society

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.

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President's Corner

Ben Wallace

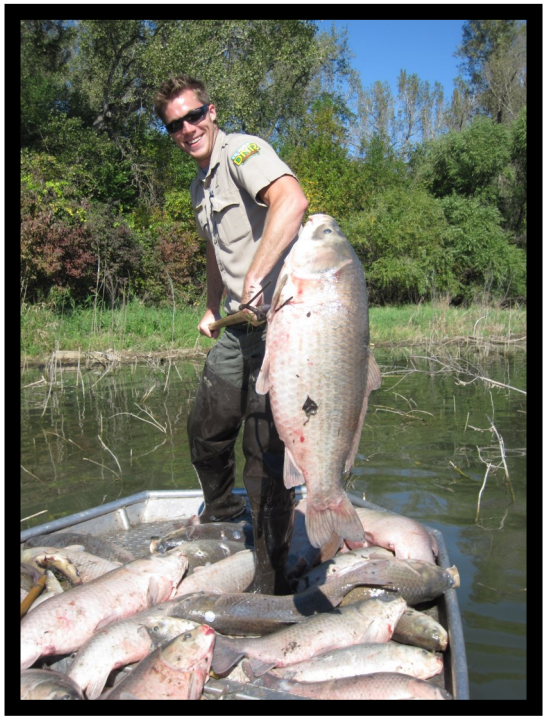
Fellow AFS Members,

My term as chapter president is pretty much over and I wanted to take this opportunity to reflect and offer some thanks to the members of the Iowa AFS. It takes a lot of people to keep an organization active and running. Each year the Iowa Chapter holds an annual meeting, puts on a continuing education course, represents the chapter at other AFS meetings, funds travel awards and scholarships, and supports other conservation groups and causes related to the natural resources. All of these things take time and dedicated members. Kim Bogenschutz is the outgoing past-president and her help throughout the last year has been greatly appreciated. The Ex-Com relied heavily on Kim for advice and past experience. Clay Pierce and Jeff Kopaska put together a great continuing education course for the membership. Two GIS experts from the University of Missouri, Jodi Whittier and Nick Sievert, taught a two day GIS course designed specifically for fisheries professionals. The course was well attended, and speaking from personal experience, proved to be a great learning opportunity. Our annual meeting this past year was held jointly with the Nebraska Chapter. There was great attendance and a wealth of information shared between the two chapters. That was my first time planning a large meeting and I appreciated all the help that Dan Rosauer provided. One of the goals of our chapter is to support policy that benefits the natural resources, and we do that in several ways. Our chapter makes annual contributions to groups like the Iowa Conservation Alliance and the Iowa Environmental Council. This year our chapter signed on to a letter of support requesting that conservation practices be a key component in the latest farm bill. Our chapter also helped draft and send letters to various policy makers stating the importance of establishing and restoring habitat in the Missouri River corridor. All of these activities are important, but they don't happen without the attendance, cooperation, and support of all of you.

I would like to welcome Lewis Bruce as our newest officer to the Iowa Chapter. Lewis was recently elected to the position of president-elect and I know he'll do a great job in the coming years. Lewis works for the Iowa DNR Fisheries Bureau in the research section out of Cold Springs. D. Allen Pattillo will be serving as president this year and I encourage anyone who is interested in helping or serving the AFS in any way to contact him. Dan Rosauer is staying on as secretary-treasurer, and I'm sure past officers will vouch for how important this job is. Dan handles all of the finances and day to day dealings with the Chapter and it's a great benefit to the chapter to keep him on.

In closing, I would like to thank the entire membership for the opportunity to serve the Iowa Chapter. I learned a lot in the past year and I'm sure that I will continue to learn as I serve in my new capacity as past -president.

~ Ben



2014 IOWA AFS PRESIDENT-ELECT: LEWIS BRUCE

Lewis Bruce attended South Dakota State University in Brookings, SD where he received a B.S. degree in Fish and Wildlife Science. During his Junior and Senior years he worked with the South Dakota Game Fish and Parks entering historic age and growth data into databases. He also had the privilege of spending two summers working with Jerry Hudson and Chris Larson, the greatest fish management team in the state. After graduating from the infamously prestigious South Dakota State University he perused a seasonal position in fisheries research working with the Greg and Greg Show located in Manchester Iowa. During his time in this position he worked on two projects; Radio telemetry looking at seasonal movements of gamefish in two rivers located in Northeast Iowa, the second was stream and river fish community and habitat assessment throughout Iowa. In 2003 he was hired as the small impoundment research technician located in Southwest Iowa where he is currently employed. During the past 10 years he has been a member of the state and national AFS chapters. He is also the Centrarchid Techincal Committee Representative of Iowa for the NCD. CTC chairman and treasurer are a few of the positions he has held within AFS.

