

**Minutes of the AFS Southern Division Trout Committee Meeting**  
**11 June 2012**  
**Frostburg State University, Maryland**

The 2012 meeting of the Southern Division of the American Fisheries Society Trout Committee was called to order at approximately 0800 by Jake Rash, chair. In attendance: Jeb Wofford (NPS), Matt Kulp (NPS), Steve Resser (VA), Gary Grossman (UGA), John Damer (GA), Dan Rankin (SC), Steve Moore (NPS), Casey Weathers (PSU), Scott Cornett (NY), Jeff Williams (AR), Doug Besler (NC), Chris Wood (NC), Mike Shingleton (WV), Tom Whelan (MO), Tom Oldham (WV), Seth Coffman (TU), and Scott Sellers (USFWS).

Following self-introductions of all those present, Chair Jake Rash addressed general housekeeping items regarding the East Coast Trout Management and Culture Workshop (East Coast Trout) and passed around an attendance list. Doug Besler agreed to assist with recording meeting minutes.

Chair Jake Rash determined that the required quorum of ten voting members was present.

**Old Business**

Chair Jake Rash stated that the minutes of the 2011 meeting in New Germany State Park, MD, had been distributed following the meeting. Comments and revisions had been received and incorporated into the minutes. Steve Moore made a motion to accept minutes as written and Gary Grossman seconded. The motion passed unanimously. 2011 meeting minutes will be posted to the Committee's website.

**Treasurer's Report:** Jeff Williams (Treasurer) read the Treasurer's report and provided copies to all members. The balance brought forward from 29 March 2011 was \$859.28. Income in the form of donations to East Coast Trout totaled \$650.00 for the year, and total disbursements during the year totaled \$320.74 (\$74.74 in checks for the account and \$246.00 East Coast Trout staffing shirts). This resulted in a balance as of 8 June 2012 of \$1,188.54. A motion to accept the report was made by Steve Resser and seconded by John Damer. The motion passed unanimously.

**Update on Stream Sample Survey:** Steve Moore led the discussion on behalf of Jim Habera. Following discussions at New Germany State Park, Steve Moore and Jim Habera initiated a survey of Committee members to assess how quantitative survey data are being collected. Handouts containing summary data of this survey were distributed. Discussion of survey results and Committee member sampling techniques followed.

It was suggested that it would not be feasible to proceed with a standardized sampling protocol given the lack of consensus across management agencies. Thus, it was determined that an update to the Committee's sampling protocol document is not needed at this time.

Discussions followed regarding the intent of sampling procedures and how to maximize effectiveness. The Committee determined that it would be useful to know the type and amount of effort needed to minimize manpower and maintain an effective and accurate monitoring plan. It was suggested that this notion serves as a larger component of discussion at the 2013 Committee meeting. To facilitate this discussion in 2013, a follow-up effort to Jim Habera and Steeve Moore's original survey will occur to capture management agencies specific monitoring objectives.

It was also suggested that we think about smaller scale consistencies (i.e., regional/adjacent managers) in lieu of the Committee as a whole. By doing so, we could potentially reach consensus on monitoring resources within a reduced spatial scale.

The Eastern Brook Trout Joint Venture (EBTJV) was identified as a potential avenue to vet the monitoring issue. Specifically, this need will be presented to the EBTJV's Science and Data Committee.

Additionally, Committee members will reach out to the scientific community to see how others outside of the Committee are addressing this issue. This information will be compiled and shared at the 2013 Committee meeting.

**MICROFISH Update:** Matt Kulp stated that Jack VanDeventer has been working on MICROFISH version 4 and that it should be completed by end of 2012. The new version would be available for a license fee of \$150. The updated version will contain several additional tools to assist resource managers.

Program Capture was discussed as an alternative. It was noted that Capture has a steep learning curve, but it is free, calculates population estimates, and provides confidence intervals.

### **New Business**

**Trout Committee Member List Update:** Chair Jake Rash passed around a member list for members to make any needed corrections. Specifically, members were asked to verify that State Fish Chief appointments are accurate. The updated member list will be provided to leadership of the Southern Division of the American Fisheries Society.

