IOWA AFS CHAPTER
American Fisheries Society

LATERAL LINES

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THE NEWSLETTER OF THE IOWA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

CHAPTER OFFICERS

PRESIDENT
Bernard Schonhoff
Fairport Fish Hatchery
3390 Highway 22
Muscatine, IA 52761

PRESIDENT-ELECT
Gary Siegwarth
Manchester Hatchery
RR 2 Box 269A
Manchester, IA 52057

SECRETARY-TREASURER
Tom McCarthy
Bellevue Research Station
24143 Hwy. 52
Bellevue, IA 52031

PAST PRESIDENT & MEMBERSHIP CHAIR
Martin Konrad
Wallace State Office Bldg.
Des Moines, IA 50319

AMERICAN FISHERIES SOCIETY 125 Quasqui centennial 1870 - 1995

PRESIDENT'S CORNER

Its fall, the leaves are changing or have already fallen and everyone's field season is starting to wind down. It's time now to start thinking about our next chapter meeting. The first call for papers is in this newsletter, as well as, the dates and place for our joint meeting with the Minnesota chapter. Also you'll find elsewhere in the newsletter the list of new officers elected this year. The chapter has come out in support of reauthorization of CRP, remember you heard about it here first.

INSIDE

Joint Iowa-Minnesota Chapter Meeting

February 21-23, 1995
Village East Resort, Spirit Lake

The rumors are true the Iowa Chapter will be hosting the Minnesota chapter in a Joint meeting. The dates set for this event are Feb. 21-23, 1995. The last time the two chapters met jointly was in 1986. So it has been some time since we've had the opportunity to exchange views and renew old friendships with our neighbors to the north. Now the best news of all is we will be meeting in the Iowa Great Lakes Region in beautiful Okoboji, Iowa at the Village East Resort. Those of who attended the cool water meeting know how great this facility is, those of you who didn't are in for a real treat. The resort has very nice rooms and great amenities like an Olympic size lap pool, whirlpool, full service health club, indoor tennis courts, hand ball courts, and even an indoor walking/jogging track. They even rent cross country skis. So mark your calendars and plan on not missing this.

White Elephant Auction

The Minnesota chapter president- Carl Richards said a white elephant auction sounds like fun. So everyone start going through your closets and basements to find those items of little value to you but of great value to others. The white elephant auctions have been a lot of fun when we've met with the Nebraska folk. lets introduce the Minnesota chapter to this great fund raiser in a BIG way.

Chance to Win *Luxury* Accommodations

Wouldn't you love to spend your time at the chapter meeting in a luxury two story suite overlooking the golf course? Arrangements have been made to rent two of these suites for the regular room rate. Those preregistering can buy a $2.00 chance for the right to sleep in luxury. Look for more details in the registration package mailed out in December.

Wallyball Challenge

In conjunction with the meeting the Village East Resort offers the opportunity for a few wallyball games played on the hand ball courts. It would be great if some of those taller athletic types, that still think they can slam dunk a basketball, would get together a team and issue a challenge to the Minnesota chapter. If you' re interested in this let Bernie know so the necessary arrangements can be made.

REAP Report

by Dick McWilliams

The REAP Alliance is again in the planning season for this next year's activities. Information about REAP and its programs have already been mailed to legislative candidates. If you know individual candidates, and know their views on REAP, the Alliance would like some help. It would help in planning for the upcoming sessions, if you would drop me a note, or call and let me know what candidates views are. I will pass the information along.

The REAP license plates will be out in Jan., 1995. Although some information may be out now, application forms will be out later, and the plates themselves won't be available until the first of the year. Information has been sent to County Treasurers, and a sample plate, or literature is up in some county offices. The plates feature a goldfinch on a rose, and are quite attractive. The county name will appear on the plates. Only five characters are available on the personalized plates. Orders of personalized plates will typically take from 10-20 days to fill. The plates can be purchased at anytime during the year, for the initial fee, and the renewal will go with your annual renewal dates.

Ross Harrison attended the October meeting of the Alliance and talked about some of the pro's and con's of the plate sales. Ross sees the success of the license plates sales as strongly linked with 1) getting the message of where the money from the sale of the plates will go; and 2) having a strong, active network of local people promoting the sale of the plates.