2014 IOWA AFS TREASURER: DAN ROSAUER (2ND TERM)

Dan received a B.S. degree in Animal Ecology with a fisheries and aquatic sciences option in 2006. His four years at ISU were spent maintaining a fathead minnow colony for immunity studies and gaining various fisheries experiences in the summers. Dan was a charter member of the ISU student subunit of the Iowa Chapter of AFS and the secretary-treasurer in 2005-6. In 2006, Dan left Iowa to pursue a master's degree at the University of Wisconsin-Milwaukee. His thesis work involved the establishment of genetically defined yellow perch brood stocks. During this time, Dan also worked on the reproductive biology of lean and siscowet strains of lake trout in the field, as well as strain differentiation in a laboratory setting. After graduating in 2008 he continued as a research associate, working with yellow perch, lake trout and black pacu. Dan joined the Iowa DNR in 2010 as a Technician at the Rathbun Hatchery. His primary responsibilities are rearing walleyes from fry to fingerlings in lined ponds (phase I) and feed training walleyes (phase II). He has initiated a zebra mussel monitoring program within the hatchery to test the hatchery HACCP plan as well as monitor zebra mussel veliger densities entering the hatchery. Dan is excited for the opportunity to become more involved in AFS.

ONCE-EXTIRPATED FISH SPECIES BELIEVED DISCOVERED IN MISSISSIPPI RIVER

~ IOWA OUTDOORS

DES MOINES—State and national scientists are working to identify a fish found in the Mississippi River recently that, if proven to be what it is thought, would be the first time in more than 80 years the species has been confirmed in Iowa.

Iowa DNR fisheries staff collecting fish for a fishing clinic in early July captured what is believed by state and national authorities to be a longear sunfish.

"If this proves to be a longear sunfish it will be the first time since 1932 the species has been positively identified in Iowa," said DNR fisheries technician Adam Thiese, who collected the fish. "How it got here and where it came from remains to be determined. For those that work in the fisheries field, both state and nationally, anytime an uncommon species can be documented, it's an exciting discovery."

Leading national ichthyologists believe it is a longear sunfish. A fin clip has been collected to verify. Once listed as common in bayous around Muscatine, they have been extirpated from the state for more than eight decades.

The fish is being held alive by the DNR until it can be positively identified.

For more information, contact Adam Thiese at 563-263-5062 or 563-260-4791. To request a photo, contact Kevin Baskins at Kevin.baskins@dnr.iowa.gov, or Julie Sparks at Julie.sparks@dnr.iowa.gov.

Update (Adam Thiese): Iowa DNR have collected 4 Longear Sunfish around the hatchery this summer. The first Longear was collected in a fyke net on the flooded hatchery grounds while trying to collect fish for a clinic. The lower ponds at the hatchery were flooded due to the high water and when the hatchery staff were finally able to drain them they found two more. Pictures of the new specimens were sent to Robert Hrabik with the Missouri Dept. of Conservation and Bruce Bauer in Tennessee. They confirmed that the specimens are Longear Sunfish. The fourth specimen was collected by Jake Sieverding (hatchery seasonal employee) in a fyke net set out along the hatchery grounds in the Mississippi River.

The fish are most likely Central Longear Sunfish and not Northern Longear Sunfish which will hopefully be determined by the DNA analysis. Iowa DNR is still waiting on the results on the DNA analysis and this may take some time.

All four specimens have had a fin clip taken from them for DNA analysis and sent to Bruce Bauer. The fourth specimen died and has been preserved and is being sent to Bruce Bauer for him to use in his study of geographic variation of meristics and morphometric of Longear Sunfish. Bruce is working with a Dr. Tom Near at Yale who is working on the DNA analysis of longear and dollar sunfishes. Bruce Bauer is a Research Associate, Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN.

EVALUATING IOWA'S INTERIOR RIVER FINGERLING WALLEYE STOCKING STRATEGIES

~ GREG GELWICKS, FISHERIES RESEARCH, IOWA DNR

Walleye fingerling stocking has greatly increased Iowa's interior river walleye populations over the last 20 years. This has resulted in an increasingly popular fishery that has brought walleye fishing opportunities close to home for many Iowa anglers. The success of this program has also increased demand for two inch long, Mississippi River strain walleye fingerlings. Limited hatchery capacity has made it difficult to consistently produce enough fingerlings of size and genetic strain requested for program. Providing information needed to more efficiently utilize our limited hatchery production capacity, and exploring the potential of alternative fish culture systems in meeting the demands of the river walleye program is the focus of a new study.

