

Mainstream

President's Message by Gary Whelan



Another year is zipping along and fall is already upon us. The change in the leaf color means a change in NCD leadership and we all owe a debt of gratitude to outgoing President Gwen White (now Past-President), Past-President Randy Schultz (now free) and Secretary-Treasurer Jason Goeckler (will be free soon) for their outstanding efforts on our behalf. We have been fortunate to have these fine folks as a part of our NCD EXCOM and they have and continue to do much to help Phil Moy (President-Elect) and myself as we assume our new roles. In the next month, we will be having an election to replace Jason with a new Secretary-Treasurer and will be adding our First President-Elect to the EXCOM. Please be watching for the ballots and be sure to vote.

Just before the change of seasons, the State of Minnesota did an outstanding job of hosting the Annual American Fisheries Society meet-

ing in Minneapolis. In spite of a lot of additional and often last minute challenges, it was one of the larger North Central Division Annual AFS meetings with an attendance of nearly 1700 and smoothly run (at least from the outside) that will be in the black financially. Next year, the meeting is in Little Rock, Arkansas (Sept. 8-12, 2013) and it should be another outstanding opportunity to learn much about fisheries including the many professionals who make up our community. After Little Rock, the meetings will be in Quebec City (Aug. 17-21, 2014) and Portland (Aug. 12-21, 2015), and this is likely to end the standard rotation between the Divisions as it is getting more and more difficult to find meeting hosts given the economics of our business. Annual meetings are a large commitment of chapter, division and usually state agency time all of which is getting more difficult to come by. They are also very large and complicated businesses with budgets up to the million dollars or more. So it is likely that our future meetings will be managed through the additional employment of meeting planners and the use of willing and profitable locations as these meetings also provide revenue to the Society. As the discussion progresses on

this issue, we will keep you abreast of the developments.

Thinking about meetings, the Midwest Fish and Wildlife Conference will be from December 9-12, 2012 in Wichita, Kansas at the Hyatt Regency. I know the professionals in Kansas are working very hard to make this a memorable meeting and Wichita is a neat and fun city that I had the chance to personally experience in June during the Midwest Association of Fish and Wildlife Agencies Meeting. So put it on your calendars and make it to the Midwest Conference as it will be a super event.

So what are the challenges facing the society at this time? Likely the first and foremost is the planning for the Executive Director succession as Gus Rassam is expected to be stepping down next fall. Getting the best possible talent to run our Society is one of the most important tasks that only occurs about every decade or so. There is a dedicated group of senior Society leadership working on this task and they will use professional talent agents to assist them with this critical selection. It is expected that candidate will be decided on by the Mid-Term Governing Board Meeting so more information will be coming forth as I know more. *(continued on next page)*

This newsletter is published twice a year. Deadlines for submission are April and September 1st. The views and opinions expressed herein are not necessarily those of the NCD.

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President's Message (continued)

With respect to the Society finances, they are looking pretty stable and are tracking as expected at this time. About the only area of concern is a large drop in book sales but sales are likely to rebound with the release of the new Fisheries Techniques book this fall. Our Division finances are also stable and in good shape. This will again allow our EXCOM to visit as many Chapter meetings, along with some student sub-chapter meetings, as possible so please be sure to let us know when and where they will be held along with any changes in your Chapter officers. We would appreciate your assistance with expenses once we get to your meeting so we can make our travel budget stretch as far as possible.

Finally with respect to Society news, the new salary survey will be released

in the near future. This effort that occurs about every 5-10 years really helps us track where our salaries are going and assists our employers in ensuring their employees are fairly and equitably compensated. I know the survey has been used successfully by a number of state agencies to improve the lives of their fisheries professionals so this survey will likely do the same. A final note on Society items is that a committee has been formed to provide recommendations on how to improve the communication of our scientific information to our members and to the public with the intent to increase the amount of distance and remote information access and learning opportunities.

I will be finishing my President's workplan this month and will put it out on the listserve for all of you to con-

sider and provide me feedback on. It will be further discussed and voted on at the NCD business meeting which will be late Monday afternoon (December 10) at the Midwest Fish and Wildlife Conference. I look forward to working with all of you this coming year and if you have specific issues/items that you think the NCD should address, please contact me. Always remember that your Division officers are here to serve you and you are always welcome to contact us on any Society and Division issues.