Where the money goes: the regular REAP plates will have two alphabet characters followed by three numbers. These plates will cost $35.00 more than the regular vehicle plate, and at each following registration will cost an additional $10.00. All the moneys from the sales of these plates will go to the REAP fund. A personalized REAP plate will cost $80.00. The first $35.00 goes to REAP, the rest goes to the Road Use Tax fund.

Promotion: Local organizational effort will be focused on the REAP committees. However, everyone is encouraged to get involved with the promotion and sale of the licenses. The better the promotion, the better sales and support will be for the whole program, plus of the course, the word REAP will be more widespread.

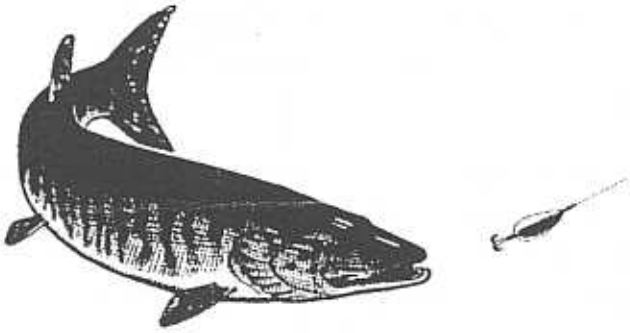
A bit of trivia: Know many have seen the ISU, UI, and UNI licenses in Iowa , and know how visible they are. However, did you know that total sales are between 9 and 10,000 plates. I think this is indicative of how visible these types of plates are.

What single word describes this pictogram?

Answer on following page

Congratulations! New Officers

In a closely contested election it appears that our own Gary Siegwarth, of the Manchester research crew, won the position of president-elect. Congratulations Gary. A hardy thanks and condolences to Paul Sleeper for making it a real horse race for the position. The race for secretary-treasurer was not so hotly contended since Tom McCarthy ran unopposed, but again congratulations and thanks Tom. Thanks also need to go to Andy Moore and Tom Gengerke the nominations committee .



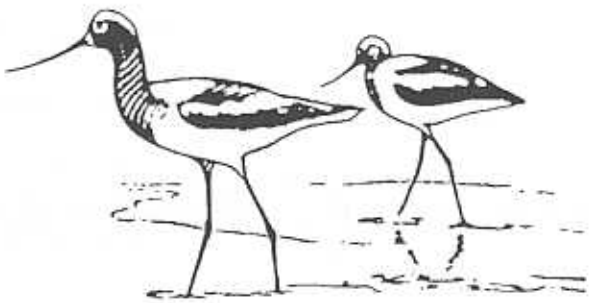
Chapter joins CRP Supporters

In September, the chapter was asked to join with a number of conservation and agriculture organizations in supporting the reauthorization of CRP. A quick telephone poll of the excom found all in favor of signing a joint statement with 19 other organizations asking for continuation of CRP. Pointing out the environmental, as well as, economic benefits of the program. Letters and copies of the joint statement were mailed to the Iowa Congressional contingent, and the Department of Agriculture. So far Congressmen Neal Smith and Jim Nussel have returned letters expressing their appreciation for our comments.

News from ISU

John A. Downing has accepted a position at ISU. Dr. Downing is an aquatic ecologist that held the position of professor at the University of Montreal. He received his undergraduate degree from Hamlin University, his M.S. from North Dakota State University, and Ph.D. from McGill University. Welcome to Iowa Dr. Downing.

Joe Morris is working on a revision of the Aquatic Vegetation Control Manual. Also the North Central Regional Aquaculture Center has the following publications out, Walleye Culture Manual, Sunfish Culture Guide, and Cage Culture Manual.



Answer to pictogram: Caviar (a row of sturgeon)

Iowa Buffer Strip Research

A study funded by the Aldo Leopold Center for Sustainable Agriculture looked at riparian buffer strips as part of the Best Management Practice (BMP) restoration project. The study entailed starting from scratch to develop buffers using native species of trees and prairie grasses.

