



Organized in 1990

# VIRGINIA CHAPTER of the AMERICAN FISHERIES SOCIETY

Inland Fisheries and Aquatic Resources of Virginia

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## Inside this issue:

A Few More Words from Your President	1
Sport Fish Restoration Award	2
2005 Treasurer's Report	3
Update on Shenandoah Fish Kills	3
Recent Reports and Publications	4
Job and Fellowship Announcements	4
2006 Annual Meeting Announcement	5

Fall Edition

Newsletter Date: Oct. 31, 2005

## A Few More Words from Your President...

Well, it seems like only a week or so ago I was typing out my thoughts for the Spring Newsletter and advising everyone to have a fun and safe sampling season. As seems typical lately, the year's end is rapidly approaching setting me up for a few Fall Newsletter comments... and lots of data analysis and reporting (plus a few good things that typically occur during fall and winter months). I can say without doubt that the Chapter is as vibrant as it has ever been thanks to the continued strong and capable leadership of our Committee Chairs and diverse EXCOM. I urge everyone to help recruit new members from the entire spectrum of aquatic resource disciplines.

We are in excellent financial status thanks in large part to Chapter members' hard work during the 2005 Spring Meeting and resulting profits (see *Treasurer's Report*, page 3). Thus, the scholarship fund will be available for both graduate and undergraduate scholarships this year. Offering fisheries students free money should be a viable method of recruiting young members and promoting the Chapter. On a related note,

Larry Mohn has been tasked with chairing a new Scholarship Committee, which will look at ways to maximize investment... essentially protecting our investment principle while allowing annual scholarship awards from interest income. Also, production of our new Virginia Chapter pamphlet should be complete soon... consider ways to integrate it into your own outreach activities.

Please mark your calendars for our upcoming Annual Meeting to be held March 15-17<sup>th</sup> 2006 at the Winchester Holiday Inn (the same venue we used several years ago for the Mike Maceina statistics class). The meeting will be co-hosted by members of the West Virginia Chapter and students from the University of West Virginia. As usual, Virginia Tech Chapter members and others will be welcomed. We hope to have a general slate of contributed papers as well as symposia on snakeheads and the recent river fish kills in several states (with emphasis on smallmouth bass) making it an attractive meeting for our neighbors.

So, remember: Do what you can for your Chapter – it works from the bottom up (Van Den

Avyle proverb). Thanks for your attention, and a special thanks to Shelly Miller for her years of service. Shelly is moving on, and I thank her for her hard work on behalf of the Virginia Chapter. We will miss her.

See you in March if not before...

- Your President  
a.k.a. Captain Jerky Kirk

John Odenkirk  
VA-AFS Chapter President  
[John.Odenkirk@dgif.virginia.gov](mailto:John.Odenkirk@dgif.virginia.gov)



**The Virginia Chapter of the American Fisheries Society** is a subunit of the [American Fisheries Society](#). The chapter was established in 1990 to provide fisheries professionals in Virginia with increased access to AFS; encourage the exchange of information among fisheries and other aquatic resource professionals; provide a forum for the discussion, debate, and resolution of aquatic resource issues within Virginia; and serve the Commonwealth by providing expert scientific knowledge to allow for informed decisions concerning the use and development of the state's natural resources.

## Virginia DGIF Recognized by AFS Fisheries Administrators Section and Sport Fish Restoration Program for “Outstanding Development and Management Project of the Year.”

The Virginia Department of Game and Inland Fisheries was recently honored for their innovative efforts in managing sport fisheries. The *Fisheries Administrators Section* of AFS, along with representatives of the Sport Fish Restoration Project, awarded the department their highest accolades for recent efforts in mitigating acidification and restoring a brook trout fishery in Laurel Bed Lake (Russell County).

VA-AFS Chapter member and project coordinator Tom Hampton (DGIF) is quick to point out the strong collaborative effort in this project. Dan Downey and colleagues at James Madison University were integral in the conception, design, and implementation of this project. This award underscores the quality of personnel and the consistently high level of effort among the fisheries community in Virginia. Please extend your well-deserved congratulations to these folks when you see them at the meeting in March. The formal description of the project is reproduced for posterity below.