I wish all of you an outstanding fall season (my personal favorite season), a happy forthcoming holiday season, and do not forget to put the Midwest Fish and Wildlife Conference on your calendar.

COMMITTEE REPORTS

Continuing Education Committee by Mark A. Kaemingk

We are pleased to announce that three great workshops will be offered at the 73rd Midwest Fish and Wildlife conference in Wichita, Kansas. The first workshop pertains to "**R Introduction for Basic Fisheries Analyses**" instructed by Dr. Derek Ogle from Northland College. The second workshop focuses on **how to archive pertinent and important information for long-term use** and will be instructed by Randi Sue Smith from the DC Booth Historic National Fish Hatchery and Archives. Finally, the last workshop will cover "**Before-After-Control-Impact (BACI) Statistical Designs: Detecting Change in Aquatic Systems**" and will be instructed by Dr. Daniel James of the U.S. Fish and Wildlife Service and Dr. Steve Chipps who is the Unit Leader at the South Dakota Cooperative Fish and Wildlife Research Unit.

These workshops are intended to provide learning opportunities and the development of different skill sets for students and professionals alike.

We would encourage those who are interested to sign up for these workshops as each instructor has graciously devoted time and energy into developing these courses and thus more applicants would ensure these efforts are fully appreciated. These workshops are also offered at a very generous cost, thus should be very affordable for any student or professional who wishes to attend.

Please see the workshop flyer for more details and how to register at the following link:



Is proud to present three Continuing Education Courses:



<http://www.midwestfw.org/documents/ContinuingEdCredits.pdf>

For any questions, please email Mark Kaemingk at mark.kaemingk@sdstate.edu.

See you in Wichita!

Membership Committee by Doug Workman

The membership of the North Central Division is comprised of members of good standing in the following states and provinces: Alberta, Illinois, Indiana, Iowa, Kansas, Manitoba, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Northwest Territories, Ohio, Ontario, Saskatchewan, South Dakota, and Wisconsin. Membership of the North Central Division increased by a total of 279 members from 2011 to 2012. Regular membership accounted for the largest gain, with a total of 208 new members, followed by young professionals (37 new members) and students (28 new members).

Province/State	Honorary	Life	Regular	Retired	Student	Young Professional	Total Number
Alberta		4	47	1	9	3	64
Iowa		14	29	5	14	7	69
Illinois		16	64	9	44	23	156
Indiana		10	44	4	23	8	89
Kansas	1	1	20	1	10	5	38
Manitoba		1	18	2	1	1	23
Michigan		27	111	19	90	23	270
Minnesota		23	192	5	35	17	272
Missouri		19	60	6	22	10	117
North Dakota		4	6		3	1	14
Nebraska		5	18	1	11	1	36
Northwest Territories			1		3		4
Ohio		10	48	6	34	9	107
Ontario	2	9	146	6	45	23	231
South Dakota		2	28	4	20	4	58
Saskatchewan		1	17				18
Wisconsin		19	110	12	29	15	185
Total by Type	3	165	959	81	393	150	1751

Summary of members by location. Data source: AFS September 25, 2012.

UPCOMING EVENTS

NALMS International Symposium and Conference



The 2012 *North American Lake Management Society International Symposium and Conference* will be held in Madison, Wisconsin (USA) between 7 and 9 November 2012. The conference theme is “Lakes in the Landscape: Values, Visions, Actions”. Interested persons should contact NALMS through the Society website, www.nalms.org, for further information.

Midwest Fish & Wildlife Conference



The annual Midwest Fish & Wildlife Conference attracts over 800 biologists and students from state and federal natural resource agencies across the 12 Midwestern states. Highlights include: over 400 technical talks, poster displays, plenary sessions, networking opportunities and social events.

CHAPTER & STUDENT SUBUNIT REPORTS

Indiana Chapter, Ball State University Subunit by Brianna Ciara



Anna Settineri getting up close and personal with a yellow bullhead at the electrofishing demo.