Genetic strain of walleye fingerlings stocked in Iowa's interior rivers can impact survival and recruitment. A previous study found that Mississippi River strain walleye fingerlings stocked in the Cedar and Wapsipinicon Rivers had significantly higher survival than Spirit Lake strain fingerlings. Spirit Lake strain fingerlings continue to be stocked in interior rivers in some regions in Iowa. In recent years, managers in these regions have increasingly requested Mississippi River strain fingerlings due to survival advantages documented in the Cedar and Shell Rock rivers. These rivers are located in the Iowan Surface landform region of Iowa. Determining whether stocking Mississippi River strain fingerlings could benefit walleye populations in rivers located in other landform regions of Iowa is needed to help guide decision making.

Fairport Hatchery is the primary source of Mississippi River strain walleye fingerlings stocked in Iowa's interior rivers. Due to increased demand and numerous difficulties at this aging facility, production of walleye fingerling of the quantity and size requested has not been achieved during several recent years. Fingerling walleyes stocked during the 1990's averaged 880 fish/lb. Fish averaging as small as 3,200 fish/lb. have been stocked in recent years. It is not known whether these smaller fingerlings make the same contribution to interior river walleye populations as the larger fingerlings that were evaluated during the 1990's. Improved methods for producing walleye fingerlings in plastic lined ponds at Rathbun Hatchery have raised additional questions about the appropriate size for fingerlings stocked in interior rivers. The number and size of fingerlings produced in plastic lined ponds can be adjusted by varying fry stocking rates. Higher stocking rates produce higher numbers of smaller fingerlings, and lower stocking rates produce lower numbers of larger fingerlings. A better understanding of the role of fingerling size in survival and growth could help optimize production and make the most of limited production capacity.

Year to year variability in river conditions emphasizes the need for consistent production of walleye fingerlings for stocking interior rivers. Previous studies found that high summer discharges negatively impacted survival of stocked fingerling walleyes. Since managers cannot know in advance what river conditions will be like after stocking, it is unavoidable that stocking will be unsuccessful during some years. If, in addition, sufficient walleye fingerlings are unavailable during years when conditions are favorable, opportunities to produce strong year classes are missed. Therefore, interior river walleye populations may not reach their full potential if adequate numbers of walleye fingerlings of sufficient size and appropriate genetic strain are not available on a yearly basis.

Available pond culture space has been a limiting factor for producing Mississippi River strain fingerling walleye to

stock in interior rivers. Recent research at the Rathbun Fish Culture Research Facility has shown promising results raising Mississippi River strain walleye fingerlings using an alternative method, intensive fry culture. Intensively reared walleye fry are stocked into recirculating tanks and trained on formulated feed from day 1 post-hatch, instead of stocking them into ponds where they feed on zooplankton. One advantage of the intensive culture method is increased flexibility in stocking date compared to pond culture. This would allow stocking to be delayed if river discharge was not conducive to survival of stocked fingerlings. It is unknown how growth and survival of intensively reared Mississippi River strain walleye fingerlings would compare to extensively reared fingerlings in Iowa's interior rivers. Evaluating the relative contribution of intensively reared fingerlings to interior river walleye fisheries will determine whether this production method could help further improve river walleye populations.

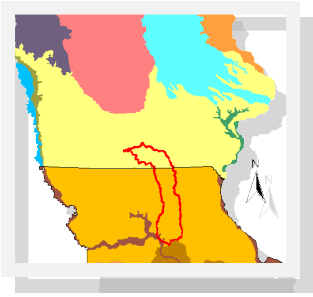
Improvements to extensive culture methods in plastic lined ponds at Rathbun Hatchery provide a unique opportunity. These improvements have led to consistent production of two inch long walleye fingerlings. Although sufficient pond space is not available to produce enough fish for all interior river walleye stockings, they could provide a consistent source of high quality fingerlings for side-by-side comparisons with other hatchery products to assess their relative contributions to interior river walleye populations. Our study will compare growth and survival of extensively cultured Mississippi River strain walleye fingerlings from Rathbun Hatchery with Spirit Lake stain fingerlings, smaller Mississippi River strain fingerlings, and intensively cultured Mississippi River strain fingerlings. This will provide information to inform decision making for the production and stocking of walleye fingerlings that will provide the greatest benefits for sustaining and improving walleye fisheries in these rivers.

RATHBUN RESERVOIR: A MAN-MADE SOLUTION TO A MAN-MADE PROBLEM?

