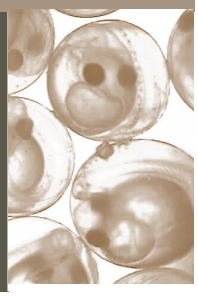
Volume 32, Issue: 3 December 15, 2014

in this issue >>>

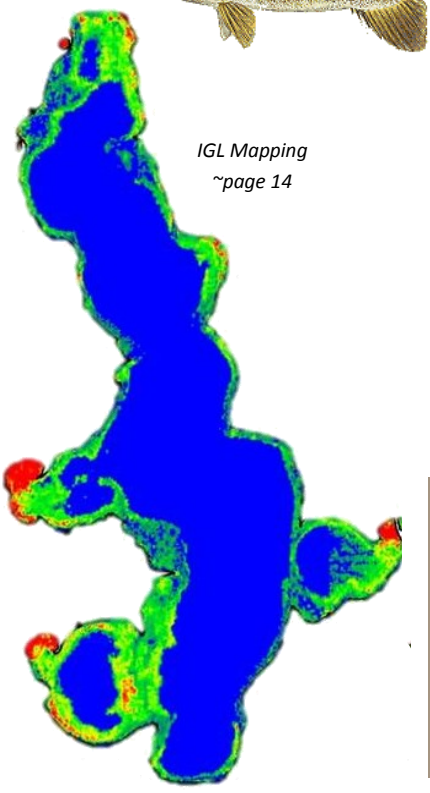
Iowa Chapter of the American Fisheries Society

Lateral Lines



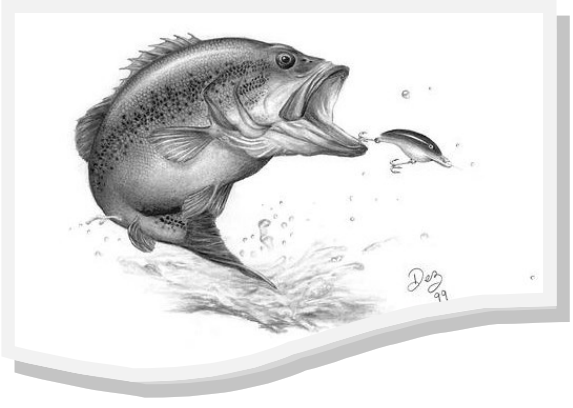
current topics >>>

Maynard Reece Fish Illustrations
~page6



IGL Mapping
~page 14

Old-Time Metal Fish Traps
~page18



Iowa Outdoors

Visit Iowa AFS on the web:

http://www.fisheriessociety.org/iowa/index.html

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Our Mission:

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

D. Allen Pattillo

Hello all, and greetings from Iowa State University! Please allow me to express my gratitude for allowing me to serve as your chapter president. Additionally, I would like to thank Ben Wallace for his past and continuing work on the executive committee, as well as Dan Rosauer and Lewis Bruce for helping to make this a smooth transition. The Iowa Chapter of the American Fisheries Society annual meeting will be held at the Hilton Garden Inn in Ames, Iowa on March 12th & 13th, 2015. This Thursday & Friday noon to noon meeting will include the annual business meeting, social, dinner, auction, and presentations of the current research and management being done in Iowa. We are looking forward to the Ames meeting and I expect many of you ISU graduates are as well. Please mark your calendars accordingly, and plan to submit an abstract to present!

Since this is my first official communication, I'd like to introduce myself and my background, which is a bit different than the majority of the folks in the Iowa chapter of the AFS. I am from the Southeastern United States near Atlanta, GA, where the majority of fisheries issues have to do with urbanization. Urbanization and agriculture affect streams similarly through erosion, sedimentation, flashy hydrology, and chemical effluent. As the Fisheries and Aquaculture Extension Specialist at Iowa State University (since 2011) I've dealt with issues in pond and aquatic vegetation management from land owners; however, the focus of my program has been aquaculture. My research focus is in aquaponics, a closed-loop sustainable agriculture system.

Many of you are aware of the recent expansion of recirculating aquaculture in Iowa in the private sector. We have new producers using the opposing flows technology to raise Barramundi (*Lates calcarifer*) in renovated livestock confinement units and in newly constructed buildings. Some farmers are choosing to utilize the hyper-intensive biofloc production method to grow Pacific White Shrimp (*Litopenaeus vannamei*) indoors as well. Other farmers are using aquaponics technology to combine both fish production and plant production. Most of these farmers are raising Nile Tilapia (*Oreochromis niloticus*) and a variety of leafy greens, herbs, vegetables, and even flowers.

This new diversity in Iowa's agriculture scene is very encouraging considering the recent push for local foods and agricultural sustainability. However, this ramping up in the industry brings new regulatory challenges on all sides from exotic species importation to effluent management. It will be interesting to see how this story unfolds as Iowa becomes a leader in yet another agricultural arena.

We are looking forward to another successful meeting, and a productive year for fisheries. See you at the Iowa AFS meeting in Ames!

2015 Iowa Chapter AFS Annual Meeting

March 12 - 13, 2015

Ames, Iowa

Natural resource professionals and students in Iowa will meet to share new research, management experiences, and valuable insight on fisheries issues. Come connect with other experts, meet students, and expand your knowledge of fisheries management and research.

Registration:

Professionals/Grad Students: $75

After 2/13/2015: $100

Day of meeting: $150

Undergraduate Students/AmeriCorps: $35

Includes dinner and social on the 12th.

Pre-Register by February 13th, 2015

Send notification to: pattillo@iastate.edu
Payment accepted at the door.

Lodging

Hilton Garden Inn
1325 Dickinson Ave
Ames, IA 50014
(515)233-8000

Room Rates:

$109/night for double queen

35 rooms blocked off, reserve early

Reserve under 'Iowa AFS'

****reserve by February 11, 2015****

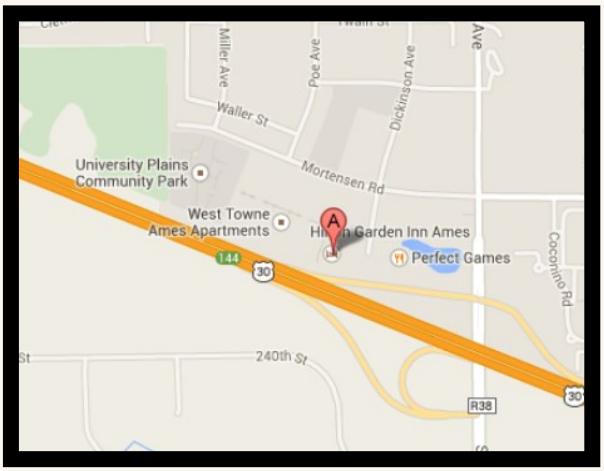
Tentative Schedule:

Thursday, March 12

12-1 PM	**Registration**
1-2 PM	**Welcome and Plenary Speaker: Dr. Robert Summerfelt**
2-4 PM	**Presentations**
4 PM	**Business Meeting**
5:30 PM	**Social**
6:30 PM	**Dinner**
7:30 PM	**Auction and Raffle**

Friday, March 13

8 AM-noon	**Presentations**



2015 Iowa Chapter AFS Annual Meeting

March 12 - 13, 2015

Ames, Iowa

CALL FOR PAPERS

Please submit abstract along with following information:

- professional or student presentation
- oral or poster presentation

** abstract is limited to 350 words

Abstract Deadline: January 23, 2015 @ 5 PM.

Submit to: pattillo@iastate.edu

Preservation of Maynard Reece Illustrations

Jeff Kopaska, Fish Research ~ Iowa DNR

Recently, the Iowa Chapter of the American Fisheries Society awarded a Fisheries Project Grant for the restoration of the original Maynard Reece fish prints housed at the Rathbun Fish Hatchery. The grant award will be used in conjunction with a $20,000 grant from the Iowa Department of Cultural Affairs, Historical Resource Development Program award.