### Laurel Bed Lake Restoration

Low pH and unbalanced fish populations severely limited fishing opportunities at Laurel Bed Lake, a 133-hectare impoundment in Russell County, Virginia. The reservoir was constructed in 1967 and a brook trout fishery provided regionally unique fishing opportunities during the 1970's. Low pH soon limited productivity and the unauthorized stocking of rock bass provided unwanted competition for the brook trout. Rock bass were

able to reproduce in the low pH (5.0) water and rapidly overpopulated the lake and became stunted. Competition from the rock bass limited growth of stocked trout fingerlings to the point that the put-grow-and-take management strategy was abandoned. In 1996 the lake was drained for structural repairs and biologists seized the opportunity to reclaim the lake's fishery. The objectives were: 1) restore the lake's habitat by increasing pH and acid neutralizing capacity (ANC) to levels that would support a variety of fishes, and 2) establish a fishery that would provide angling opportunities parallel to the physical and aesthetic qualities of the impoundment.

In collaboration with James Madison University, the Department developed a direct liming method for mitigating the low pH water. The method produced rapid and sustained results. The pH in the impoundment remained at or above 6.5 while the inflow remained near 5.0. ANC, which was negative prior to the liming increased to 60 µeq/L. The dosage was increased in 1998 and 1999 and biologist chose to not lime in 2000 to see if the sustained improvements in pH and ANC could persist beyond a year. The pH and ANC remained at suitable levels for two complete seasons and the liming strategy has evolved to applications every other year.

Fingerling brook trout were stocked in 1997 and survival and utilization has been good. Although considerable effort was exerted to eradicate rock bass, they are still present in the reservoir. Smallmouth bass

were stocked in 1998 as a means to control rock bass and a new fishery for smallmouth subsequently developed. Angler surveys indicate that this multi-species fishery has resulted in an outstanding catch rate of 2 fish per hour for all species combined as well as a positive Benefit/Cost ratio for the project. An estimated \$35,575 angler dollars were expended during a 2001 April-June survey period relative to the <\$5,000 cost for liming every other year.

The Sport Fish Restoration program provided the means for restoration of a unique high elevation reservoir fishery through intensive and periodic water treatment (liming), water quality analyses to monitor the acid neutralizing capacity of the lake and stockings to produce quality fisheries for smallmouth bass, rock bass and brook trout. The project benefits extend beyond the Laurel Bed Lake restoration by integrating acidification remediation and multi-species management.



*“This annual awards program helps identify and showcase outstanding fisheries management projects from across the country.”*

-  
Sport Fish  
Restoration  
Project press  
release, 10/05



## Treasurer's Report

As of March 3, 2005, the Virginia Chapter's checking account balance stood at \$2,811.25. From March to late August, debits included donations to the North-eastern Mentorship Lunch and the Martha P. Orth Scholarship Fund, and a 50% down payment for an order of Snakehead t-shirts. Credits during this period included: membership dues, Snakehead t-shirt sales (\$330.00), fish fry proceeds (\$308.00), Continuing Education class registrations (\$600.00), membership dues from the parent society (\$349.56), and

Mid-year profits (\$10,366.62). As of August 26, 2005, the Virginia Chapter's checking account balance stood at \$12,964.68.

In July, past Treasurer, Mike Odom completed the financial details of the Mid-Year meeting. Overall profit from the Mid-year meeting was \$20,233.25, with \$9,866.63 going to the Southern Division AFS and \$10,366.62 going to the Virginia Chapter.

Other chapter assets include three 12-month CDs totaling \$10,000 which mature in December 2005. The CDs represent monies

established for the chapter's scholarship fund. The EX-COM discussed new investment options at the August 29 meeting. As a result of those discussions, the new Scholarship Committee was formed. This committee will be charged with developing an investment strategy which will generate scholarship funds while protecting the capital as much as possible. Larry Mohn was elected chair of this committee.

George J. Devlin  
Treasurer  
[gjdevlin@deq.virginia.gov](mailto:gjdevlin@deq.virginia.gov)

**As of  
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## UPDATE: Shenandoah River Fish Kills (from Steve Reeser, DGIF)

A "chronic" fish kill resulting in the loss of an estimated 80% of the adult smallmouth bass and redbreast sunfish occurred in over 100 miles of the South Fork Shenandoah River between April and July this year. Identical fish kills in the South Branch Potomac and North Fork Shenandoah River preceded this year's incident in 2002 and 2004 respectively. Biologists with the Virginia Department of Environmental Quality (VDEQ) and the Virginia Department of Game and Inland Fisheries (VDGIF) have not been able to determine the cause of the kills in the Shenandoah River system.