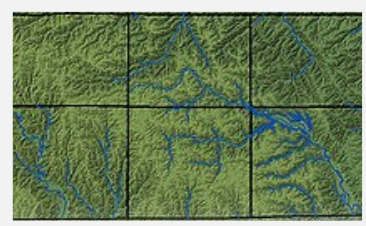
~ MARK RICHARDSON, FISHERIES RESEARCH, IOWA DNR

Rathbun Reservoir has had a prominent place in my fisheries career for over 30 years now, which has included research on fish in the reservoir and the watershed that feeds the reservoir. Close contact with the resource has fueled my curiosity about the origins of the reservoir and at times has led to a little digging for more information about why the "Rathbun Multi-purpose Reservoir" was built. In the 1980s, I did some searching in the archives of The *Chariton Leader* and the *Chariton Herald-Patriot* newspapers for information about the Chariton River and Lake Rathbun. There were a few small articles that fed my curiosity, but none of them really got to the heart of my interests or questions. In the years since, more information has been referenced and catalogued, making the quest easier. Although much basic research of primary sources remains to be done, especially for the state of Iowa, here follows some reasonably verifiable information.

Lake Rathbun is located on the Chariton River, which the United States Army Corps of Engineers list as 185 miles long and having a drainage area of 2,390 square miles (USACE, 1980). The river basin includes parts of Clarke, Decatur, Wayne, Lucas, Monroe, and Appanoose counties in Iowa, and Putnam, Schuyler, Adair, Macon, Randolph, Howard, and Chariton counties in Missouri.



Historically, the river meandered through the valley with wetlands and river valley forests. Original inhabitants of the Chariton River valley were members of the Fox, Sac, Illinois, Missouri, and Iowa tribes. They had little impact on the river or its riparian system, making use of the resources they found there in abundance. Observations by early European migrants (circa 1820s) support the idea that fish and game were plentiful, along with forests covering about 70% of the area (MDOC, 2001). The river was known to flood the low-laying areas of the valley several times a year, and residences and farms were established on the hills overlooking the river and out of the reach of flood waters. By the 1850s, the Chariton River valley was well populated, and county governments and towns were being established. The population of the area continued to grow, and beginning in the 1870s expansion of the railroads and coal industry to southern Iowa and northern Missouri started to bring change to the landscape. This was especially noticeable in the harvest of timber for rail ties and mine shaft shoring. By the 1920s, the majority of virgin timber had been cut, opening the ground for other uses, primarily grazing but also some grain and other crops. The topography and soils of the region tend toward severe erosion and are less than ideal for cropping. Agriculture and grazing remain the highest land uses in the Chariton River valley today.



Interest in "improving" the Chariton River may have begun with first European immigrants, who desired to make the river valley more useful to agriculture and less prone to flooding. The first major efforts probably started around 1900 with the formation of the Macon and Chariton County Drainage Districts in Missouri. Apparently work started in Macon County, but soon commenced in Chariton County "because residents of Chariton County did not wish to be flooded downstream of Macon County's new 'ditch'" (L. &C. Dunham, Missouri DOC, 2001). Other projects funded by local landowners were ongoing in Adair County Missouri from 1912 - 1935 (MDOC, 2001). Not to be outdone, the county engineer of Wayne County, Iowa proposed, surveyed, and executed a plan to shorten the "South Fork of the Chariton River" so that "this stream will have the kinks taken out of it and much overflow land will be reclaimed". The goal was to shorten the stream by 90 miles within the boundaries of Wayne County, and the project was completed by the late 1920s (*Chariton Herald Patriot*, Jan. 18, 1921).

Records of what happened on the main stem of the Chariton River in Iowa have been elusive, but the evidence is plain; straight steep-sided channels pass through river bottom ground that has cut off remnants of river bends. The wetlands formed by the channelization of the river now are disconnected from the river, and "perched" well above the depth of the new river bed. Only rainwater runoff and high water events put water into these wetlands and water is only retained in those that are not tiled for drainage. The federal government also felt the need to channelize parts of the Chariton River, and from 1948 – 1952, they straightened about 35 miles of the river in Missouri. In the years 1965 – 1972, the United States Army Corps of Engineers installed a levee system which separated the Chariton River from its former tributary, the Little Chariton River (MDOC, 2001).

The last channelization of the upper reaches of the Chariton River in Iowa probably occurred in Lucas County, Iowa in the mid-1970s. It is interesting to note that this was privately done in violation of federal law, thus putting the U.S Army Corps of Engineers on the "other side of the dredge" in this case. This resulted in the forfeiture of the riparian property to Lucas County as part of the settlement.