**Nomination and Election of New Trout Committee Officers:** Chair Jake Rash indicated that Matt Sell (MD) will be the new Chair. A motion to nominate Matt Kulp as Chair-Elect was made by Steve Moore, seconded by Jeb Wofford, and approved unanimously. Jeff Williams will continue his appointment as Treasurer.

**2013 Trout Committee Meeting/Tentative Dates:** Discussions were held on where to hold the next Committee meeting. A motion to hold the 2013 Committee meeting in conjunction with the 2013 Southern Division American Fisheries Society's Spring meeting in Nashville, TN, was made by Gary Grossman, seconded by John Damer, and approved unanimously.

### **Roundtable Discussion**

*Arkansas – Jeff Williams –*

AGFC is experiencing some hatchery issues that could impact production. The Jim Hinkle/Spring River Hatchery is the only state-owned hatchery that rears trout in Arkansas. This hatchery is located on the Spring River below a small dam and is supplied with water from the small impoundment above the dam. Flooding in 2008 damaged adjustable gates at the top of the dam resulting in a lowered pool elevation and reduced inflow to the hatchery. That coupled with current drought conditions have drastically reduced the amount of water available to rear trout. Budget constraints along with the condition of the ageing dam have hampered efforts to repair the damaged gates.

A couple of years ago zebra mussels were found in Bull Shoals Reservoir, which is the location of AGFC's Pot Shoals Net Pen Facility. This is one of three facilities in Arkansas that rears fish to catchable size in nets suspended from floating pontoons anchored in the reservoirs. Trout are only raised during the colder months and catchable-sized catfish are reared the remainder of the year. Following the discovery of zebra mussels in Bull Shoals all stockings from Pot Shoals were treated with a two-part treatment of formalin and potassium chloride to kill the zebra mussel veligers. Recently, however, research conducted by USGS suggests that this treatment may not be as effective as originally thought and that the veligers might recover once they are returned to untreated water. Given the uncertainty in the effectiveness of treatments, all stockings from Pot Shoals have been suspended. Fish currently being raised at Pot Shoals will be released into Bull Shoals Reservoir, but the future of Pot Shoals is uncertain. Pot Shoals currently provides only about 75,000 trout so the impact to overall Arkansas trout production will likely be small. However, with the current threats to federal hatchery funding the impact could be greater if production from the federal hatcheries is reduced in any way.

In a continuing effort to reduce the potential for spreading invasive species, AGFC's Trout Management Program is replacing the carpeted bunks on all work boat trailers with a fiberglass-reinforced composite material. Reports from biologists in Missouri that have switched to this material for their trailer bunks have been favorable.

In 2006, minimum flows were authorized for the tailwaters below both Bull Shoals and Norfolk Dams. The target minimum flow for Bull Shoals is 800 cfs while the target at Norfolk is 300 cfs. Minimum flow implementation at Norfolk will be through a 42-inch siphon tube that has been constructed through Norfolk Dam and should begin September of this year. Minimum flow at Bull Shoals can be run through an existing turbine so no major dam modifications are necessary. However, AGFC is responsible for relocating or modifying facilities on Bull Shoals Lake that might be impacted by the higher water level resulting from the reallocation of storage. Given the scope and cost of this work it was spread out over two years, but minimum flow at Bull Shoals is expected to begin spring 2013.

AGFC's Trout Management Program is continuing its evaluation of the fingerling McConaughy strain of rainbow trout in an effort to get better growth than currently observed in domestic strain catchables. Paul Port will be giving a presentation on this work at the East Coast Trout Workshop.

Finally, later this year the Trout Management Program will be conducting a growth and mortality study on the tailwater fishery below Greers Ferry Dam. Although Greers Ferry is home to Arkansas' only completely self-sustaining brown trout population and the former world record for this species, there is surprisingly little known about this population. This information will be used to evaluate current management strategies and revise the existing management plan for this fishery.

*Georgia – John Damer –*

### **General Updates**

GADNR workforce has shrunk. Keefer, Beisser, Probst, and Thompson have all retired without positions being filled. State has consolidated seven Fisheries regions into five, reducing administrative positions while trying to keep field positions. Trout management activities formerly spread across three regions. Now, all trout management activities are under one region (Region 1). No changes to number of trout stocked (1.1 million).