Federal Duck Stamp 1959

Federal Duck Stamp 1969

Maynard Reece is one of Iowa's preeminent artists, on a level below only Grant Wood, and on par with Ding Darling, Marvin Cone, Andrew Clemens and Christian Petersen. He began his career as a graphic artist with the Meredith Corporation in Des Moines at the age of 18 in 1938. At that time, he began meeting with and became the protégé of Ding Darling. In 1940, he took a position with the State Historical Museum and by 1942 had painted the color plates for the book *Waterfowl in Iowa*. Following his World War II service, Reece returned to the State Historical Museum in 1946, and undertook the work of illustrating the color plates for *Iowa Fish and Fishing*. His work concluded sometime between the printing of the second edition in 1951 and the third edition in 1956, which included all of the paintings. His efforts resulted in 18 separate paintings, comprising 63 different fish species. These 18 original paintings are the property of the Fisheries Bureau of the Iowa Department of Natural Resources, and have been on display at the Rathbun Hatchery since it opened in the 1970s.

The work illustrating these two books for the Iowa Conservation Commission resulted in Maynard being invited to submit a design for the 1948-49 Federal Duck Stamp competition. This was his first experience in the competition, and he won. He would go on to win a record five Federal Duck Stamp competitions – a mark unrivaled and unlikely to ever be exceeded. His success in these competitions led to him being dubbed "The King" of duck stamps. Reece was commissioned to create the first Iowa State Duck Stamp in 1972, and won the 1977 and 1993 Iowa duck stamp competitions. He has also won state stamp competitions in Arkansas, Idaho, Illinois, Missouri, Texas and Washington.

Reece gained fame for his artwork portraying birds and his biography as a Legend of the Outdoor Writers Association of America christened him the

"artist with the feather touch."

Iowa Trout Stamp 1982

His work exhibits a commitment to detail of the animal, its habitat and behavior. As an example, every bird has the right number of feathers on the wing, correctly shaped and colored. The results of his meticulous nature and artistic talent include prestigious awards such as being named the Ducks Unlimited Artist of the Year in 1973; the Master Wildlife Artist of Leigh Yawkey Woodson Art Museum, International Birds in Art show since 1989; and a Distinguished American Artist by American Artist magazine.

Reece's attention to detail transcends species. His fish paintings have the correct number of scales on the lateral line and the correct number of spines and rays on the fins. His initial work on "Iowa Fish and Fishing" led Life magazine to commission him to paint a portfolio of freshwater fish in 1955, and a subsequent portfolio of saltwater species in 1957. In 1961, he provided the artwork for a story in the Saturday Evening Post called "A Seven-Pound Trout." Utilizing these experiences, Reece wrote, illustrated, and provided photographs for the book Fish and Fishing, which was published by Meredith in 1963. In addition to all his fame as a bird artist, he was the preeminent fish artist of his time.

Maynard Reece is a supremely skilled artist and he enhanced that skill with the research necessary to capture the essence of the subject

matter. Hours in a duck blind. Miles of walking, shotgun in hand, through marshes and prairies. Hundreds of thousands of casts. Photographs. Live and preserved specimens. Experiences and mental pictures earned through a lifetime spent in the field. These are the stripes of honor earned from a commitment to his craft and to conservation. His artwork graced the header of the Iowa Conservationist magazine for decades. By 1963 Reece was named Chair of the Governor's Committee on the Conservation of Outdoor Resources. Since then, he has provided numerous works of art to conservation organizations for use in fundraising. He has always been a supporter of the Iowa Natural Heritage Foundation; in recent years he painted an eastern goldfinch (Iowa State Bird) and wild rose (Iowa State Flower), and committed 25 percent of the print sales to the Foundation. His commitment to conservation resulted in the Foundation naming a restored wetland area for him, the Maynard Reece Marsh in Kossuth County, which is now managed by the Iowa DNR.

The act of conserving things that are important brings us back to the fish prints. Many years ago, Iowa fish culture supervisor Mike Mason mentioned that the fish prints in the interpretive area at the Rathbun Hatchery were the Maynard Reece originals. At the time, I thought that was cool, but didn't think much more of it. Last fall while viewing an art show, entitled "In Pursuit of Wildlife Conservation: The Art of Jay N. Darling and Maynard Reece" at Iowa State University's Brunnier Museum the importance of what we had at Rathbun dawned on me. It turns out that it is nearly a miracle that these prints are even around today.

Jeff,

I was a biologist at Clear Lake when the Rathbun Hatchery was being built. I called Ken Formanek who worked in I&E back then. Ken lives in Pleasant Hill and has a listed Des Moines land line. Ken remembers doing an inventory back in the late 60's of things at the Fairgrounds and found two big boxes filled with Maynard Reece originals! They had sat there for years. They were simply framed with no matting at the time of discovery.

Contact was made with Maynard Reece and he suggested using The Art Store for reframing and matting. A guy at the store had done work for Maynard…. The originals were matted and framed in what Formanek says is archival condition sometime around 1970-72. They were placed on display in the interpretive area at Rathbun Hatchery and have remained there. Ken believes the folks doing the conservation work will find they are generally in very good condition save for exposure to light over the years.

It's good this preservation work is being done. There is a better place for the originals and prints will work just fine at the hatchery.

Marion

Over the next year, the original paintings will be sent to art conservator to treat and restore the paintings. After that work is completed, we will create digital images, archive the originals at the State Historical Museum, and produce prints for continued display at Rathbun. The new, high resolution digital images will allow us to create new prints in the future as needed, and will allow us to use these images on the web site, in publications, and on educational materials for the foreseeable future, all of which greatly enhance their utility to the DNR. Furthermore, by restoring and preserving these irreplaceable pieces, and archiving them at the State Historical Museum, they will be available to future generations of Iowans to enjoy.

Thank you to the Iowa Chapter of AFS for assisting in this project.

Maynard Reece Honors:

National Fish and Wildlife Foundation stamp – 1988

Ducks Unlimited Artist of the Year – 1973

Distinguished American Artist by American Artist magazine

Master Wildlife Artist, Leigh Yawkey Woodson Art Museum, International Birds in Art show – 1989

Commissioned to create the first Iowa Duck Stamp, 1972

Commissioned to create the first Missouri Turkey Stamp, 1983.

Sources:

In Pursuit of Wildlife Conservation: The Art of Jay N. Darling and Maynard Reece, 2013. A pamphlet created to accompany the art show at Iowa State University's Brunnier Museum.

Maynard has artwork in the holdings of the National Museum of Wildlife Art
http://www.wildlifeart.org/collection/artists/artist-maynard-reece-449/

Maynard Reece Gallery
http://www.maynardreecegallery.com/AboutUs.htm

Wikipedia site
http://en.wikipedia.org/wiki/Maynard_Reece

Des Moines Register listing of famous Iowans
http://data.desmoinesregister.com/famous-iowans/maynard-reece

Outdoor Writers Association of America - Legends
http://owaa.org/owaa-legends/maynard-reece-artist-with-a-feather-touch/

Maynard Reece Stamp Prints

STAMP PRINTS

1972 Iowa Duck Stamp Print – Mallards
1977 Iowa Duck Stamp Print – Lesser Scaups
1981 Iowa Habitat Stamp Print - Bobwhites
1982 Iowa Trout Stamp – Rainbow Trout
1982 Arkansas Duck Stamp – Wood Duck
1982 Bass Research Foundation – Largemouth Bass
1983 Texas Duck Stamp Print – Wigeon
1983 Ruffed Grouse Society – Ruffed Grouse
1983 Missouri Turkey Stamp Print
1984 Chesapeake Bay – Canada Geese
1984 International Quail Foundation – Bobwhite Quail
1985 Ducks Unlimited – Mallards
1985 Arkansas Turkey Stamp Print
1988 National Fish & Wildlife – Mallards
1988 Arkansas Duck Stamp Print – Pintails
1989 Washington Duck Stamp Print – American Wigeon
1989 Iowa Ducks Unlimited Sponsor Print – Canada Geese
1992 Quail Unlimited Stamp – Bobwhite Quail
1993 Iowa Duck Stamp Print – Mallards
1997 Illinois Habitat Stamp Print – Ring-necked Pheasants
1998 Illinois Habitat Stamp Print – Doves
1998 Idaho Duck Stamp Print – Canada Geese
1999 Illinois Habitat Stamp Print – Turkeys
2000 Illinois Habitat Stamp Print – Whitetail Deer
2000 Quail Unlimited Dove Conservation Stamp Print – Doves
2013 Arkansas Duck Stamp - Mallards