The Missouri Department of Conservation, using U.S.G.S. 1:24,000 scale maps estimates that 47% of the main stem of the Chariton River has been channelized, which is probably conservative. Most of the improvements were completed by the end of the 1930s, which may have been a good thing since many resources were about to be consumed by World War II (September 1939-September 1945). Residents of the Chariton River valley may not have been that all-fired impressed by the results of all this "improvement", considering that the historical records show floods occurred on the Chariton River in 1892, 1903, 1909, 1928, 1939, 1944, 1945, 1946, and 1947. The flood of 1947 was the fifth largest flood event on the Chariton River during the period of 1947 to 1995 - a fair attention grabber. U.S.A.C.E estimates of flood damage that year were the highest yet recorded in the Chariton River basin at a cost of 2.4 million dollars in 1947 (Iowa Natural Resources Council, 1958, p. 48), or 73.4 billion dollars 2014 value. While that would not be the last flood, steps were being taken, and in 1954 the construction of Rathbun Dam and Reservoir was authorized by the Flood Control Act of 1954. There would be several more floods before construction started and the dam was finally completed and operational in November of 1969. Multi-purpose pool level (904msl) was reached on October 10, 1970, and formal dedication of the project was on July 31, 1971, with President Richard Nixon as the keynote speaker (U.S.A.C.E.).

I am still looking for the newspaper editorial, or meeting minutes that actually say "we have had it with the floods, some-one do something...". I know it's out there, and I would be interested to see just what the trigger was, as if three straight years of flood capped by a record flood weren't enough to motivate action. The gain seems to be protection of 750,000 acres of marginal agricultural ground. The damage done to this river system by channelization has been massive, and the destruction of half of the original riparian ecosystem has led to large losses of resources for fish, wildlife and people of the area (MDOC, 2001). The addition of the Rathbun Dam and

Reservoir has offset the losses to a degree, but I would not expect much agreement by stakeholders and other interested persons on just how much. Meanwhile the reservoir provides safe drinking water (16 thousand customers, 4.37 million gallons/day, RRWA, 2001) in rural Iowa and Missouri, water for fish culture, recreation in various forms, and a measure of flood protection for those downstream.

I would like to acknowledge the following sources for providing the majority of information for this article:

Watershed Inventory and Assessment/ Chariton River, Missouri Dept. of Conservation, Cashatt & Neuswanger 2001

Chariton Herald-Patriot, Archives and personal contact, 1985-2010

Some Physical, Chemical and Biological Characteristics of the Chariton River Prior to the Impoundment of Rathbun Reservoir, Iowa Conservation Commission, Mayhew, James K. 1969

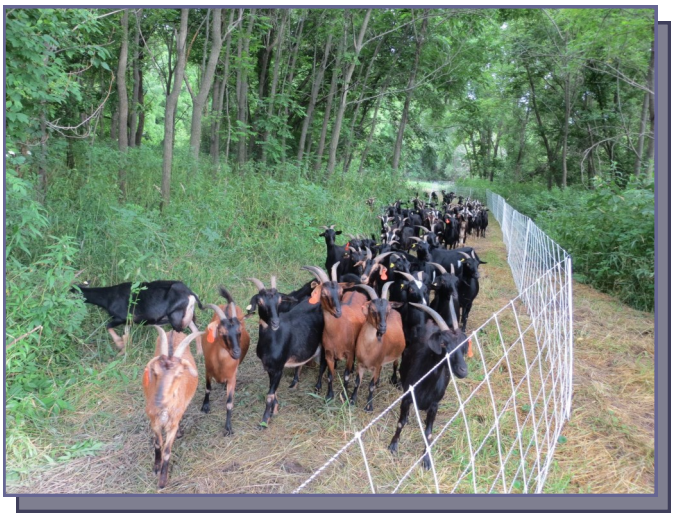
Rathbun Rural Water Association, Web Page, 2014

Wayne County Engineer's Office, Personal contact, 1996

United States Army Corps of Engineers, Personal contacts and various web pages, 1982-2014

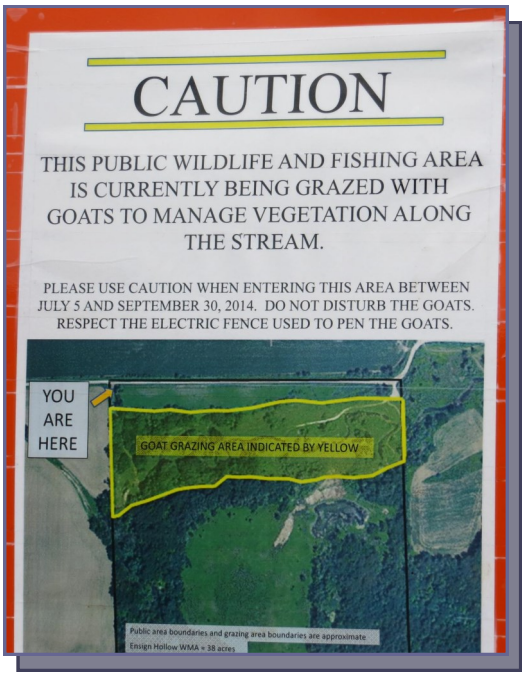
GRAZING GOATS

~IOWA OUTDOORS ~ JOE WILKINSON



No doubt about it; 60 grazing goats make a huge dent in an overgrown creek corridor. Two weeks after being turned loose in Ensign Hollow state wildlife area, they have chewed their way through over three acres of giant ragweed, stinging nettles, wild parsnip, poison ivy and just about anything else a land manager does NOT want to see.