Such a buffer, termed a *constructed multi-species, riparian buffer strip*, was planted in a 66-foot-wide border between crop fields and Bear Creek, a third order stream in Story County, Iowa. Beginning at the crop field edge and moving toward the stream, the buffer strip includes a 24-foot wide strip of native prairie grass, two rows of shrubs, and four rows of trees.

Richard Schultz, mutidiciplinary study team leader, is now monitoring the zone to see if it can function as a multi-purpose, economically feasible, environmentally beneficial land use. It should, Schultz explained, function as a BMP, also yielding wood products while providing additional environmental benefits, such as increased biodiversity for wildlife habitat, sequestering of carbon for reduced global warming and improved aesthetics in a rather sterile agriculture landscape.

The multi-disciplinary study team carefully selected plant materials to perform specific functions within the structure of the buffer strip as well as to provide potentially marketable products. A primary characteristic of most of the selected species is rapid growth, which allows restoration of riparian community in the shortest possible time.

The team chose willow, cottonwood hybrids, and silver maple for the rows closest to the creek to improve bank stability and take up agrichemicals. These fast-growing trees will be harvested on an 8-12 year rotation and will resprout from the stump, leaving the root system intact and the soil undisturbed. Slower growing, high quality hardwoods like red oak and black walnut may be planted for timber in outside rows, depending on soil type and owner objectives.

The shrub rows develop a perennial root system, and their multiple stems slow floodwaters. Researchers chose shrub species that enhanced biodiversity and wildlife habitat, but some species, such as hazel, can be harvested for their nut crop.

Wildlife can benefit from the cover and food provided by the diverse plant community. "We are developing corridors that are favored by edge species of wildlife. In an agricultural landscape management scheme, these corridors would, ideally, connect larger tracts of perennial plant communities which would provide habitat for interior species. However, in the Cornbelt region of the Midwest, these corridors might provide the only respectable wildlife habitat in the county," Schultz acknowledged.

In the outer rows of the buffer, native, non-bunch prairie grasses and woody plants penetrate the soil with deep, extensive root systems that stabilize the riparian zone, increase infiltration of runoff, and help restore soil structure. Above the ground, their dense, stiff stems slow runoff, reduce flooding, and trap eroding sediment.

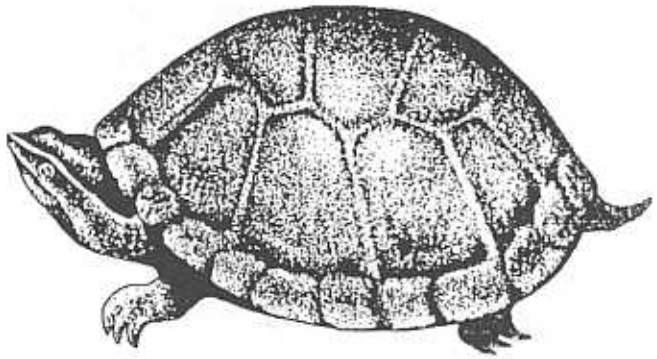
Less clear is the impact of the buffer strip on nitrates and atrazine. Initial soil water quality data indicate that the buffer strip is producing a zone of lower agrichemical concentrations along the creek. the study team has not yet clearly established the processes responsible for these reductions, but they suspect that plant uptake, microbial activity, and soil immobilization play roles. Effects on the stream are complicated by field drainage tiles, which carry water rapidly under and through the buffer strip.

To address this problem, researches constructed a small cattail wetland at the end of a field tile in the spring of 1994. They are now collecting inflow and outflow water samples to determine how well the wetland can reduce agrichemical concentrations.

Researchers also successfully used a system of willow posts and cuttings inserted directly into the streambed and streambank to immediately strengthen some eroding banks. The willow post system proved its worth by dramatically reducing erosion during the 1993 floods. Along vertical streambanks, bundles of dead trees are staked into the bank to protect it while willow cuttings planted among them became established.