FEDERAL DUCK STAMP

Federal Duck Stamp Print – Bufflehead
Federal Duck Stamp Print – Gadwalls
Federal Duck Stamp Print – Labrador Retriever
Federal Duck Stamp Print – White-winged Scoters
Federal Duck Stamp Print – Cinnamon Teal

Iowa Conservationist Header artwork

Iowa State Subunit News

Nic Rhinehart ~ ISU subunit president

Dray Carl ~ ISU subunit treasurer

Kassidy Stitz

Hello again from Ames, Iowa. The Iowa State student subunit has been very active this semester with recreational and educational activities alike. We have held events that incorporate members and nonmembers of the AFS student subunit to help inform the Iowa State community of the goals of our chapter. We began the semester by having a fish fry at a park near the South Skunk River near Ames. During this event we also fished and seined for smallmouth bass in hopes of recapturing some tagged fish for an ongoing population dynamics project by Dr. Michael Weber and his Fishery Management class. One of our main extracurricular events was taking a trip down to Lock and Dam 19 near Keokuk, Iowa to try out our luck snagging Asian carp. We also used this as an opportunity to educate members on identification and ecology of one of Iowa's newest aquatic invasive species. The trip was successful and everybody ended up catching some carp! Additionally, a couple of our members ventured over to Calhoun County to assist the USFWS and Aleshia Kenney with a current project on Topeka shiners. We seined recently restored oxbow lakes and the catch was promising yielding many young-of-year Topekas along with a few adults. Our members thought this was an exciting and educational trip and were grateful for the opportunity.

In addition to our recreational activities, we also held numerous educational events. Graduate student members Carlos Camacho and Chris Sullivan gave the club a formal presentation on their graduate projects concerning Asian carp population dynamics and reproductive strategies in Southeast Iowa rivers. Also, graduate student members Mike Sundberg and Ryan Baldwin held an aquatic macroinvertebrate workshop for our members and shared with us basic invertebrate sampling and identification techniques. Our club also reached out to the Ames community and held a fly-tying instructional session where members aided participants in tying an Adams fly, which they brought home to put in their own tackle boxes.

Upcoming events include resume and job application workshops, habitat improvement at Lake Ada Hayden, and tours of the Berkley outlet store and Spirit Lake Fish Hatchery. The club will also be in attendance of the Iowa AFS state meeting in January to help support fisheries in Iowa. We will be fundraising and selling AFS t-shirts and beanies; keep an eye out for us! We appreciate all the outreach from the Iowa DNR and other fisheries professionals, and encourage anybody who needs volunteers this spring to contact us through Michael Weber at mjw@iastate.edu.

Using Cloud-based Lake Mapping and Point Vegetation Surveys to Document the Impact of Zebra Mussels in the Iowa Great Lakes

Jonathan Meerbeek and Kim Hawkins, Natural Lakes Research ~ Iowa DNR

The Iowa Great Lakes is an interconnected chain of diverse and complex lakes that encompasses approximately 11,500 acres in Northwest Iowa. In September of 2012, a single live juvenile zebra mussel *Dreissena polymorha* was discovered on a zebra mussel plate sampler in Upper Gar Lake. Inspections of boat hoists and docks that fall by DNR officials revealed three additional juvenile zebra mussels. Although no zebra mussels were detected on plate samplers in 2013, boat hoist and dock inspections that fall documented both juvenile and adult specimens in several of the interconnected lakes, confirming the presence of a reproducing population. All indications point to the fact that we are at the forefront of a substantial zebra mussel infestation.

Zebra mussels are known as ecosystem engineers because of their intense filtering behavior can modify the physical environment by increasing light penetration, thus likely influencing the distribution and diversity of submersed macrophytes. Since macrophytes are a well-suited indicator of ecological health due to their immobility and ease of sampling and/or identification, it is important that surveys are conducted to monitor potential impacts of aquatic invasive species. Recent advances in GPS and sonar technology coupled with cloud-based software have substantially expanded the ability for fisheries managers to conduct lake-based bathymetric and habitat (i.e., macrophyte density and distribution, substrate composition) evaluations with limited time and/or cost investment. ciBiobase by Contour Innovations is a web-based company that provides simple and affordable lake mapping GIS automation software to analyze and compare critical lake metrics over time.

In 2014, we purchased a 12-month unlimited lake subscription for the Iowa Great Lakes from ciBIobase so that mapping files could be uploaded, post-processed, viewed, and exported in a web-based interface. Lake mapping was conducted with a Lowrance HDS unit in July and August and files were uploaded to the site for data checking and interpolation. In addition, physical estimates of aquatic macrophyte density and diversity were collected using the point intercept sampling method in each lake. Average aquatic plant biovolume (percent of water column taken up by vegetation) ranged from 8.5% in Spirit Lake to 17.6% in West Okoboji Lake.

Distinct vegetation beds in shallow bays and deeper weedlines were well represented using 35m-60m transect spacing and the Lowrance unit (Figure 1). In the entire chain of lakes we sampled 2,060 vegetation points and identified 18 species ranging in abundance from <1% of the rake coverage to well over 100% (i.e., mats of vegetation).

We plan to repeat this study in 2015 and periodically after that so macrophyte-based IBI's (maximum depth of plant growth, 95% occurrence, percentage of littoral zone vegetated, number of species with frequency over 10%, relative frequency of submersed species, relative frequency of sensitive species, relative frequency of tolerant species, and number of native taxa) can be calculated and tracked over time to document changes in the ecological health of the Iowa Great Lakes.