It's opening the eyes of public and private landowners.



"How could a landowner NOT like this? It has too many positives!" queried Eric Boehm, who owns land near Bear Creek, another Clayton County trout stream. Boehm and other landowners, USDA workers and DNR biologists recently checked the progress of the goat experiment.

The results are impressive. On one side of a temporary electric fence, nettles, ragweed and other thick vegetation stood head-high. On the goats' side, it looked like a heavily grazed farm timber. Larger trees had not been on the menu, and much of the grass had been ignored. In between, though, the undesirable woody vegetation—willow shoots, box elder, buckthorn—was pretty well chewed on…and just stems remained of broadleaf stands; particularly nettles and ragweed.

"You really don't want to walk through all that stuff," said DNR fisheries supervisor Mike Steuck; who led the informal tour. "We are trying to open up this area, so folks who want to fish, hunt, trap, bird watch or hike can get through more effectively."

The area is best known among trout anglers. Rolling through with 60 degree water on this 85 degree summer afternoon, Hewitt Creek is a catch and release, artificial lure only stream. It's a little out of the way, but that isolation—and 18-inch trout which show up on stream sur-

veys—make it attractive to dedicated anglers. IF they can get to it.

Pine Hill Farms owns the goats, two guard donkeys and the electric fence that keeps them inside. The agreement includes a 'second helping' later this season, to keep the vegetation knocked back. The DNR is paying $2,000 for the trial project. Steuck says that compares pretty well to the cost of bringing in equipment and a crew for a few days.

The goats were moved across the stream after a week or so, to chomp their way through the other side of the seven acre wildlife area. They watched the tour quietly from a wooded area. Occasionally one would walk out—with a mouthful of green—to look things over.

Though still early, the Ensign Hollow experiment suggests a lot of options.

"This could be another tool in our tool box; to keep areas in prairie, versus having succession go to woody vegetation and trees that we cannot actively manage without a lot of manpower," offers Steuck. "We might use them in areas with hard access; steep banks, rocky shorelines. Goats are sure-footed and can climb up and down that stuff. People can't."

Several 'goat for hire' companies have arisen across Wisconsin and Iowa. The recurring question Tuesday was, 'how much will it cost, with more goats available?'

MUSSEL BLITZ

~IOWA OUTDOORS ~ JOE WILKINSON

From the adjacent sandbar, the scene looks like a diving school gone awry. Two shallow divers are connected to oxygen lines. A couple others have masks. Another four wade through the shallower sections. Every couple minutes, someone hoists another mussel; adding to the inventory.

"You are looking for coarser gravel, but not big cobblestones," explains Vance Polton, DNR fisheries technician. He is standing knee deep in the Iowa River, below Iowa City; returning a 'Wabash pig toe' to the sandy bottom.

"They have to push through the substrate where they are located," says Polton. Onshore, small piles of live mussels are inventoried, measured for growth; and then returned to the water.

Iowa's mussel dilemma is mirrored throughout North America. A dozen of 54 known Iowa species are gone. At least half of the remaining species are endangered or threatened. That wakeup call is what brings up to 50 biologists, students and volunteers for a week of wading and groping often muddy Iowa stream bottoms for elk toes, three-ridge, pocketbooks and fat muckets. If nothing else, freshwater clams have great names!

This summer, the target river was the Iowa; above and below Iowa City. Historically, it has been a good 'mussel' river.

"Fish and mussels have 'co-evolved.' They somewhat depend on each other," underscores Scott Gritters, DNR fisheries biologist and annual ringmaster of Iowa's 'Mussel Blitz.' "The more mussel species; the better the mussel density; the better our fish populations; the better our water quality."

The results this year?

"It's one of those 'glass half full, glass half empty,' scenarios," assesses Gritters. His long term concern is that populations cannot handle the cycle of highs and lows of past years.

"We really scoured some areas. We found 1,500 mussels; 20 species. We found some decent populations, but I had hoped for 3,000 or so. Mussels don't react well to that."

Dan Kelner, a mussel expert with the Army Corps of Engineers, shows off a pair of large mussels, a monkey face (left) and a pistol grip, found earlier this month on the Iowa River. Researchers will be conducting their annual mussel survey this week on the Iowa River from Coralville to Hills. DNR photo by Scott Gritters

On the upside, the 2014 Mussel Blitz turned up another six Higgins' eye pearly mussels; thought nearly extinct 40 years ago. Any Higgins' eyes in the Iowa River were stocked there. Raised in hatcheries; they were inoculated as glochidia--larvae--into the gills of fish, stocked several years ago. No larger than grains of salt then, they hung onto their host for several weeks… before dropping off; hopefully into a hospitable gravel bed.