Ball State University's subunit of the Indiana Chapter American Fisheries Society greeted the fall semester with an activity fair successfully recruiting 10 new members! An electrofishing demonstration at West Side Park in Muncie, IN initiated the semester's activities and gave BSU students an opportunity to learn the operation of a backpack electrofisher. Students have also attended a knot-tying workshop, learned about undergraduate research through a presentation by Vice President Nick Haunert, and begun planning a group research project. The project will entail conducting a pond survey, by the request of a local

farmer, to determine the quality and potential for a successful fishery. This will give students practice boat electrofishing, fish identification, survey methods, report composition and serve as public outreach. Many more semester activities are also planned such as an annual clean up of a stretch of the White River, attendance to the Fall Indiana AFS meeting and QHEI training, a professional lecture and CV night to help students compose resumes, cover letters and job applications. Ball State's AFS group also continues to promote these fisheries activities through a Facebook and student chapter webpage.

Michigan Chapter by David Clapp

So far, 2012 has been a busy year for the 291 members of the Michigan Chapter; chapter members have hosted meetings and continuing education workshops, worked on policy and resolution development, provided support for student travel and professional development, and begun development of materials to illustrate the important role that aquatic resource professionals play in society.

The Michigan Chapter held an annual meeting in February 2012 in Marinette, Wisconsin. The meeting was held jointly with the Wisconsin Chapter, and included a fish health workshop taught by Becky Lasee and staff from the USFWS LaCrosse Fish Health Center. In addition, meeting attendees heard presentations in sessions on sturgeon ecology, walleye / bass interactions, habitat monitoring

and restoration, lake whitefish stocks, and status of Great Lakes basin brook trout populations. The meeting included several social events, and was a great opportunity to interact with AFS members from across the lake. Plans are currently underway for our 2013 meeting, to be held February 19-21 in Gaylord, Michigan (http://www.fisheriessociety.org/miafs/upcoming_meet.html). The theme of the meeting is "Case Studies in Fisheries Management".

Michigan already has a very active and successful student sub-unit at Lake Superior State University in Sault Ste. Marie. During 2012, Michigan Chapter members and the executive committee worked with students at Michigan State University in Lansing to help formally establish the second Michigan student sub-unit. We're very

excited about the great work the MSU students are doing, and happy to welcome them to the American Fisheries Society.

In addition to meetings, workshops, and organizational activities, chapter members have been hard at work on a variety of issues. For example...

- Members of the Michigan Chapter were instrumental in development of the recent AFS resolution "Ecological Separation of the Great Lakes and Mississippi River Drainage Basins" (http://www.fisheries.org/afs/policy/policy_res).
- Our Resolutions Committee is beginning work on investigating and developing an issue statement pertaining to coal ash pollution.

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- The AFS Water Quality Section (led by Michigan's Doug Bradley) hosted an all day symposium at the 2012 national meeting, titled: *Innovations in Thermal Research and Ecological Effect from Thermal Discharges* (<https://afs.confex.com/afs/2012/webprogram/Session2181.html>).
- The Michigan Chapter and members continue to provide financial and organizational support to the Hutton Junior Fisheries Biology, Duffy Award, and Janice Lee Fenske Memorial Award programs.
- Part of the Michigan Chapter plan of work for 2012-13 is to develop materials (print, video, online) advocating for biologists and aquatic professionals – illustrating for the public and non-scientists the positive contributions made by aquatic professionals in Michigan and nationally.

Nebraska Chapter, Cornhusker Student Subunit by Robert Kill

Officers during the 2012-2013 school year

President – Robert Kill
 Past President – Jeremy Hammen
 Vice-President – Jamie Jones
 Secretary/Treasurer – Chris Wiley
 Webmaster/Historian -
 Carrie Adkisson
 Faculty Advisor – Dr. Mark Pegg
 Facebook Group Page:
www.facebook.com/#!/group.php?gid=143554561321

Goal 1: Global Fisheries Leadership

AFS will be a global leader providing information and technical resources for the sustainability and conservation of fisheries resources.

We, here at the student subunit, understand that the future of our field is reliant on the production of new scientists. We also understand that the traditional

route to becoming a fishery scientist has changed- now almost always requiring graduate school. For these reasons, we focus on collaboration among graduate researchers and recruitment of new undergraduates. We have moved toward monthly meetings, with specific goals of providing resources and experience for our members.