### **Chattahoochee River Brown Trout Stocking Moratorium**

Small, wild brown trout had been observed for years in the Buford Tailwater. Discontinued brown trout stocking in 2005 to determine if fishery could sustain itself. Moratorium had no significant impact on the population, and the only effect on anglers was an increase in C&R. See 2011 SEAFWA paper or upcoming ECT presentation for details. SEAFWA link:

<http://www.seafwa.org/proceedings.php?article=77201&key=chattahoochee&page=1#details>

### **Chattahoochee River Brown Trout Study**

The field portion of a 14-month study on brown trout population dynamics in the Lanier tailwater (Chattahoochee River) was completed in May. This study used VI-Alpha tags from Northwest Marine Technologies to track the growth of individual fish because we have been unable to reliably age fish via otoliths. We tagged and recaptured fish ranging from 150 mm to 10+ pounds, so hopefully we'll have a nice, robust estimate of annual growth. We also looked at seasonal diet composition and found zero movement between sites (four sites, 5-8 miles between each site). Data analysis is currently underway.

### **Toccoa River Trout Study**

Stocked tagged rainbow trout from March to November 2009 in the Toccoa River tailwater, Georgia. Data from electrofishing and angler recaptures were used to assess mortality, growth, condition, and dispersal of stocked rainbow trout. Total annual mortality was high ( $A = 96.3\%$ ). Annual angler catch rate was moderate but most trout caught were released. As a result, angler harvest was only 12.7%. Growth of stocked trout was slow (5.0 mm/mo.), and stocked trout remained close to their stocking site. Body condition declined significantly between stocking and recapture. Slow growth and poor condition of stocked trout suggest that the Toccoa tailwater's trout community was at or near carrying capacity. The apparent high density of stocked trout may contribute to low survival over the first year post-stocking. One hundred large (>356 mm TL) resident rainbow trout and brown trout were tagged onsite in the Toccoa River in 2009. Growth of resident trout was higher than stocked rainbow trout (9.0 mm/mo.), and

resident trout had much higher body condition. Although low sample sizes prevented estimation of total mortality, electrofishing catch rates suggest total mortality of resident trout was low. Differences in hatchery and resident trout performance are attributed to competitive advantage and landowner feeding.

### **Blue Ridge Dam Repairs**

In 2010, TVA initiated the Blue Ridge Dam Rehabilitation Project. The objectives of the project were to repair the penstock and stabilize the intake tower and both faces of the dam in the interest of dam safety. TVA drew down to an elevation approximately 66 feet lower than normal summer elevation and held that level for roughly 6-months. During the drawdown period in 2010, water temperatures as high as 26.4°C (79.5°F) were recorded in the tailwater. Water temperatures in the tailwater as measured at the dam remained above 22°C (71.6°F) for 41 consecutive days. A total of 347 trout were collected during the July 2010 sample, while only 57 trout were collected during the October sample. This represents a decline in CPUE of 84%. Mean  $W_r$  declined significantly (96.5 to 80.2) from July to October. High sediment loads and temperatures continued to impact the fishery into 2011. Restocking efforts have been very successful in improving catch rates (angler and DNR), but large fish will need time to grow/recover. Recent “ground movement” and associated project impacts mean that the 2012 season may also be impacted by water quality.

### **Brook Trout Habitat**

We are completing our sixth and final year of a brook trout habitat project. Over the six-year period, we will have installed 335 structures in 32 streams. Structures are made of logs and primarily consist of wedge dams and channel constrictors with a few cover logs tossed in for good measure. In addition to the habitat work, we are tracking annual population abundance and habitat changes in each structure area relative to an upstream reference area for 29 streams over a five-year period. So far, the data revealed increased adult brook trout abundance in the structure areas relative to reference areas. We are also monitoring pH and ANC in representative brook trout streams. We documented a major decline in pH during 2010 but pH values returned to normal by 2011. Annual progress reports are available upon request. Interested parties can email Anthony Rabern (anthony.rabern@dnr.state.ga.us) for an electronic copy.