Higgins' eye found 2014

To have the nearly microscopic mussels show up now, as adults?

“It’s a pretty big deal,” applauds Gritters. “It is a way to reintroduce mussels into our rivers by stocking fish. We stock a lot of fish for our anglers and this way we can ‘double dip’, so to speak.”

With floods, excess nutrients and sediment covering mussel habitat; even extreme cold affecting these inland mollusks, a few glimmers appear from year to year.

“People will like our rivers a lot more, if they can support mussels,” says Gritters.

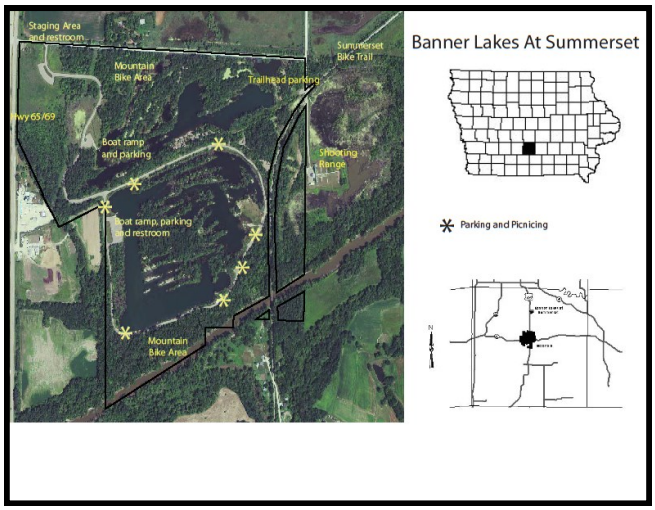
MEDIA CONTACT: Joe Wilkinson, Iowa Department of Natural Resources, 319-430-0325.

REAP KEY TO CREATING BANNER LAKES AT SUMMERSET STATE PARK

~IOWA OUTDOORS

REAP funding has made possible Iowa's newest state Park. Nestled in the rolling landscape between Des Moines and Indianola, Banner Lakes at Summerset State Park opened in 2004. Serving as a midway point for the 13-mile Summerset Trail, it has quickly become a favored recreational destination.

Only the second Iowa state park established in the last 27 years, Banner Lakes at Summerset State Park provides fishing, boating, hiking, mountain biking, picnicking, target shooting and hunting. Couple that with a stellar location and most would agree: Banner Lakes is a great addition to Iowa's state park system.



Once the scene for Iowa's largest strip-mining coal operation in the 1930's, the Banner Pits (named after the Banner Coal Company) became a public hunting area in 1954. Responding to changing recreational demands, REAP funding has set up new and enhanced recreational opportunities — introducing Summerset State Park as a welcome diversion from the trappings of urban civilization.

"Banner Lakes is a popular area for as small as it is, due to its proximity to Des Moines," said Iowa State Park Bureau District Supervisor Jim Lawson.

As one of central Iowa's few stocked trout fisheries from October through May, South Banner Lake provides anglers plenty of possibilities. Trout up to 10 pounds are stocked annually.

Banner Lakes also provides occasion for excellent boating and shoreline fishing. The Iowa Trail's Crew constructed a new cantilevered fishing pier with REAP funding. The original handicap-accessible pier has also been renovated, and rocking provides additional shoreline fishing access along the main

boat ramp. All motor sizes are allowed on the lake, at no-wake speeds. Other species in both lakes include channel catfish, largemouth bass, bluegill, and crappie.

Fire grills and picnic tables make up numerous shoreline picnic locations on the large lake and adjacent to the main parking area. Restrooms are available at the entrance, concession and boat ramp at the large lake. Banner Lakes' two-mile paved multi-use trail loop connects to the Summerset Trail, while an additional five miles of hard-packed single-track mountain biking trails offer added fun.

"REAP serves as an important source of funding for us and allows our projects to take place. Much of the work we do wouldn't get done without that funding source; it's extremely important to all the facilities we have," Lawson said.

Before its transformation into a recreational area, the wildlife area was too rugged for family use. Shooting up washing machines and microwaves was the primary "recreational activity." Rock tailings were used for bullet backdrops — causing ricochets to zing every which way. The dumping got so bad that wildlife management personnel would have to use dump trucks to haul out shot-up trash every month.

Now shooting is done in the safe, controlled environment of the adjacent Banner shooting range, which provides updated range facilities including sheltered shooting benches and a hard surface parking lot. Banner range also adjoins Middle River Wildlife Area, which provides outstanding public hunting opportunities on 1,000 acres.