Goal 2: Education/ Continuing Education

AFS will facilitate life-long learning through world-class educational resources at all academic levels and provide training for practicing professionals in all branches of fisheries and aquatic sciences.

The most prominent addition to our plans from last year is our objective to provide a travel grant to an under-

graduate. We believe this will help encourage scientific thinking and allow for better networking. During our first officer meeting, we will decide our other education/continuing education goals. These will likely include seminars from biologists, graduate-undergraduate mentorships, and group collaboration. We will also plan a community assessment for Bowling Lake in Lincoln, Nebraska.

Goal 3: Value of Membership

AFS will serve its members and fisheries, aquaculture, and aquatic science constituencies to fulfill the mission of the Society.

We held a welcome back barbecue to instill camaraderie among members and to recruit new members. Improvements in this area are necessary, and therefore a focus of this year.

NEWS AND ANNOUNCEMENTS

Student Opportunities by Jessica Mistak

2012 Midwest Fish and Wildlife Conference Janice Lee Fenske Memorial Award for Outstanding Students

Monday, December 10, 5:30-8:00 p.m.
Wichita, Kansas

Sponsored by:
North Central Division, and Kansas and Michigan Chapters of the American Fisheries Society
Kansas and Michigan Chapters of
The Wildlife Society
Midwest Fish and Wildlife Conference Steering Committee

We are pleased to accept applications for the **Janice Lee Fenske Memorial Award** from undergraduate and graduate students studying fisheries or wildlife management. Up to 25 outstanding students will be selected and formally recognized for their achievements during the Midwest Fish and Wildlife Conference's Student Professional Mixer. The mixer will provide a unique opportunity for students to meet and closely network with many fish and wildlife leaders from around the region.

In addition to the student finalists, two students—one majoring in fisheries management and one majoring in

wildlife management—will be presented with a Fenske Memorial Award that includes a scholarship of \$500. The two winners of the Fenske Memorial Award will be selected based on the characteristics that made Jan Fenske a remarkable fisheries biologist, including enthusiasm to protect fisheries and wildlife resources through management activities, selflessness and motivation to teach others, interest in professional involvement, integrity, positive attitude, and compassion. For more information on Jan Fenske and the history of the award, please visit http://www.fisheries.org/units/miafs/jfenske_award.html.

To apply, please submit a resume that includes your GPA, one letter of recommendation from academic advisors or professionals in fisheries or wildlife management, and a one page cover letter including future career goals and reasons for attending the Midwest Fish and Wildlife Conference. Application materials should be sent to Jessica Mistak, Fenske Award Committee Chair, mistakj@michigan.gov. **The deadline for submission is October 30, 2012.**

Student applicants selected as finalists will be notified by November 20, 2012.

2011 Midwest Fish & Wildlife Conference Paper/Poster Award Winners by Chad Dolan



Best Fisheries Paper

Ruth Briland, The Ohio State University, "An Ecological Approach to Raising Walleye and Saugeye Fingerlings in Earthen Ponds: Inorganic Fertilization, Stocking Schedules, and Stocking Densities".

Ruth Briland
53 E. Torrence Rd
Columbus, OH 43214

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Best Fisheries Poster

Jeremy Grauf, University of Nebraska-Lincoln, "Movement of Big River Fish in the Missouri and Platte Rivers" .

*Jeremy Grauf
4650 Bryan Cr.
Lincoln, NE 68506*

Best Wildlife Paper

Ryan Stutzman, University of Nebraska-Lincoln, "Stopover Decisions of Migratory Shorebirds: Are Agricultural Fields and Avian Gas-N-Go?"

*Ryan Stutzman
PO Box 1441
Prosser, WA 99350*



Best Wildlife Poster

Molly Gillespie, Iowa State University, "Bat Activity Patterns at Iowa Wind Farms".

*Molly Gillespie
4915 Todd Drive Unit 11
Ames, IA 50014*

North Central Division Award Solicitation by Phil Moy

The North Central Division of the American Fisheries Society is soliciting nominees for four awards given annually: Most Active Large Chapter; Most Active Small Chapter; Most Active Student Subunit; and Best Communications awards. Submissions for the Meritorious Service and the Fisheries Excellence awards are also considered each year. Each award is fully described below.