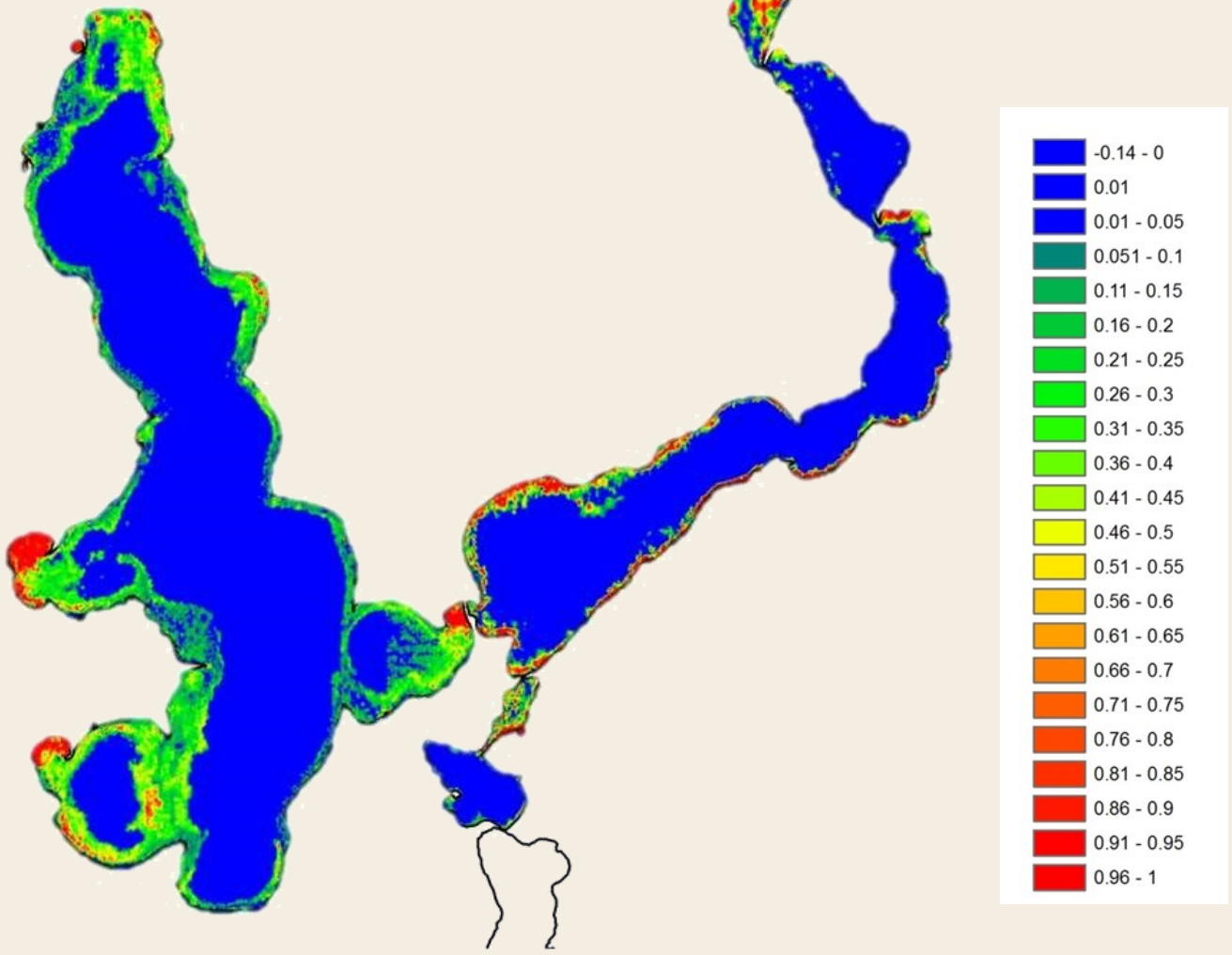
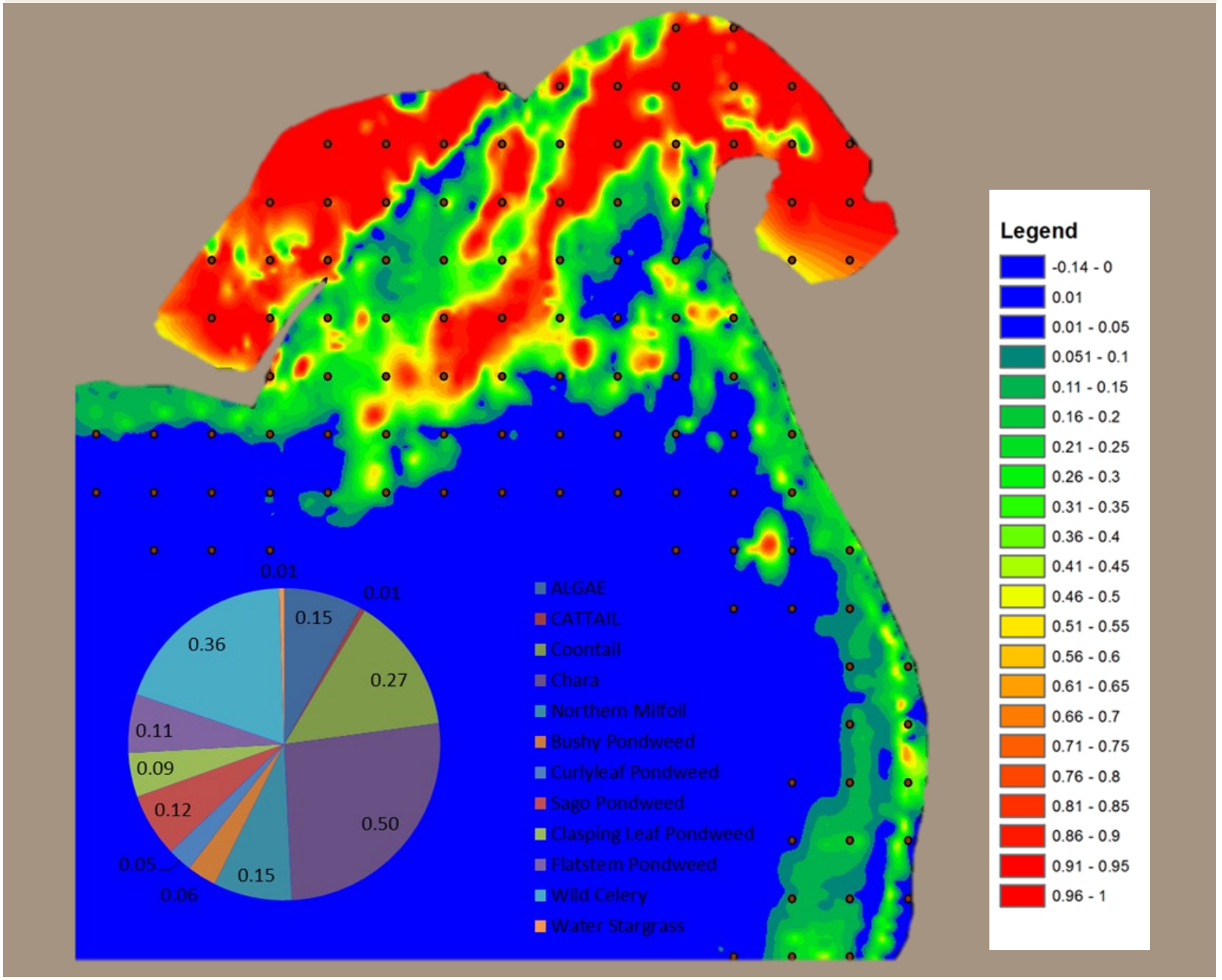


Figure 1. Estimated submergent aquatic vegetation biovolume in the Iowa Great Lakes via sonar mapping, summer 2014.

Cost and Time Involvement: The license fee and sonar equipment cost less than $4,000 (graciously covered by Lakeside Laboratory and Friends of Lakeside Laboratory). Time taken to map the lakes at transect spacing ranging from 35m to 100m was 163 hr, or about 70 acres mapped per hr. The vegetation point survey at point spacing's of 80-150m required 184 hr. Including time to design the study, review data files, and enter vegetation data, our team accumulated 531 hr on this project.

Other Benefits from Project: Although the initial goal of the project was to document the impact of zebra mussels on the aquatic macrophytes, the data also benefits recreational users and a variety of other conservation issues. The depth and habitat maps will be available to anglers for either downloading onto their units or as hard copy maps. In addition, these data are now available on a social map network provided by Insight Genesis which is viewable for free worldwide. Those that have a paid subscription to Insight Genesis will be able upload any shared maps on this network. Others will be able to obtain these new maps by visiting the Iowa DNR webpage or by viewing the map(s) on their mobile device via the ArcGIS app. The mapping project and point intercept survey has also been used to exemplify the importance of wild celery beds to migrating diving ducks in Angler's Bay (Spirit Lake) to acquire federal funds to purchase adjacent wetlands (Figure 2).



Some Pros and Cons of web-based mapping: Pros – inexpensive, easy to set up and train employees, user friendly interface, quickly produce and share maps, capture both depth and habitat data all at once, repeatable methodology, export to ArcMap functionality, multiple users can collect data, easily calculate water volume in areas where managers may need to apply chemical.

Cons – Some data checking necessary due to inability for transducer to "punch" through thick mats of vegetation or poor depth readings that the algorithm does not remove, time consuming (depending on objectives), necessary to "recreate" depth contours and substrate/ vegetation grid maps in ArcMap (e.g., cannot export depth contour shapefiles for immediate use in ArcMap, rather exported as a grid or point layer and interpolation must be used in ArcMap to make depth contour shapefiles).