"REAP has really turned Banner Lakes around into a useful piece of property for us; a lot of people enjoy it," Lawson said.

In its 25 years, REAP has benefited every county in Iowa by supporting 14,535 projects. REAP has funded these projects with $264 million in state investments, leveraging two to three times that amount in private, local and federal dollars. Collectively, these projects have improved the quality of life for all Iowans with better soil and water quality, added outdoor recreation opportunities, sustained economic development, enhanced knowledge and understanding of our ecological and environmental assets, and preservation of our cultural and historic treasures.

INTENSIVE RESTORATION PROJECT UNDERWAY AT LAKE MIAMI

~IOWA OUTDOORS ~ MICK KLEMSRUD

ALBIA - Lake Miami is in the middle of a complete lake restoration that will bring better fishing, improved lake access and water quality to the 137-acre lake north of Albia.

The Iowa Department of Natural Resources began the project in October 2013 when it renovated and re-stocked the fish population to eliminate a common carp problem and an overall fish population stuck in neutral. Then in May it added a barrier to the lake outlet designed to prevent carp from reentering the lake.

Early results show excellent fish growth with catchable sized largemouth bass and channel catfish already available.

Mark Flammang, fisheries biologist for the DNR, said the next set of improvements will be installed this winter.

"We will improve 10,000 feet of shoreline, add two fishing jetties and fish habitat starting in January," Flammang said. "Then in the spring, four ponds and two dry basins will be built in the watershed on public land to reduce gully erosion."

Additional plans down the road include timber stand improvements to improve forest quality on public land, and working with private landowners to reduce impacts of watershed land use on lake water quality.

The lake restoration project is an investment in excess of $1 million that is designed to last for decades.

"This is an excellent project that will benefit the county park and surrounding communities through increased visitation and spending by those visitors in area businesses," Flammang said.

The project is being funded by a grant from the State's Watershed Improvement Review Board to the Monroe County Conservation Board, the Iowa DNR's Lake Restoration Program and the DNR's Fisheries Bureau.

IN THE NEWS

ScienceDaily®

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EATING BAKED, BROILED FISH WEEKLY BOOSTS BRAIN HEALTH, STUDY SAYS

August 4, 2014

Source: University of Pittsburgh Schools of the Health Sciences

Eating baked or broiled fish once a week is good for the brain, regardless of how much omega-3 fatty acid it contains, according to researchers at the University of Pittsburgh School of Medicine. The findings, published online recently in the *American Journal of Preventive Medicine*, add to growing evidence that lifestyle factors contribute to brain health later in life.

Scientists estimate that more than 80 million people will have dementia by 2040, which could become a substantial burden to families and drive up health care costs, noted senior investigator James T. Becker, Ph.D., professor of psychiatry, Pitt School of Medicine. Some studies have predicted that lifestyle changes such as a reduction in rates of physical inactivity, smoking and obesity could lead to fewer cases of Alzheimer's disease and other conditions of cognitive impairment in the elderly. The anti-oxidant effect of omega-3 fatty acids, which are found in high amounts in fish, seeds and nuts, and certain oils, also have been associated with improved health, particularly brain health.

"Our study shows that people who ate a diet that included baked or broiled, but not fried, fish have larger brain volumes in regions associated with memory and cognition," Dr. Becker said. "We did not find a relationship between omega-3 levels and these brain changes, which surprised us a little. It led us to conclude that we were tapping into a more general set of lifestyle factors that were affecting brain health of which diet is just one part."

Lead investigator Cyrus Raji, M.D., Ph.D., who now is in radiology residency training at UCLA, and the research team analyzed data from 260 people who provided information on their dietary intake, had high-resolution brain MRI scans, and were cognitively normal at two time points during their participation in the Cardiovascular Health Study (CHS), a 10-year multicenter effort that began in 1989 to identify risk factors for heart disease in people over 65.

"The subset of CHS participants answered questionnaires about their eating habits, such as how much fish did they eat and how was it prepared," Dr. Raji said. "Baked or broiled fish contains higher levels of omega-3s than fried fish because the fatty acids are destroyed in the high heat of frying, so we took that into consideration when we examined their brain scans."

People who ate baked or broiled fish at least once a week had greater grey matter brain volumes in areas of the brain responsible for memory (4.3 percent) and cognition (14 percent) and were more likely to have a college education than those who didn't eat fish regularly, the researchers found. But no association was found between the brain differences and blood levels of omega-3s.

"This suggests that lifestyle factors, in this case eating fish, rather than biological factors contribute to structural changes in the brain," Dr. Becker noted. "A confluence of lifestyle factors likely are responsible for better brain health, and this reserve might prevent or delay cognitive problems that can develop later in life."

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.