In addition to water quality benefits, bank stabilization, and habitat for aquatic and terrestrial animals, the researchers think the buffer zone will provide some economic benefits to landowners. Some hardwoods could be slated for timber harvest. Hazelnuts are another potentially marketable product. One of the most promising future markets is according to Schultz, fuel biomass. "Presently, biomass can be used on-farm, but ethanol can be produced from woody plants and switchgrass, and biomass can be mixed with coals to co-fuel power plants. Our buffer strip model can produce large quantities of biomass, and we think the markets for this are getting closer and closer," said Schultz.

According to the final report, the tree and shrub zones can be combined, and the buffer region design can easily be adapted to the USDA riparian buffer strip recently approved for *(con't)*



cost-sharing on agricultural lands or that suggested by the Forest Service for the northeastern states.

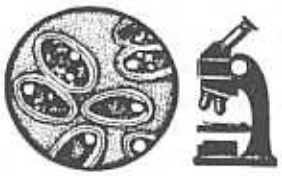
A number of other cost-share programs can also fund a buffer strip based on this model. The economist on the team estimated that the installation would cost between $350 and $400/acre. A mile-long, 66-foot wide strip on both sides of a stream occupies only 16 acres of land, and along meandering streams, much of this land cannot be efficiently row-cropped, according to the researchers.

Now in its fifth growing season on the property of a cooperating farmer, the strip will need to be monitored for at least 10 to 15 years to fully understand how it works. More research is needed to identify and quantify the processes responsible for agrichemical and sediment reductions, and a longer stretch of buffer strip should be installed to identify impact on the instream ecosystem.

"The ability of this riparian plant community to modify soil, trap sediment, sequester carbon and agrichemicals, and provide wildlife habitat is far superior to riparian zone communities consisting of annual crops, such as corn or soybeans, or pastures composed of cool-season grasses," Schlutz said.

For more information contact: Richard C. Schultz, Department of Forestry, 251 Bessey Hall, Iowa State University, Ames, IA 50011, (515) 294-7602, FAX (515) 294-2995

Source: July/August 1994 Issue #37, Nonpoint Source News Notes



Iowa's INAD's

The investigational new animal drug (INAD) is a name with which many of the state's fish culturists have become familiar. It has allowed them to use drugs they otherwise couldn't. By following the INAD procedures, the Food and Drug Administration allows the Iowa Department of Natural Resources to test drugs which aren't currently labeled for use in aquaculture.

There are very few federally approved chemicals to treat fish diseases because of the high cost of drug testing and the low profitability in the small market of aquaculture. Though drugs exist which cure fish disease, they legally cannot be used because they are not specifically approved for use in food fish. By sponsoring these drugs using INAD procedures, the state of Iowa is opening the door for federal approval at a later date.

Each INAD requires every disease treatment to be set up as if were an experiment. From the UPS arrival of the chemical at the hatchery through the chemical withdrawal period after the fish have been treated, each stage of handling must be documented and accounted. Extensive logs must be maintained for each chemical lot containing the information of; when, where, how much, and why a chemical was used. Each chemical sponsored by an INAD requires authorization from the manufacturer, the principal study monitor, the investigator, and the applicator before it can be used. All of this paperwork adds up to a large headache for those who deal with it, but it insures the angling public that the aquaculturists in the state of Iowa are doing everything in their power to produce safe healthy fish.

Current Iowa INAD Studies include: *Cutrine-Plus™*, *Chloramine T*, and *Human Chorionic Gonadotrophin (HCG)*

For information on the status of Iowa's INAD studies, contact Terry Jennings, Rathbun Fish Hatchery, (515) 647-2406

Brain Teasers

So You Think You Know Your Centrarchids?

matching:

un-scientific name	common name
1) *Oswego bass*	a) largemouth bass
2) *plumb granny*	b) white crappie
3) *tobacco box*	c) smallmouth bass
4) *tupelo bream*	d) northern rock bass
5) *redspotted sunfish*	e) black crappie
6) *rubber-tail*	f) orangespotted sunfish
7) *strawberry bass*	g) pumpkinseed
8) *black perch*	h) bluegill
9) *hawg*	i) warmouth
10) *grass bass*	j) green sunfish
11) *stumpknocker*	k) redear sunfish

Answers

1-c; 2-h ; 3-g ; 4-k ; 5-f ; 6-j ; 7-b ; 8-d ; 9-a ; 10-e; 11-i

Did you know?