### **Impacts of Hemlock Woolly Adelgid**

The spread of woolly adelgids in our Eastern Hemlock stands has continued rapidly. We anticipate a measurable reduction in the streamside overstory canopy as well as a substantial increase in the abundance of large woody debris as infected trees die and eventual fall.

### ***Great Smoky Mountains National Park – Steve Moore and Matt Kulp –***

Great Smoky Mountains National Park (GRSM) staff continues to work on stream acidification issues related to the Total Daily Maximum Load developed by the TN Department of Environment and Conservation. This document list 41 miles of 12 streams as failing to meet fish and aquatic life criteria due to low pH. Park staff has contracted with Dr. Charles Driscoll, Syracuse University to model water quality data to determine historically what ANC levels were and determine how much the deposition of sulfates ( $SO_x$ ) and nitrates ( $NO_x$ ) must be reduced for streams to recover to levels that do not violate Clean Water Act criteria. Preliminary results

indicate that reductions in SO<sub>x</sub> deposition will not result in much recovery and that NO<sub>x</sub> deposition must be significantly reduced before improvements in water quality are seen. GRSM staff is planning to host a meeting with air, water and fisheries staff from surrounding states and federal land managers to share the results of Park monitoring. Hopefully one outcome of this meeting will be the development of a regional picture of water and air monitoring programs and the impacts to sensitive mountain streams.

Park staff continues to monitor approximately 16 brook trout streams annually to assess population dynamics. In June and July the Lynn Camp Prong brook trout restoration project will be evaluated to determine the success of the 2011 treatment and survival and reproductive success of introduced brook trout.

GRSM will host a training session on the use of the Index of Biotic Integrity (IBI) for monitoring larger streams in July 2012. This method may be used in the future to evaluate the health of large stream fish communities.

*Maryland – Alan Heft –*

*Missouri – Tom Whelan –*

A ban on felt-soled wading boots went into effect to help prevent the spread of invasive species. Trout production has been hampered by limited rainfall and low water levels. Strain evaluations are underway for trout used in put-grow-take fisheries.

*North Carolina – Jake Rash –*

#### *Trout Distribution*

NCWRC trout distribution records date back to the late 1970s, but not all of the North Carolina's coldwater resources have been inventoried. NCWRC continues to work to complete its initial round of trout resource inventory work. Although this effort focuses upon identifying the State's brook trout populations, wild rainbow and brown trout populations are also documented. To date, over 600 brook trout populations have been identified. In 2012, NCWRC will seek to finish initial sampling efforts and revisit legacy data to maintain current records.

#### *Brook Trout Genetics*

NCWRC has been collecting genetic information for the State's brook trout in conjunction with trout distribution efforts. Prior to 2011, a non-lethal muscle biopsy was used to obtain tissue for allozyme analysis. Results from genetic testing indicate 38% of populations are of Southern Appalachian origin, 10% are of northern origin, and 52% are of mixed genetic origin. In 2011, the NCWRC began obtaining genetic information via the use of microsatellite DNA analysis. Currently, the NCWRC is working with Dr. Tim King, USGS, to analyze approximately 7,000 individuals from almost 400 populations across North Carolina with this technique. This approach will help to provide further insight regarding the State's brook trout and develop a genetically-based restoration framework.

#### *Trout Management Plan*

In 1989, the NCWRC adopted a trout management plan that defined strategic goals for managing the State's trout resources. Since that time, the NCWRC has conducted biological and socioeconomic research to inform trout management. To craft revisions to its initial plan, the NCWRC used this research to gain information from trout angling constituents and management partners to assist with identification of critical program areas and specific goals to support each area. In addition, the NCWRC held five focus group meetings with 42 trout anglers to receive their thoughts regarding trout management. Selected participants from each of the five focus groups were asked to serve on an angler advisory committee to provide further input as the NCWRC refined program areas and goals. As a result, five critical program areas (trout management, resource protection and habitat enhancement, research, angler access, and education and outreach) and specific goals for each area were identified. NCWRC will seek to implement its new plan in 2012.