The majority of fish lost in the kill were adult smallmouth bass and redbreast sunfish, while other species appeared to be lightly affected. Adult centrarchids broke out in bacterial lesions and began dying following the first significant rain event of the spring. Fish pathologists concurred that these fish were being stressed by other factors and the

bacterial lesions were only a secondary effect.

The good news is that juvenile smallmouth bass and sunfish were unaffected by the kill. One theory is that adult fish were subjected to a combination of natural spawning stress and "unknown" stress that lead to mortality, while juvenile fish did not have the added spawning stress to contend with. Excellent recruitment of smallmouth bass in 2004 will help to rebuild the population. However, due to extremely slow smallmouth bass growth rates, anglers will not see adequate numbers of quality-size fish for many years.

VDEQ and VDGIF formed the Shenandoah Fish Kill Task Force in late July. The Task Force is comprised of individuals representing state and federal agencies, agriculture, industry, riparian landowners, anglers, academia, and citizen environmental groups from the Shenandoah Watershed. The Task Force has identified possible causes for the fish kill and is

in the process of investigating each of the "theorized" sources. Research is currently planned to intensively look at fish health and water quality throughout the watershed.

Virginia Chapter AFS members Don Kain (VDEQ) and Steve Reeser (VDGIF) are co-chairing the Shenandoah Fish Kill Task Force.

For more information, contact::

Steve Reeser  
540-248-9360  
[steve.reeser@dgif.virginia.gov](mailto:steve.reeser@dgif.virginia.gov)



## Draft of Comprehensive Wildlife Conservation Strategy Released

The Virginia Department of Game and Inland Fisheries (VDGIF) recently completed the development of the Virginia Comprehensive Wildlife Conservation Strategy (CWCS). This three-year initiative was the result of a requirement from Congress, tied to each state's receipt of new wildlife conservation funding through the federal State Wildlife Grants program. The Department was also tasked with completing such a document by the Secretary of Natural Resources as an assignment resulting from Governor Warner's 2003 Natural Resources Leadership Summit. The document identifies 925 species of greatest conservation need from all taxonomic groups of wildlife; key habitats that support these species; threats to these resources; conservation actions that address these

threats; and survey, inventory, and monitoring needs. The final list of species of greatest conservation need includes 99 species of fish, 89 species of aquatic mollusks, 61 species of aquatic crustaceans, 146 species of aquatic insects, and 12 other species of aquatic invertebrates, along with terrestrial wildlife.

While the work was directed by VDGIF, the resulting document incorporates considerable input from other scientists from around Virginia and surrounding states via the Taxonomic Advisory Committees, from members of the Internal and External Steering Committees, and from interested members of the public around Virginia. Numerous Virginia Chapter AFS members participated extensively in the development of the Virginia CWCS.

The final document, submit-

ted to the U.S. Fish and Wildlife Service in September for approval, is just over 900 pages in length. A digital version (in PDF format) may be found on the CWCS Web site at:

[www.VAWildlifeStrategies.org](http://www.VAWildlifeStrategies.org)

A CD copy of these files may also be obtained from the Department by sending your contact information to VDGIF at:

[WildlifePlan@dgif.virginia.gov](mailto:WildlifePlan@dgif.virginia.gov)

Questions about the Virginia CWCS may be directed to:

**Becky Wajda**  
Virginia CWCS Project Leader  
(804) 367-8351

or to the e-mail address above.

*"This strategy represents a challenge to each and every Virginian. We cannot follow this new course or uphold our duty to conserve the Commonwealth's biological diversity without the support of our citizens and the financial assistance of our elected officials."*

*-W. Tayloe Murphy, Jr*  
*Secretary of Natural Resources*

*(From the Foreword of the draft Strategy.)*



## Recent / Upcoming Research and Publications of Interest

Odenkirk, J.S. & S. Owens (*in press*) Northern snakeheads in the tidal Potomac River system. *Transactions of the American Fisheries Society*.

Kocovsky, P.M. & R.F. Carline (2005) Stream pH as an abiotic gradient influencing distribution of trout in Pennsylvania streams. *Transactions of the American Fisheries Society* 134: 1299-1312.

Scholten, G.D. & P.W. Bettoli (2005) Population characteristics and assessment of overfishing for an exploited paddlefish population in the lower Tennessee River. *Transactions of the American Fisheries Society* 134: 1285-1299.

Roghair, C.N. & C.A. Dolloff (2005) Brook trout movement during and after recolonization of a naturally defaunated stream reach. *North American Journal of Fisheries Management* 25: 777-784.