The Fairport Fish Hatchery was established in 1908 as a freshwater mussel research and propagation station by the federal government.

The zebra mussel was introduced into North America in 1985 via ballast water that was discharged into Lake St. Claire near Detroit.

The washboard, *Megalonaias gigantea*, is the largest and most comercially prized of the freshwater mussels found in Iowa.

Freshwater mussels once were used for making buttons but are now used to make cultured pearls.

AcronymSoup

Identify the acronym:

NEPA	BKD
IDNR	USACE
EMP	P&G
CFS	MOU
ICAFS	UMRCC
ISU	UCOWR
AC-FT	TIGER
IDOT	FWD
FY	NCRAC

Answers on following page

Trivia!

Q: How many Mississippi River dams border on Iowa?

A: 11; From L&D 9 in Allamakee Co. to L&D 19 at Keokuk

Q: How big was the largest largemouth bass caught in Iowa on hook and line?

A: 10 lbs 12 oz.; 23 1/2"; Lake Fisher, Davis County, Caught by Patricia Zaerr of Davenport 5/84

Q: Where is Iowa's largest bullhead?

A: Crystal Lake, Iowa; Iowa's largest bullhead is a sculpture that sits on the south side of the lake

Q: What fishing lure was invented and manufactured by a Fort Dodge sporting goods store?

A: The Lazy Ike, Invented by "Lazy Ike" Kautzky

AcronymSoup Answers:

NEPA	National Environmental Policy Act
BKD	Bacterial Kidney Disease
IDNR	Iowa Department of Natural Resources
USACE	United States Army Corps of Engineers
EMP	Environmental Management Program
P&G	Economic and Environmental Principles and Guidelines for Water and Related Land Resources
CFS	Cubic Feet per Second
MOU	Memorandum of Understanding
ICAFS	Iowa Chapter of the American Fisheries Society (10 demerits for missing this one)
UMRCC	Upper Mississippi River Conservation Council
ISU	Iowa State University
UCOWR	Universities Council on Water Resources
AC-FT	acre-feet
TIGER	Topologically Integrated Geographically Encoded Reference
IDOT	Iowa Department of Transportation
FWD	Fish & Wildlife Division, Freshwater Drum, or Four Wheel Drive
FY	Fiscal Year
NCRAC	North Central Regional Aquaculture Center

Rating:
1-5 correct: slimy sculpin, 6-10: yellow bullhead, 11-15 : bluegill, 16-18 muskellunge

Upcoming Events

December 4-7, **56th Midwest Fish and Wildlife Conference - The Future of Fish and Wildlife is Now.** Adam's Mark Hotel, Indianapolis, Indiana. Contact Debbie Fairhurst, Division of Fish and Wildlife, Atterbury Fish & Wildlife Area, Edinburgh, IN 467124, (317) 232-7535

January 8-10, **1995 Coolwater Culture Workshop.** Nittany Lion Inn, State College, Pennsylvania. Contact Martin Marcinko, Pennsylvania Fish and Boat Commission, 450 Robinson Lane, Bellefonte, PA 16823. (814) 359-5222