Applications for all 2012 awards are due NOVEMBER 9, 2012.

Nomination materials should be sent to Phil Moy, NCD Awards Committee Chair at the following address:

Phil Moy (pmoy@aqu.wisc.edu)

University of Wisconsin
Sea Grant Institute
1975 Willow Drive, 2nd Floor
Madison, WI 53706-1177 USA

Phone (608) 263-5133

Fax (608) 262-0591

Nominations can be sent by email or regular mail.

Most Active Chapter Awards

Two awards will be given to the North Central Division Chapters that have carried out the most active programs of enhancing professionalism and fisheries science, relative to its size and

the geographic distribution of its membership. Most often, members will nominate their own chapter. Nomination materials should include the number of members, names of officers, number and type of meetings, special activities, recruitment activities, and a brief (1 page) description of what makes this chapter an active and important contributor to the NCD, AFS, and fisheries profession. Additional materials of support may also be included.

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Most Active Student Subunit Award

This award will be given to the North Central Division student subunit that has carried out the most active program in developing interest among undergraduate and graduate students in fisheries science and fulfilling the mission of the American Fisheries Society. Most often members will nominate their own subunit.

Best Communications Award

This award will be given to the North Central Division Chapter that has developed the most efficient, useful, and attractive newsletter and website to disseminate information to its members. Both printed and electronic newsletters will be considered. Submissions should include copies of two or three of the Chapter's most recent newsletters and a brief description of

the newsletter, including frequency of publication, readership, and primary means of distribution.

Fisheries Excellence Award

This award will be given to a North Central Division member who has made an outstanding contribution to the fisheries profession. This contribution may be a single activity or a collection of achievements over the individual's career. Former Division members may be nominated if most of their work occurred while they were NCD members. Nominations should include the names and signatures of at least 2 nominators, a brief (1 page) biographical sketch of the nominee, a brief (1 page) narrative of significant contributions made by the nominee, and copies of any additional materials to support the application.

Meritorious Service Award

This award will recognize extraordinary service to the AFS by a NCD member. Nominations may be based on a single outstanding achievement or a variety of service activities, and may include the Chapter, Division, Section or Parent Society level. In the nomination, evidence must be presented that this service has gone beyond the routine and that it has made a genuine and lasting contribution to the betterment of the Society. Nominations should include the names and signatures of at least 2 nominators, a brief (1 page) biographical sketch, a brief (1 page) narrative of significant contributions made by the nominee, and copies of any additional materials to support the application.

This is a real opportunity to acknowledge your fellow professionals along with great work of your Chapter. Please submit nominations for these awards.

Summary of Forest Service National BMP Program by Ted Greier

The Forest Service has instituted a new national program of Best Management Practices (BMP) to protect and improve water quality. The national BMPs are being applied to management activities involving aquatics, chemical use, facilities and non-recreational special uses, wildland fire, minerals, range, roads, vegetation, and water uses.

Historically, the agency has applied BMP's that were developed by indi-

vidual states, but has never had nationally consistent BMP guidelines until now. The Forest Service began developing the national program over ten years ago. Implementation began in 2012 and will be phased in by 2016.

The program has two components: a national set of core Best Management Practices (BMPs) and a procedural guide for monitoring their implementation and effectiveness. The core

BMPs will be incorporated into land management plans and required for individual projects. The monitoring component includes a national sampling design to determine whether the BMPs selected were applied (implementation monitoring), and if the BMPs protected water quality (effectiveness monitoring). Each National Forest unit will have an interdisciplinary team perform the monitoring. Monitoring results will be evaluated at the Regional and National level.

Announcement and Request for Assistance with AFS-Sponsored Assessment of Hatcheries and Management of Aquatic Resources (HaMAR) by Jesse Trushenski and Don MacKinlay

Greetings, fish culturists, fisheries managers, and other fisheries professionals.