Smith, S.M., J.S. Odenkirk & S.J. Reeser (2005) Smallmouth bass recruitment variability and its relation to stream discharge in three Virginia rivers. *North American Journal of Fisheries Management* 25: 1112-1122

## Employment and Scholarship Opportunities

**Trout Unlimited** is seeking a coordinator for its Eastern Brook Trout Conservation Campaign, "Back to the Brookie" ([www.brookie.org](http://www.brookie.org)). A complete description was recently posted to the VA-AFS listserv. For more information, please contact: Brook Trout Campaign Coordinator Search, 1300 North 17th St., Suite 500, Arlington, VA 22209. Fax: (703) 284-9400 Email: [brookiecoordinator@tu.org](mailto:brookiecoordinator@tu.org). Email contact preferred.

**The Southern Division of the American Fisheries Society** is seeking applications for its annual Jimmy Pigg Memorial Outstanding Student Achievement Award. The award is presented annually to "recognize university students who are truly outstanding in research, education and professional endeavors." Award winners are presented with a plaque at the SD-AFS annual Mid-Year meeting, and are awarded funds to cover travel to the meeting as well as a one-year membership to the American Fisheries Society. For more information on application / nomination procedures, please see the online description at [www.sdafs.org/wwstreams/scholar06.htm](http://www.sdafs.org/wwstreams/scholar06.htm).

VIRGINIA CHAPTER,  
AMERICAN  
FISHERIES SOCIETY

**Attention Graduate / Undergraduate Advisors:**  
I really want to hear from you about your students' research projects. I did not receive a single recommendation for contributions to the "Student Research Corner." Please drop me a note if one of your students is working on, or has recently completed, an interesting project or study. The newsletter provides an excellent opportunity to communicate results and increase the exposure of their research.

Direct all communications regarding the newsletter to:

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Visit us on the Web at:  
<http://faculty.virginia.edu/vcafs/>



# Co-Hosted by the Virginia and West Virginia AFS Chapters:

## CALL FOR PAPERS

### Virginia Chapter AFS 2006 Annual Meeting

The Virginia Chapter of the American Fisheries Society would like to invite you to join us in Winchester, VA at the Holiday Inn for the 2006 Annual Meeting, 15-17 March 2006. Student and professional oral presentations and poster submissions are highly encouraged. General fisheries and aquatic sciences talks are welcome and we will have two **special symposia** dealing with **smallmouth bass management** challenges due to human impacts on aquatic habitat and updates on the **northern snakehead** introduction. The smallmouth symposium will focus on recent multi-state fish kills in popular smallmouth rivers. Please mark your calendar and join us in Winchester in March.

#### Schedule of Events:

**Wednesday 15 March** – Fisheries Management Continuing Education Workshop (1-5 pm). Small welcome social in hospitality suite.

**Thursday 16 March** – Symposia and Technical sessions. Business meetings to follow talks. Poster session and social at hotel.

**Friday 17 March (ending at noon)** – Technical and poster sessions.

#### Registration information:

**Meeting registration fees:** \$35 professional / \$10 students to be collected at the meeting.  
**Hotel:** \$60/room with a block of 50 rooms. Holiday Inn, Winchester. For reservations, call 540-667-3300 and tell them it is a room for ASC. Cutoff for room reservations is 1 March 2006.

#### Continuing Education Workshop:

**“Use of FAST (Fishery Analysis Simulation Tool) model in fisheries management.”** Presented by VDGIF biologists. Open to students and professionals for \$20. To reserve a spot, contact Steve Owens at [Steve.Owens@dgif.virginia.gov](mailto:Steve.Owens@dgif.virginia.gov).

#### Submission Procedures for Presentations and Posters:

Presentations will be scheduled for 20 minutes (15-min presentation and 5 min for questions) which will be strictly enforced. Media for presentations is Microsoft PowerPoint only. Abstracts should be a 200-word (or less) statement of objectives, principal results and conclusions. All abstracts must be submitted to Dan Michaelson electronically to:

[Dan.Michaelson@dgif.virginia.gov](mailto:Dan.Michaelson@dgif.virginia.gov)

Abstracts for symposia and contributed presentations, as well as posters are due by:

## 15 January 2006.

If your presentation is part of a symposium be sure to acknowledge this on the abstract submission.

For additional information contact:  
**Dan Michaelson**

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(434) 392-9645