#### *Eastern Brook Trout Joint Venture*

NCWRC has continued to be actively involved with the Eastern Brook Trout Joint Venture (EBTJV). Currently, Doug acts as Vice-Chair of the EBTJV Steering Committee and Jake serves as the Chair of the Conservation Strategy / Habitat Subcommittee.

#### *Long-term Trout Monitoring*

In 2012, the NCWRC will initiate efforts to obtain routine data on wild trout populations. Initial long-term monitoring efforts were completed in 1996; however, recent data are desired to gain a greater understanding of wild trout population dynamics in waters managed by the NCWRC. As appropriate, the NCWRC will continue to seek to partner with fellow resource agencies to develop more robust data sets.

#### *Persistence and Movement of Stocked Trout*

NCWRC is working with North Carolina State University to investigate the persistence and movement of stocked trout. NCWRC manages approximately 1,000 miles of lentic resources under Hatchery Supported and Delayed Harvest Trout Water classifications. These fisheries are managed via intensive, seasonal stockings of catchable-size trout. Anglers and managers perceive that catch rates significantly decline through time following a stocking event. This trend is expected in Hatchery Supported Waters, where harvest is encouraged; however, declining catch rates are also observed in Delayed Harvest Waters during the period when harvest is not permitted. Increased understanding of stocked trout movement and survival after stocking events will allow managers to maximize their efforts and the resource's potential.

#### *Contribution of Stocked Brown and Rainbow Trout in Apalachia Reservoir*

Currently, Apalachia Reservoir supports cool- and warm-water species but does not provide any significant recreational fisheries. Apalachia Reservoir has suitable trout habitat year-round and a clupeid forage base. Thus, the impoundment is a candidate for put-grow-and-take trout stockings and has the potential to produce large fish. NCWRC will evaluate the best size and species of trout for put-grow-and-take stockings in the impoundment.

#### *Evaluation of Advanced Fingerling Brown Trout Stockings in Bridgewater Tailrace*

NCWRC has worked to establish a put-grow-and-take brown trout fishery in Bridgewater Tailrace since 1995. These efforts have been successful in establishing a fishery; however,

recent NCWRC surveys and angler reports indicate that success has been intermittent. Long-term water quality data suggests that thermal bottlenecks in the system may limit trout survival. Alterations to the hydropower facility regulating this reach will allow the NCWRC to explore an alternate management regime for Bridgewater Tailrace: stocking approximately 10,000 advanced brown trout fingerlings (180–205 mm total length) following the period of a potential thermal bottleneck.

### ***Shenandoah National Park - Jeb Wofford –***

Shenandoah National Park has provided several 20-yr data sets to the USGS Leetown Science Center for analysis.

A new regulation requires that fishing guides obtain a permit to guide within the Park. The Park is continuing its analysis of brook trout genetics.

Wildlife cameras are being used to assess usage of selected waters.

### ***South Carolina – Dan Rankin –***

South Carolina has undergone a comprehensive revision of all fisheries regulations – new regulations become effective 1 July 2012. FERC relicensing continues on lakes Murray and Jocassee. Evaluations triploid brown trout are ongoing. Additionally, the chop-and-drop habitat improvement technique was evaluated in context of impacts to anglers.

### ***Tennessee - Jim Habera (provided via e-mail) –***

1. A new round of brook trout distribution surveys (lower limit in each stream) began in 2011 to update the previous surveys conducted during the 1990s. Currently, 41 of 115 streams (36%) have been completed. No change was detected in 13 streams, gains (0.1 to 2.3 km) occurred in another 13 streams (10.9 total km), and 15 streams (37%) sustained losses of 0.1 to 7.1 km. The losses totaled 18.4 km, but much occurred in one stream (7.1 km) that previously had a long sympatric population dominated by rainbows. Interestingly, the rainbows have now been largely replaced by brown trout in the lower part of this stream. If this outlier is disregarded, the net change for the other 40 streams is a loss of 400 m. Although the small brook trout populations in three streams have apparently been completely lost, brook trout have reoccupied the entire lengths of two other streams still occupied by rainbows (adding 3.2 km of distribution), as well as ~600 m of mainstem joining them, thus reconnecting this meta-population.