For more information, visit http://www.cibiobase.com/

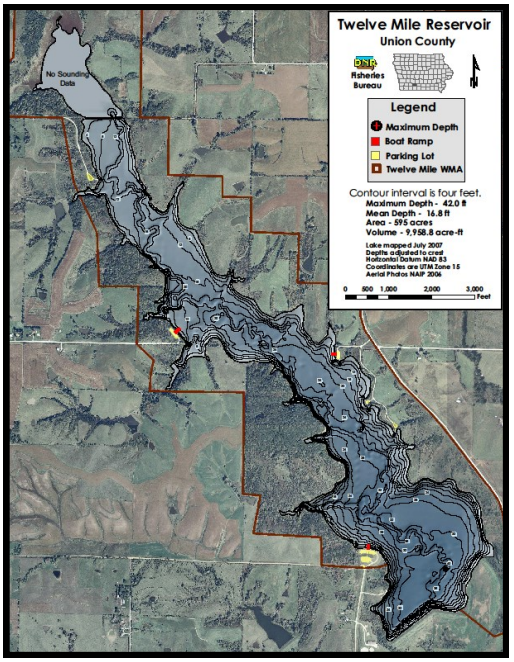
Impacts of Stocking Pre-Spawn Adult Largemouth Bass in Two Renovated Impoundments on Bass Abundance and Bluegill Size

Dray Walter and Bryan Hayes, Fish Management ~ Iowa DNR

Fishery renovation is an important and useful tool in fisheries management. It allows managers to restructure fish populations and develop a more desirable fishery. More than a dozen Southwest Iowa impoundments have gone through complete fishery renovations over the last 10 years to restore desirable fish populations for anglers. Whether driven by undesirable fish infestations and/or poor water quality, the restoration time to develop desirable fisheries after renovation has been variable and sometimes frustrating for fisheries managers.

Iowa fisheries managers' historical post-renovation stocking policy for largemouth bass (LMB) *Micropterus salmoides* in renovated Iowa impoundments consists of stocking two consecutive years of 2" LMB fingerlings at 70/acre in June and occasionally an additional fall stocking of 5" LMB fingerlings at 5/acre. This is similar to Small Impoundment Management in North America (Neal and Willis 2012) where they describe a split stocking strategy typically used in southern and mid-latitude impoundments consisting of stocking fingerling bluegills (BLG) *Lepomis macrochirus* in the fall prior to stocking fingerling LMB in the spring. The goals of this strategy are to produce a high abundance/reproducing LMB population and 8" BLG within 3 years or less. Many post-renovation projects in Southwest Iowa impoundments that have used this stocking regime have produced variable recovery times and abundances of fish populations after a fishery renovation. For example, Lake Anita took 5 years post-renovation before managers surveyed an 8" BLG, and Viking Lake took 7 years post-renovation. Furthermore, LMB electrofishing surveys catch-per-unit-effort (CPUE, an index to LMB relative abundance) ranged between 38/hour and 69/hour 2 years post-renovation in both of these impoundments. These timeframes for BLG to reach 8" and less than desirable LMB abundances that developed from the historical stocking strategy in renovated impoundments led to the need for a new LMB stocking strategy for new and renovated impoundments in Iowa.

Willis et al. (2010) sometimes reversed the stocking process of LMB fingerlings and BLG in northern latitudes where LMB fingerlings are stocked 1-2 years prior to stocking BLG to reduce the chances of impoundments becoming overcrowded with BLG. Following 2005 renovation of Twelve Mile Creek Lake, post-spawn adult (>12") LMB were stocked at 0.5/acre in addition to 2" and 5" LMB fingerlings to see if a higher LMB CPUE from adult natural reproduction could be attained to reduce the time it takes BLG to reach 8". The LMB electrofishing CPUE in Twelve Mile Creek Lake two consecutive years following renovation were 230/hour and



528/hour, respectively. In addition, some BLG from the fall fyke net survey two years post-renovation approached 8". It is believed that this would not have occurred without the high abundance of LMB from the inclusion of adult LMB in the stocking strategy. Clugston (1964) reported that northern LMB did not reach sexual maturity even after 16 months in study ponds. Therefore, it appears the increase Twelve Mile Creek Lake LMB two years post-renovation CPUE could be attributed to the natural reproduction from the adult LMB stocking. It also appears that the early development of an extremely high abundance LMB population was beneficial to the early and quick development of a quality panfish fishery. Guy and Willis (1990) found a positive correlation between LMB CPUE and BLG PSD (r = 0.72, P = 0.02)

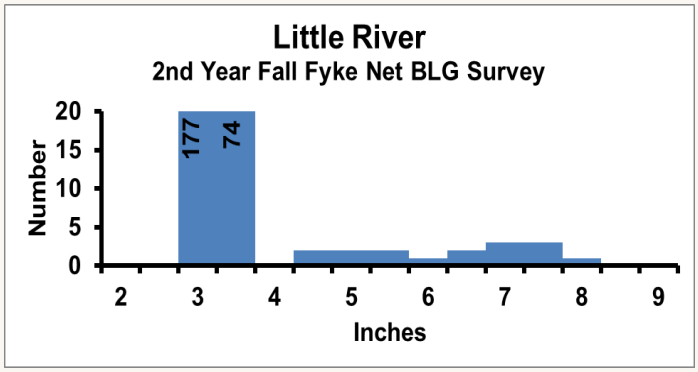
in South Dakota ponds. Tomcko and Pierce (2005) found density-dependent growth effects for adult BLG in Minnesota lakes, and Santucci and Wahl (2003) suggested that predation is an important mechanism regulating the recruitment success of young BLG.

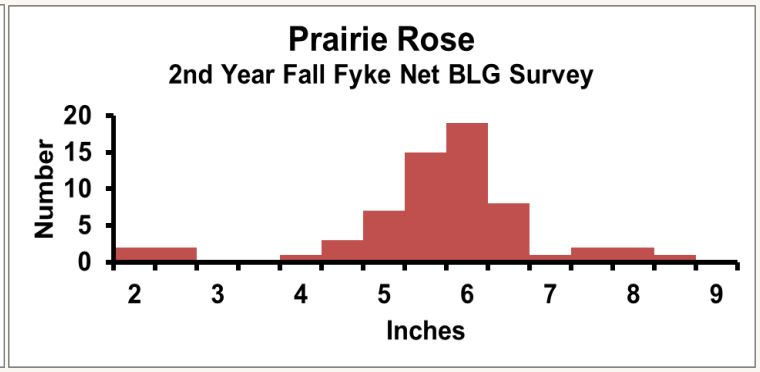
A new study was developed to determine if LMB abundance could be increased one year post-renovation from the results from the Twelve Mile Creek Lake study. The new post-renovation stocking strategy that was developed utilized pre-spawn adult LMB at the rate of 1/acre in addition to the traditional stocking of 2" LMB fingerlings at 70/acre in June and a fall stocking of 5" LMB fingerlings at 5/acre. This new stocking strategy was utilized in two renovated impoundments to determine: 1) if a high LMB abundance (similar to Twelve Mile Creek two year post-renovation LMB CPUE) from natural reproduction could be established within the first year following impoundment renovation and 2) if the time frame to produce 8" BLG could be shortened following impoundment renovation.

The two renovated impoundments used in this study were Little River (743 acre) and Prairie Rose (195 acres). Little River, renovated in the fall of 2011, was stocked with 750 pre-spawn adult LMB in the spring of 2012. Prairie Rose, renovated in the fall of 2012, was stocked with 256 pre-spawn adult LMB in the spring of 2013. In both impoundments, the June 2" LMB fingerlings were marked with oxytetracycline (OTC), and the fall 5" LMB fingerlings were fin clipped prior to stocking to determine source of Age-0 LMB. Near-shore seining was used to determine if there was naturally produced LMB prior to the June 2" LMB stocking.

LMB reproduction was documented in Little River and Prairie Rose by seining prior to June 2" LMB fingerling stockings. Fall electrofishing CPUE for LMB after the first year for Little River and Prairie Rose were 1078/hour and 430/hour, respectively. In both impoundments, subsamples of Age-0 LMB were collected in the fall one year post-renovation from LMB surveys. The subsamples consisted of 50 Age-0 LMB from Little River and 38 Age-0 LMB from Prairie Rose. No OTC marks were observed from any LMB in the subsamples. In addition, no fin clipped LMB were recovered from either impoundment. Therefore, these high catch rates were attributed to natural reproduction from stocked adult LMB in both impoundments.