For decades, the American Fisheries Society (AFS) has worked with leading aquatic resource scientists and natural resource managers to describe effective roles of cultured fishes in aquatic resource management. Approximately every 10 years, a cross-section of North American resource managers and representatives from AFS Sections and Divisions come together to address and reconcile contentious management issues regarding the uses of hatchery-origin fish. Most recently, this group met under the banner of “Propagated Fishes in Resource Management” (PFIRM), and produced a proceedings publication as well as a brief, guidance document, *Considerations for the Use of Propagated Fishes in Resource Management*. These guidelines were a comprehensive and tied science-based information with political realities of management, and provided the aquatic resources community and decision-makers with a set of consensus-guiding principles for the use of hatchery-origin fish.

Science-based fisheries management findings continue provide new information to strengthen the decision-making of natural resource agencies, and new challenges continue to emerge. The timing is right to assess the impacts of hatchery reform, the increasing importance of imperiled species restoration, as well as a number of other emerging issues in hatchery operation and the uses of hatchery-origin aquatic animals. It is time to set the clock in motion for the next cycle of this process, titled “Hatcheries and Management of Aquatic Resources” (HaMAR), and refine our guiding principles in the light of contemporary knowledge.

As in previous cycles, symposia are being developed to serve as a fact-finding sessions, targeting all current issues of concern related to the use of hatchery-origin aquatic animals. These symposia will be held in conjunction with the AQUA 2013 conference (February, Nashville, TN) and the 2013 AFS Annual Meeting (September, Little Rock, AR). However, we recognize that in the current economic climate, it is unlikely that all stakeholders and partners will be able to attend and participate in these

symposia. We don’t want travel restrictions to result in important issues slipping through the cracks, and so we need your help.

So, what are we asking for?

Below is a link to a scoping survey along with a request to distribute the survey to the ‘fisheries constituency’ you represent, i.e., fisheries managers and biologists in your state or region, hatchery managers and culturists, etc. Please complete the survey and encourage your colleagues to do the same (just forward this message—we want as much stakeholder and partner involvement as possible). We will use your responses in developing the 2013 HaMAR symposia, ensuring all high priority topics are addressed. We also hope that you will consider participating in these symposia.

Access the scoping survey here:
<https://www.surveymonkey.com/s/XNDH3CR>

If you have questions about HaMAR, please contact the Steering Committee Co-chairs, Jesse Trushenski (saluski@siu.edu) and Don MacKinlay (Don.MacKinlay@dfo-mpo.gc.ca).

Updated Version of FWS Fisheries Strategic Plan Recommendations by Nick Schmal

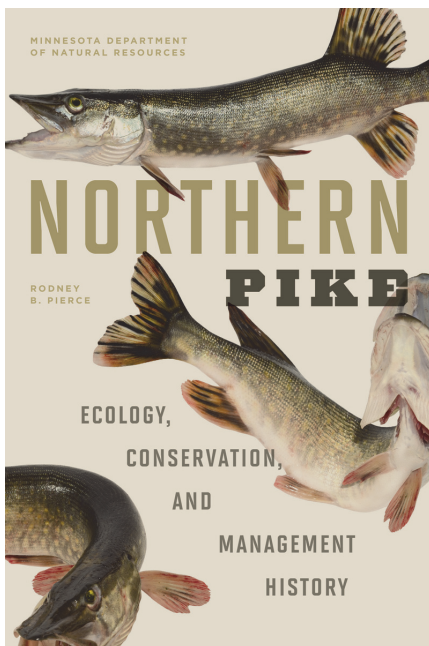
<http://fishplan.org/news/updated-version-fws-fisheries-strategic-plan-recommendations>

The Steering Committee [received excellent input online](#), through several briefings and at the first stakeholder input session at the [AFS conference](#) in St. Paul, MN.