2. Completion of TN's brook trout genetic inventory is underway. Nine populations remain to be evaluated using microsatellite DNA. Tissue samples from one population have been obtained to date and more will be collected during 2012.

3. The Sycamore Creek brook trout restoration project will continue in 2012. This is a cooperative effort (TWRA, USFS, NPS) to re-establish southern Appalachian brook trout in a relatively large stream (3<sup>rd</sup> order, ~5 km long). A third thinning effort in the lower portion will be completed in 2012, then brook trout will be introduced into this area. Attempts to rear

southern Appalachian fish at the Tellico brook trout hatchery for use in this project have met with limited success so far (187 fry produced from 2900 eggs), but additional work will be done in 2012 address some of the problems.

4. A brook trout restoration project is being for two streams in the Nolichucky watershed (Unicoi County), which currently has no truly native southern Appalachian populations in TN. This would be a cooperative project with TU and would initially involve determining if there are any water quality issues (e.g., low pH) that might prevent or limit successful re-establishment of brook trout (one stream has been devoid of fish for several decades).

5. Since establishment of a 14-20 in. protected length range regulation (slot limit) on the Norris tailwater (Clinch River) in 2008, electrofishing catch rates (fish/h) for fish in the slot (primarily rainbows) have increased dramatically, from 3.5 in 2008 to 72.9 in 2012, which represents 40% of the catch rate for all trout  $\geq 178$  mm (7 in.). The catch rate for “slot” fish averaged 20 fish/h during 1996-2007 and never exceeded 40 fish/h. Brook trout (stocked since 2007) continue to provide a fishery, although none over 13 in. have been captured during annual monitoring (anglers have reported catching fish up to 16 in.). Electrofishing catch rates have averaged 4.4 fish/h and the current management plan objective is 5 fish/h.

6. Changes have been proposed for TN’s set of specially-regulated wild trout streams: drop N. and S. Forks of Citico, Gee, and Wolf creeks, eliminate the 9 in. minimum size limit, and raise the creel limit from 3 to 5 fish (gear restrictions remain). Also drop the reduced brook trout creel limit (3 fish) on six streams and eliminate the statewide 6 in. minimum size limit for brook trout. These changes would become effective in March 2013.

#### ***Trout Unlimited – Seth Coffman –***

Continue work on stream habitat restoration, and TU has hired a stream habitat biologist. Continue to conduct work on spring creeks via riparian buffer enhancement. Also, the St. Marys liming project is continuing.

#### ***United States Fish and Wildlife Service – Scott Sellers***

Efforts are underway to rear brook trout at Tellico Fish Hatchery. Less than 200 fingerlings have survived thus far.

#### ***University of Georgia – Gary Grossman –***

Long-term data sets on fish populations within Coweeta Creek, NC, are being maintained and analyzed. Research is showing that density-dependent mechanisms are influencing brook trout populations. Additionally, work on microhabitat use of fishes is ongoing.