Maximum lengths of BLG sampled in Little River and Prairie Rose after the second year in fall fyke nets exceeded 8.0". In addition, numerous BLG over 6" were also sampled in these fall fyke nets (Figures 1 and 2).





Figures 1 and 2. Length of BLG sampled in Little River and Prairie Rose.

Stocking pre-spawn adult LMB in Little River and Prairie Rose produced a high abundance of LMB in the first year when compared to Lake Anita and Viking Lake that used the traditional stocking strategy. The quick development of a high LMB abundance appeared to have improved BLG growth. BLG attained larger sizes within two years in these impoundments when compared to Lake Anita and Viking Lake that did not include adult LMB in the stocking strategy. In both Little River and Prairie Rose, BLG achieved 8" by the end of the second growing season which has taken up to 7 years in impoundments that did not include adult LMB in the stocking strategy.

Complete fishery renovations will always be an important and useful tool for fisheries managers. Shortening the recovery time of the fisheries is a huge benefit to fisheries managers and the angling public. The results of this study demonstrate the benefit of using adult pre-spawn LMB in post-renovation stocking. Several other recently renovated Iowa impoundments and natural lakes that used the pre-spawn adult LMB stocking strategy have produced similar results to Little River and Prairie Rose. However, further research is needed on stocking densities, their interactions, and if adult LMB stocking is a better alternative to stocking LMB fingerlings.

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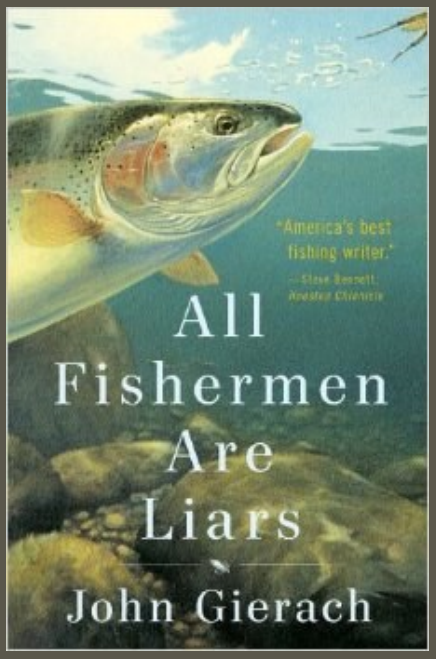
All Fishermen Are Liars

By John Gierach

~ reviewed by Jim Wahl

If you're looking for a good Christmas gift for the fisherman in your life, I would highly recommend All Fishermen Are Liars by John Gierach. Amazon Best Sellers ranks it number one in Hunting and Fishing Humor.

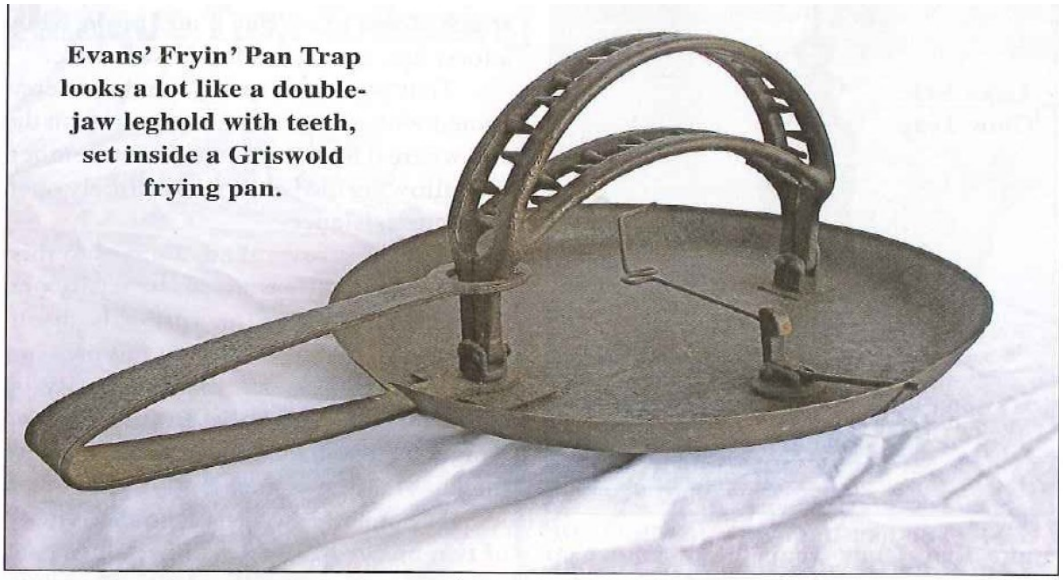


I recently received a copy from my brother and couldn't put it down. It is a very easy read and is full of humor that will keep you laughing throughout.

Gierach travels across North America from the Pacific Northwest to the Canadian Maritimes to seek out his fishing experiences. The book consists of over twenty chapters that stand alone covering fishing topics such as: art of fly tying and the quest to tie the perfect steelhead fly; fishing smallies in Wisconsin streams; importance of traveling with like-minded companions when caught in a soaking downpour; and much, much more.

Gierach lives in Colorado and is an avid fly fisherman so most of the stories revolve around his passion of fly fishing. This is a must read for any fly fisherman, but even if you're not, don't let it scare you off. His humor makes every chapter a clever collection of his thoughts and experiences in an outdoor setting.

Jim Wahl
Iowa DNR NW Regional Fisheries Supervisor
Fly fisherman wannabe



Evans' Fryin' Pan Trap looks a lot like a double-jaw leghold with teeth, set inside a Griswold frying pan.

A Magazine for Practical Outdoorsmen
FUR-FISH-GAME
Harding's Magazine
January 2015 Issue

Old-Time Metal Fish Traps

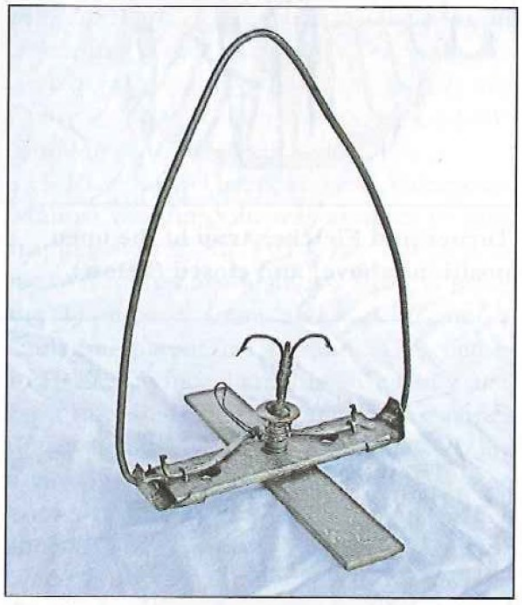
"Whoever made this trap, it wasn't their first time to a rodeo."

By William Blauser

Prior to World War II, metal fish traps were still in vogue, and anyone skilled in the art might take a shot at improving a design or perhaps come up with a unique trap of his own design. The clear and exact descriptions given in the patent papers for the factory traps could certainly help. Regardless, it is safe to say that the makers of the six fish traps described here, some known and some not, all qualify as "skilled in the art."

At least three of these traps were patented, and the others could have been because of the unique designs. But if so, the letters of patent have not been found.

With the advent of regulations that limited which fish could be kept, the use of spring-loaded hooks and killer fish traps was restricted and finally outlawed altogether in U.S. waters. Yet the old traps have become valuable collector items, and the six that follow are favorites of mine, prized additions to a collection that has been 25 years in the making.



Thousand Island Fish Trap was found in New York along the St. Lawrence River. Nothing of its history is known.