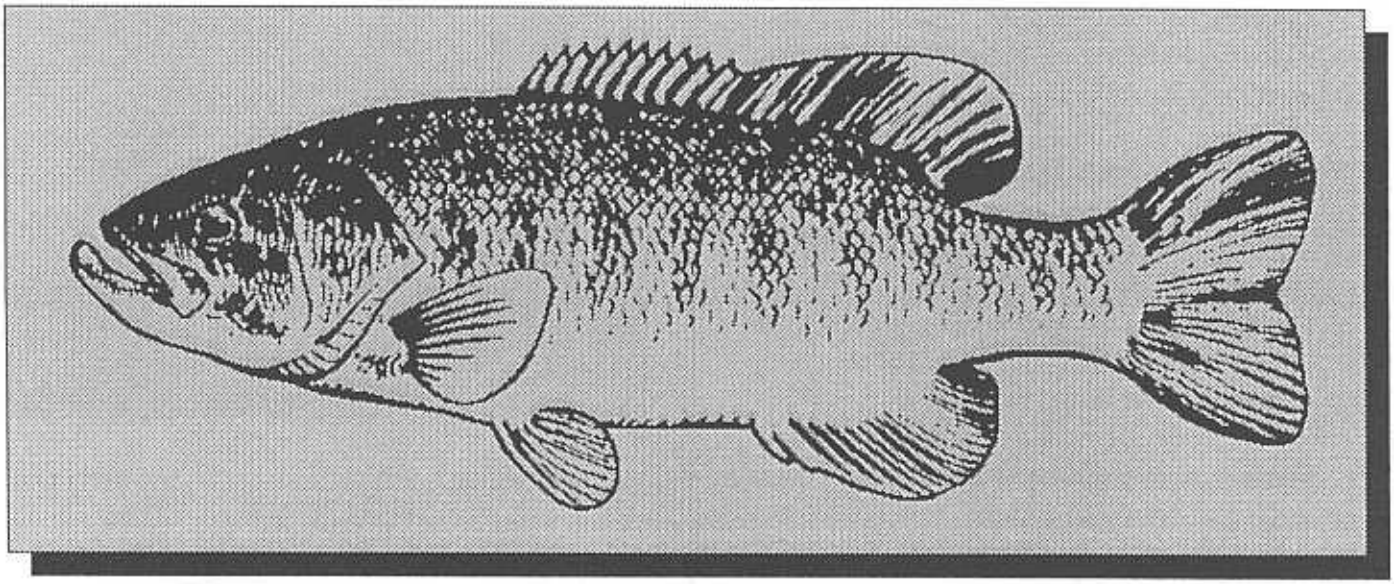
February 14-15, **1995 Mid Continent Fish Culture Workshop.** Ramada Hotel - Kansas City International Airport, 7301 NW Tiffany Springs Road, Kansas City, (800) 234-9501

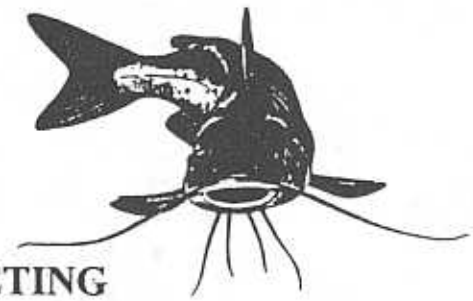
February 21-23, **1995 Joint Iowa - Minnesota AFS Chapter Meeting.** Village East Resort, Spirit Lake, IA. Contact Bernard Schonhoff, Iowa DNR, Fairport. (319) 263-5062

February 27- March 1, **Iowa DNR Fisheries Bureau Statewide Meeting.** Springbrook State Park, Guthrie Center, IA. Contact Marion Conover, Wallace State Office Building, Des Moines (515) 281-5208

March 15-17, **51st Annual UMRCC Meeting - Celebrate the River.** Best Western Midway, Dubuque, IA. Contact Tom Boland, Iowa DNR, Bellevue Research Station. (319) 872-4976

August 28- September 1, **1995 AFS Annual Meeting - Fisheries: A Vision for the Future-Science, Application, Communication.** Tampa Convention Center, Tampa, Florida. Contact AFS Headquarters (301) 897-8616





CALL FOR PAPERS

IOWA - MINNESOTA JOINT AFS MEETING
VILLAGE EAST RESORT, OKOBOJI, IOWA
FEBRUARY 21-23

We are requesting oral and poster presentations for the joint chapter meeting with Minnesota in February. This will be a great opportunity to let Minnesota in on some of the excellent fisheries work going on in Iowa.

Presentations will be 15 or 20 minutes depending on the number of abstracts received. If you would like to submit a paper or poster, please complete the abstract form by Jan 1, 1995 and mail to:

Gary Siegwarth
Manchester Hatchery
RR 2 Box 269
Manchester, IA 52057

ABSTRACT *

Title
Name of Author(s)
Address (including zip)

Abstract

* It is important to send the completed abstracts in as soon as possible so they can be printed in a booklet for the meeting.