#### ***Virginia – Steve Reeser –***

- New Bureau of Wildlife Resources created in VDGIF (August 2010). All trout programs handled by the Coldwater Stream Science Team. Steve Reeser is the Team Lead for VDGIF.
- Monitoring coldwater stream resources: Since the 1970's VDGIF has monitored the Commonwealth's coldwater streams through qualitative monitoring on a 7-10 year rotation. We have an extensive database with over 800 classified wild trout streams. However, while we have a great handle on the location of our wild trout resources we only can use this data for presence / absence inferences. VDGIF has been working with Mark Hudy (USFS/JMU) in looking at our wild trout resources at the population (patch) level, and then re-classifying these streams. This is something that Mark is working on with a finer-scale assessment of eastern brook trout for the EBTJV. We plan to use the "patch" designations and new classifications to help us develop a monitoring plan that helps us collect more useful data in regards to the status of our wild trout populations. We also plan to do some genetic viability assessment of some of these wild trout populations in 2012, as a new way of determining the "strength" or robustness of our wild trout populations.
- VDGIF began a long-term coldwater stream temperature monitoring project in 2011. Currently we have HOBO thermographs placed in 72 different streams across western Virginia. While there was no defined statistical method used in stream selection, streams were selected based on several variables: elevation, latitude, watershed land-use, stream order, groundwater influence, and spatial coverage. We also wanted some streams where we had extensive fish, macro-invert and WQ data. The majority of the streams in the project are coldwater, but a few are considered warmwater. Streams in the SNP are also planned to be included into the program.
- VDGIF has been stocking increased numbers of triploid trout (of all three species). We have two pressure chambers and our Paint Bank Hatchery Manager, Brian Beers, has been "tweaking" our procedures to get higher % of triploid fish. While VDGIF does not yet have a policy on the use of triploid trout, we are focusing on using them in waters that flow out of Shenandoah National Park, watersheds where SBKT are found, or streams with wild BKT populations where we are stocking hatchery fish.
- Eastern Brook Trout Joint Venture Projects: Four streams were selected for introduction or re-introduction of brook trout in an effort to restore or expand brook trout populations in Northern Virginia as part of the EBTJV. Garth Run and Kinsey Run (Madison County) historically had wild brook trout populations that were extirpated as a result of the 1995 Madison County floods. Riparian cover has gradually returned; and as a result, suitable habitat and water quality are now available to support salmonids. One hundred wild brook trout of various sizes were collected from the Conway River and transplanted into both Garth Run and Kinsey Run during September of 2008. Brook trout were present in all four streams when sampled in June 2011 – 2 years post introductions. Catch rates (# brook trout/100 m) varied and remained low compared to those of the initial survey

(June 2009) for most streams. Garth Run (0.66), Sweet Run (1.14), Wildcat Hollow (3.87), and Kinsey Run (15.20). Sweet Run, Wildcat Hollow, and Garth Run all displayed a negative trend for catch rates over time (June 2009 – 2011), while Kinsey Run remained steady. A habitat assessment determined that Wildcat Hollow and Garth Run (middle reach) needed additional brook trout refuge under low flow or drought conditions. Habitat structures were installed summer 2011. Little Tumbling Creek in SW Virginia was recently limed and triploid brook trout were stocked. The plan is to introduce SBKT to this stream when an adequate source of hatchery SBKT can be obtained. BKT were extirpated from the stream in the past 25+ years due to acid deposition. More in-stream habitat work is being completed in North River on the GW National Forest. This work is enhancing summer habitat for wild brook trout.

- VDGIF started stocking steelhead rainbow trout in the Jackson River / Lake Moomaw in western Virginia in fall 2009. Three cohorts of fish have been stocked. Stocking have been split into fall and winter stockings. Fish have been stocked at 8 different locations in upstream tributaries and directly in the reservoir. All fish have been marked with NMT wire tags and also had the adipose fin removed. Tag location is being used to help evaluate stocking survival and movements based on stocking location and time of year. Winter 2011-2012 we were expecting to see some fish make spawning runs, but that has not happened. Lots of variable to consider. Contact Steve Reeser for more details. We plan to stock again in October 2012 and Feb. 2013.
- VDGIF is working with Dr. Steve McMullin of Virginia Tech in helping us develop a stocked trout management plan.
- VDGIF now has interactive GIS maps on our website where anglers can locate all the wild trout streams in our Coldwater Stream survey database and also the locations of all stocked and special regulation trout waters. <http://www.dgif.virginia.gov/gis/google-earth-files.asp> One needs Google Earth to run. Click on Trout Waters when you get there. We plan to make it more user friendly in the near future.
- The Jackson River Tailwater is in the news again in regards to a stream access court case. The case of a riparian landowner against two anglers for wade fishing in the navigable stream was thrown out of criminal court, but is still in civil court. Check with Reeser for details.

### ***West Virginia – Mike Shingleton –***

Streams are 30–50% below normal flows. Upper Shavers Fork restoration project is continuing. A series of step pools have and new culverts have been added for brook trout passage. This project relies upon railways for access and material transfer. Limestone sand is being applied to 344 mi of streams. Also, on 1 Jan 2013 West Virginia will offer a senior license to anglers for a one-time fee of \$15.

### **Meeting Adjournment**

A motion to adjourn was made by Mike Shingleton, seconded by Steve Moore, and approved unanimously. The meeting was adjourned by Chair Jake Rash at approximately 1100.