Evans' Fryin' Pan Trap was patented by John Evans, Bridgeport, Connecticut, in 1899. It looks like a leghold trap set inside an old Griswold frying pan. The pan measures just under a foot across, enough room for the 5.5-inch jaws to rest inside the flared edge when set.

It has a very strong longspring and cast iron jaws with teeth. The trap was designed, as stated by Evans in the patent papers, to be baited and "thrown overboard and sink to the bottom and rest on the latter without turning upside down (due to the) metallic pan having flared edges."

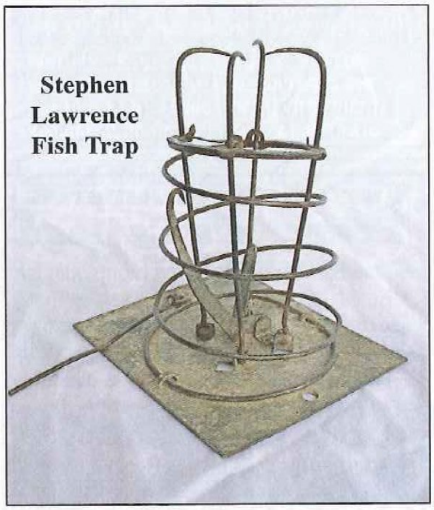
Thousand Island Fish Trap is not known to have been patented, but conceivably still could be, due to the unique design. The trap was found in upstate New York along the St. Lawrence River, and since nothing else is known of its history, I refer to it as the Thousand Island Fish Trap.

This trap also is designed to be lowered to the bottom, where it sits upright due to the solid lead cross pieces that form its base, one 5 and the other 7 inches long.

The 9-inch handle rotates down and lays flat when the trap is set on the bottom, out of the way of two spring-activated fishhooks, which also lay flat when set.

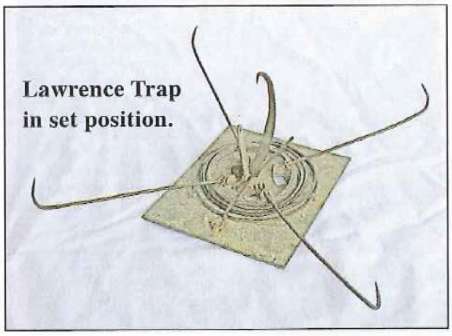
Stephen Lawrence Fish Trap was patented by Stephen A. Lawrence of Okmulgee, Oklahoma, in 1925. It stands 5.5 inches tall and has a 5-inch square steel base plate. *PAT 4 21 25* (the patent date) is stamped in one corner of the plate and 20 in another, which is thought to be a serial number.

The driving force of this "fish catcher," as described in the patent, is a tapered coilspring which when compressed collapses so as to lay flat against the base. This allows four inwardly facing barbless hooks to rotate outward and lie horizontal.

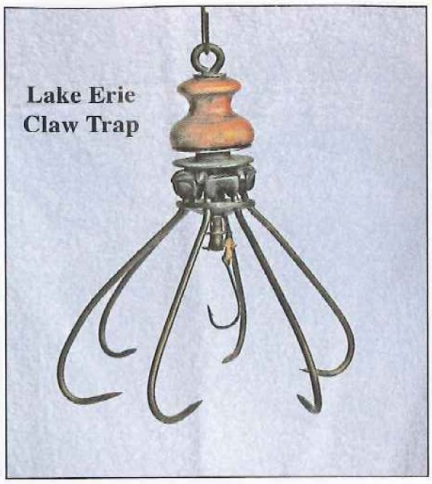


Stephen Lawrence Fish Trap

The patent also states that "rising from the base is a post to which may be attached a string for lowering the devise into the water." But there is no mention as to whether it was meant to be suspended or to rest on bottom.



Lawrence Trap in set position.



Lake Erie Claw Trap is not known to have been patented, though it resembles the more commonly found Evans' Eagle Claw Fish and Animal Trap, which was patented in 1877 (no known relation to the Evans who made the Fryin' Pan Trap).

However, it employs an entirely different setting mechanism that probably would have qualified it for a patent. Other superficial differences that set it apart from an Eagle Claw include steel rather than brass construction (except for a hollow central tube, which the spring coils around), six striking hooks instead of eight, use of a conventional fishhook to hold the bait, and the distinctive wooden knob near the line tie, perhaps included to provide buoyancy and help keep the trap in the desired pendant orientation when suspended in the water.

The revolutionary aspect in the design is that should the spring break, it could be replaced easily. Depending on the date of manufacture (it is almost certainly a factory trap) it may in fact be the first spring-loaded fishhook or fish trap with that improvement in design.

This trap was found in northern Ohio on Lake Erie, and since so little else of the trap's origin and history are known, I refer to it as the Lake Erie Claw Trap.

Turner and Fletcher Fish Trap is actually a combination fish and animal trap, invented by Lewis Turner and Henry Fletcher of Los Angeles, California, and granted a U.S. patent in 1894. Awesome is pretty much the consensus opinion of collectors who have seen this trap.

The 19 steel "claw wires" are set in jaws that measure approximately 10 inches wide and 10 inches high when closed, attached to a brass frame and powered by a torsional spring made of brass wire.

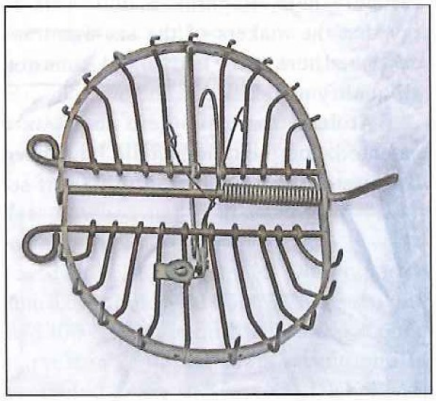
That powerful spring can be disconnected with a single finger pressing on the end where it hooks around a claw member, thus allowing the jaws to rotate freely open with no resistance.

There are several advantages to this, one being that the trap can be easily and safely baited while the spring is disengaged. Any creature caught (and presumably killed) could be removed easily by again disconnecting the spring, with no danger to the fisherman's hand because the jaws could not accidently spring shut.

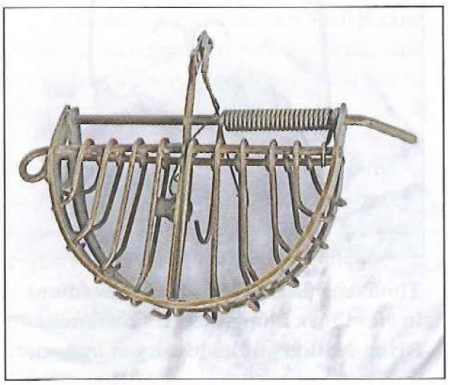
The equally clever bait holder is made of two brass wire arms connected to each other in such a way that baits of various sizes and shapes can be easily and securely held, due to the springy brass wire.

This particular trap can be traced back through a succession of gun and trap collections, dating at least to before WWII. It is stamped *19-----47*, which may refer to it being number 19 out of a production run of 48, minus the one that would have been sent to the patent office. But this is only conjecture on my part.

Continued on page 56

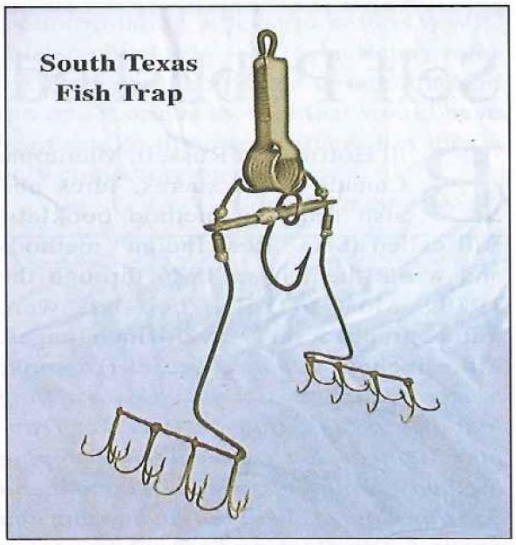


Turner and Fletcher trap in the open position (above) and closed (below).