Be a part of the discussion that shapes the future of fisheries.
(<http://fishplan.org/events/upcoming>)

- Meeting: Sportfishing & Boating Partnership Council Meeting
Wednesday, November 7, 2012 (All day) to Thursday, November 8, 2012 (All day)
- Input session: Strategic Plan Stakeholder Input Session at Midwest Fish & Wildlife Conference
Monday, December 10, 2012 - 3:30 p.m. to 5:00 p.m.
- Input session: Webinar with FWS Fisheries Field Staff
Tuesday, January 1, 2013 (All day) to Thursday, January 31, 2013 (All day)
- Input session: Western Association of Fish & Wildlife Agencies Winter Conference
Thursday, January 3, 2013 (All day) to Sunday, January 6, 2013 (All day)

MEMBERS FORUM



The University of Minnesota Press recently published *Northern Pike: Ecology, Conservation, and Management History* by Rodney B. Pierce [University of Minnesota Press | 224 pages | 2012 | ISBN 978-0-8166-7954-6 | cloth | \$40.00], which may become one of those “must have” resources on your book shelf. Rodney B. Pierce has worked as a fisheries research biologist at the Minnesota Department of Natural Resources in Grand Rapids, Minnesota, for more than twenty-five years, specializing in northern pike biology and management. Based on his research in Minnesota, this book is the most complete collection of information to date on the species, for everyone from scientists and conservation biologists to general readers and recreational anglers. Pierce’s study synthesizes the long history of northern pike management, describing recent efforts to better understand and manage this renowned species.

PRAISE FOR NORTHERN PIKE:
"Rodney B. Pierce has successfully tackled the job of documenting Minnesota’s pike management history in the background of the most relevant science. This will be required reading for all the fish biologists who are involved in northern pike management." —Paul Cunningham, Wisconsin Department of Natural Resources.

"Pierce blends interesting information about the ecology, history of fishing, and the historical and current management of northern pike. Avid fisherman will find it a delightful reading experience." —Bruce Vondracek, University of Minnesota

For more information, including the table of contents, visit the book's webpage:

<http://www.upress.umn.edu/book-division/books/northern-pike>

New Technology: Acoustic Telemetry Goes Mobile

by Caroline Mercado

Seattle, July 24, 2012: Driven by the research needs of USGS scientists and others, the latest product for acoustic telemetry for fisheries research has arrived. Over the past decade, fisheries scientists around the world have used HTI acoustic telemetry to remotely track fish behavior with fine-scale 2D and 3D positions. These studies provided a wealth of information about fish passage, survival and behavior. Most often the surveys used fixed

receivers for monitoring site-specific areas (e.g., water intakes, diversions, and hydropower dams). In recent years with increased need to evaluate fish behavior beyond fixed stations, an easy means for mobile surveys became essential.

HTI's new Model 395 Micro Data Logger finished testing this spring at various locations on the west coast. HTI (Hydroacoustic Technology, Inc.)



Photo by FISHBIO

announced its official release of the Model 395 Logger earlier this week. "There are a lot of questions about what happens between fixed acoustic telemetry stations and it's important to know whether or not these fish are surviving...and then what's happening to them," explains Sam Johnston, a Sr. Fisheries Biologist at HTI. "Being able to detect and identify each fish throughout the waterway will help us understand their journey better."

Data loggers are not new in acoustic telemetry. However, there are three new game changers exclusive to the Model 395 Micro Data Logger that make it unique. Beyond its ability to detect and identify hundreds of fish at the same time in real-time, it's now possible to achieve fine-scale 2D/3D tracking of each tagged fish with multiple units. "We're happy with the results and have put the new logger to work in ways we didn't con-

sider before - like testing tags in holding areas between sites and tracking the survey boat's trajectory through the study region," said fisheries researcher Cherylyn Tunnicliffe.

To learn more about this new technology, HTI offers system details and potential fisheries research applications at http://www.htisonar.com/datalogger_Model395.html.

Monitoring Gill Lice and Brook Trout by Matthew Mitro

Wisconsin DNR, in partnership with the River Alliance and Trout Unlimited, seeks the assistance of trout anglers to get a better understanding of the statewide geographic distribution of *Salmincola edwardsii* in Wisconsin. If you would like to help with this effort, please go to wisconsin-tu.org/gilllice for background information on gill lice and the project, a gill lice factsheet, disinfection protocols, and a data entry form (both online and printable).



Normal Gills

What Are Gill Lice?

Gill lice *Salmincola* spp. are a parasitic copepod that only infect *Salvelinus* species such as brook trout *Salvelinus fontinalis*, which is the only salmonid native to Wisconsin streams. The gill lice life cycle begins when egg sacs release nauplii, which immediately molt into the larval first copepodid stage during which they have about 24 hours to find a host. The larval copepods anchor onto the gills of their host and continue development. After several molts, the copepods attain



Salmincola edwardsii infection

maturity and remain permanently attached to a gill arch. For more information, download the Fact Sheet.