The South Texas Fish Trap stands 12 inches tall with a row of four treble hooks soldered onto each of two arms that measure 3.5 inches in length. Even though the trap's innovative coilspring design and construction would have qualified, there are no known patent papers. The trap can be set with the striking arms in three different spreads. There is a shock-absorbing spring on the rod that acts as a line tie.

This trap was located about 60 miles southeast of Austin, Texas, by fellow collector Gary Jacobs. Gary says it most likely was used for the region's large yellow catfish (also known as flatheads), which go upwards of 80 pounds and are notorious for fighting and throwing a hook. This would explain why the trap maker



employed multiple treble hooks on both striking arms. To quote a man from south Texas who had experience with big flathead catfish: "Whoever made this trap, it wasn't their first time to a rodeo."

The same could be said of whoever made any one of these cleverly designed metal fish traps.

* * *

Dedicated to the memory of Tim Mierzwa, foremost authority and pioneer in the collecting of spring-loaded fishing lures, hooks and traps. Tim co-wrote *Spring-Loaded Fish Hooks, Traps and Lures* with Bill Blauser, the author of this article. To discuss antique metal fish traps and collecting, you may contact Bill at (412) 373-8203; bill@blauser.org ■

Work Continues on Maquoketa River Whitewater Park

~ Iowa Outdoors

MANCHESTER, Iowa - Manchester will be home to Iowa's newest river attraction when the Manchester Whitewater Park opens next summer on the upper Maquoketa River.

Construction began in September on the $1.8 million project that, weather permitting, will be finished by summer 2015. Crews are modifying the Marion Street Dam and adding five in-stream drop structures to create play areas along the river.

The new river features will be attractive to kayakers, canoeists, rafters, tubers, and standup paddleboard surfers, but planners wanted the area to appeal to other users as well.

"The Charles City project built in 2011 showed us that anglers and sightseers flocked to the area in even greater numbers than the in-river users," said Nate Hoogeveen, river programs coordinator with the Iowa Department of Natural Resources. "For Manchester, that made the on-bank access doubly important to serve pedestrians, joggers, and picnickers, as well as anglers."

Whitewater drop structures create drops and pools providing excellent fish habitat in the summer and overwintering holes during the colder months making these areas popular with anglers.

The project that arose from a brainstorming session in 2009 is expected to contribute an estimated $2 million in local economic activity through increased use and satisfaction from paddlers, anglers and outdoor recreation.

"A critical mass of these whitewater facilities -- along with outfitters and campgrounds that have sprung up along rivers -- is putting Iowa on the map as a destination for active professionals," said Iowa tourism manager Shawna Lode.

The whitewater park feature is one piece of a plan to improve and conserve the upper Maquoketa River corridor from Backbone State Park to Lake Delhi. Other features under consideration are redeveloping the riverfront through Manchester, habitat improvements, developing a water trail with improved access and signing, and developing a multi-use recreation trail connecting Manchester to the State Trout Hatchery east of town.

MEDIA CONTACT: Todd Robertson, Rivers Programs Outreach Coordinator, Iowa Department of Natural Resources, 515-725-2960.

September 2014

December 2014

Paddlefish Fishing returns to Missouri and Big Sioux Rivers in 2015

~ Iowa Outdoors

Paddlefish fishing will return to the Missouri and Big Sioux rivers for the first time since 1986, when the Iowa Department of Natural Resources opens the season on March 1.

The paddlefish season had been closed on Missouri River in 1986 due to concerns that habitat loss, altered hydrology and migration barriers created by reservoirs could jeopardize the population. In 1979, the Iowa Geological Survey Bureau reported that 61,642 acres of habitat between Sioux City and Hamburg was lost when the river was channelized.

Paddlefish are one species that have demonstrated resilience to changes in the river. Catch rates from netting surveys mirror results from other large Midwestern rivers. Unfortunately, usable population estimates from mark and recovery studies have eluded biologists. But that could change with help from anglers.

"This new season could provide us with enough angler collected data of recaptured tagged fish to provide us with a population estimate that we would have some level of confidence in. We encourage anglers to report any tagged fish they catch," said Van Sterner, fisheries biologist for the Missouri River with the Iowa Department of Natural Resources.

The tag is a small aluminum band around the fish's lower jaw. Each tag has a unique identification number, tagging agency information and a phone number.

To participate, anglers will need a special Missouri and Big Sioux River paddlefish license – limited to 950 resident and 50 nonresident – that are only on sale from Dec. 15 to Jan. 31. A resident license sells for $22 and nonresident for $42. Anglers must also have a valid Iowa fishing license.

The Missouri and Big Sioux paddlefish season is March 1 to April 15. Those season dates were selected to coincide with the increasing discharge from the upstream federal reservoirs and when the fish are in their prespawn migratory pattern. Catch rates from netting surveys are highest during the spring rising discharge.

Snagging paddlefish on the Missouri River is different than other rivers where paddlefish will concentrate in tail water areas.

"These fish are extremely migratory, traveling hundreds of miles. They will try to get out of the current when they can so areas behind wing dykes with slow moving, deep water will be places to target," Sterner said. "They don't associate with the bottom like catfish, but will be suspended so watch the electronics and if they are there, you should see them."

The flood of 2011 created scour holes in the river that have been popular with paddlefish and for anglers who can find them.

The Missouri River is a fast flowing river so anglers should be prepared to use heavy weights – from one ounce on up to 4-4-1/2 ounces, a medium-heavy to heavy rod at least six feet long and braided line of at least 50 pound test strength. Treble hooks can be no larger than 5/0 or measuring more than 1-1/4 inches in length when two hook points are placed on a ruler. It would also be wise to wear a lifejacket while on the water.

The state record 107 pound paddlefish was caught in the Missouri River in Monona County in 1981. Paddlefish is an ancient species. It doesn't have any bones and eats by straining zooplankton from the water. It reaches maturity at 6 or 7 years of age and can live for 30 years or more.

The slot limit requiring the release of all 35-45 inch fish protects the primary breeding stock. Most of the fish harvested will probably below the slot limit. The firm white flesh of the paddlefish is excellent table fare as long as the red meat near the skin is trimmed off.

The paddlefish license is required for the Missouri and Big Sioux rivers, but not for the Mississippi and Des Moines rivers.

MEDIA CONTACT: Van Sterner, Fisheries Management Biologist, Iowa Department of Natural Resources, 712-249-1997.

AFS ECXOM meeting

9-26-2014

Members Present: Ben Wallace (Past President) Allen Pattillo (President), Lewis Bruce (President-elect), Nic Rhinehart (Student-Subunit President), and Dan Rosauer (Secretary/Treasurer)

Started at 1pm room 333 Science II Iowa State University

- Introductions of all present members
- The following contacts at the parent society were discussed to familiarize new officers with who to contact for information: Gail Goldberg (Certification Coordinator) and Jasmine Sewell (Unit Services Coordinator)
- Dan Presented a funding update
  - Discussed limited annual expenses and few grant requests in the past
  - Mentioned an investment option through the parent society that will likely be rolled out in the next year
  - Request was made to look back at previous annual meetings and develop a typical range of costs
- Grant submission by Jeff Kopaska for $1000 to preserve Maynard Reece prints currently at Rathbun Hatchery was discussed
  - Funds would be used as a cash match to be combined with other funding sources
  - Vote will be conducted at the business meeting to fund the project
- Nic presented a student subunit update
  - They put on an aquatic invertebrate workshop with several other workshops currently being planned
  - Discussed the student subunits financial situation
    - Ok shape and most expenses arise from travel to field offices to gain experience and help DNR field staff
  - Idea was brought up to have an area of lateral lines dedicated to the student subunit
- Suggestion was made to discuss at the business meeting to give the EXCOM the ability to give money to student subunit for travel
- Discussed official duties of the various officers
- Request was made to compare e-mail list serve with list of dues paying members

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.