How Do Gill Lice Impact Brook Trout?

Gill lice can cause significant physical trauma to the gill filaments, causing deformities that may affect respiration and efficient uptake of oxygen and release of carbon dioxide, ammonia, and other metabolites. Heavily infected brook trout cannot obtain sufficient oxygen when they are exercised, such as when caught by angling. Respiration may be particularly difficult for infected fish during times of high water temperatures and low dissolved oxygen levels. High rates of infection may slow the physiological processes of growth and sexual maturation, which in turn may negatively affect brook trout population growth rates. Gill lice are a parasite specific to brook trout and are not known to infect brown trout.

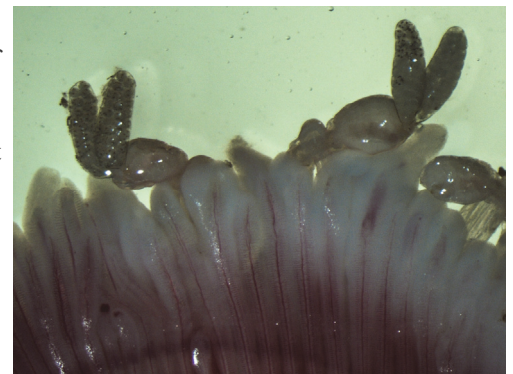
When the egg sacs rupture, larval copepods are released into the water and they must find and attach to a fish within 24 hours or they will die. The larvae molt several times while still attached to the fish before they develop into adult parasites. The entire life cycle is completed in 30-40 days and may be temperature dependent.

How Can You Get Involved?

Participate in our angler-based monitoring program - Simply record your gill lice observations using our Online Survey. Alternatively, you can download a copy of our Offline Data Collection Form.

Help Stop the Spread.

It is becoming increasingly important in the battle against invasive species



Close up of *S. edwardsii*

(not just gill lice) for anglers to become familiar with and follow proper disinfection practices. You can find more information in our Angler Disinfection Brochure.

Aquaculture Drug Update: U.S.

Date: 9 August 2012

Authorization Granted for the Immediate Release of Fish Sedated with AQUI-S®20E under INAD 11-741

Based on a recent request, the U.S. Food and Drug Administration (FDA) has granted amended authorization for the use of AQUI-S®20E, a sedative drug, to allow for the immediate release of freshwater finfish sedated as part of field-based fisheries management activities. The amended authorization comes under the U.S. Fish and Wildlife Service's Aquatic Animal Drug Approval Partnership (USFWS-AADAP) Investigational New Animal Drug (INAD) 11-741. Prior to the amended INAD authorization, all freshwater fish sedated with AQUI-S®20E were required to be held for 72 hours—a withdrawal period impractical for field use. The immediate-release provision is for field-use only; the withdrawal period remains at 72 hours for hatchery use.

FDA approval of an immediate-release sedative for use in fisheries management has been a high priority for the Association of Fish and Wildlife Agencies (AFWA), whose ongoing activities are coordinated by its Fisheries and Water Resources Policy (FWRP) Committee's Drug Approval Working Group. "This amended INAD authorization represents an enormous leap forward in our ability to effectively and safely sedate fish as part of field-based fishery management activities; activities that state and federal agencies and their partners use to restore, recover, protect, and manage fish populations that are important to the 48 million recreational anglers in the U.S., as well as to many others who depend on fish for sustenance and commerce," said Virgil Moore, Idaho Department of Fish and Game Director and chair of AFWA's FWRP Committee.

For more information about aquatic animal drugs, AQUI-S®20E, or to sign-up to participate in USFWS-AADAP INAD 11-741, go to <http://www.fws.gov/fisheries/aadap/home.htm> or contact the USFWS-AADAP INAD Administrator, Bonnie Johnson, at Bonnie_Johnson@fws.gov or 406-994-9905. For further information, please see full AFWA press release at http://www.fishwildlife.org/index.php?section=afwa_press_releases&prid=180

