

**Minutes of the
AFS Southern Division Trout Committee Meeting
Lake Cumberland State Resort Park, Kentucky
May 13-14, 2002**

The meeting convened at 9:00 a.m. on Monday, May 13 with the following persons present: Lee Keefer (Chairman), Mike Kruse (Chair-Elect/Secretary), Matt Kulp (Treasurer), Jim Borawa, Jarrad Kosa, Brett Billings, Stephen Reeser, Frank Fiss, Jim Habera, Darrell Bowman and Dave Dreves.

Treasurer's Report: The committee has a total account balance of \$5,690.11. The funds have been sent to Matt Kulp who will open a local account and handle future transactions for the committee.

Old Business: It was agreed at the 2001 meeting to add the Listserver Chair as an official committee member. The Summary of Procedures needs to be updated to reflect this decision.

New Business: Some committee members did not receive copies of last year's meeting minutes and there was much discussion of how to insure that this does not happen again. Guidelines for preparation in the Summary of Procedures were reviewed and deemed sufficient for future committee operations. Jim Habera recommended that a list of meeting attendees be added to all future minutes, but there was no official action taken on this suggestion.

Lee Keefer agreed to post a list of current committee members to the listserver for review by all current members.

Jim Borawa suggested that the computer program "Microfish 3.0" needs to be updated to a windows-based program. It is currently in a DOS format and is rapidly becoming unusable on many computers. Frank Fiss agreed to contact the computer users section of AFS to determine the status of the issue and what possibilities might exist for updating the program.

Several members suggested that a small symposium on data management, archiving and storage might be useful to have at next year's meeting.

The committee discussed the need/desirability of having a website for posting business meeting minutes, past projects, details of current projects, future meetings, etc.

Standardized sampling guidelines developed by the committee need to be reviewed. Recent criticisms of typical southeastern sampling methods (i.e. 3-pass depletion) demand that the guidelines be reviewed and possibly edited. Jim Habera agreed to send the 1992 guidelines out to the committee. In a related discussion, the committee

suggested that sampling efficiency in southern Appalachian streams may be greater than in some other geographic areas, and some summary of the available data would be useful. While no future action was identified on this subject, a typical southeastern AC electrofishing unit has been sent to Dan Schill in Idaho for testing in a low conductivity stream, and possibly some additional information on efficiency will be collected.

Election of Officers: Jarrad Kosa nominated Steve Reeser for Chair-Elect. Darrell Bowman seconded the nomination. Steve accepted the nomination pending approval by his employer. He was subsequently elected Chair-Elect by unanimous vote of all present.

Mike Kruse becomes committee Chair at the close of the meeting.

The spring 2003 meeting of the Trout Committee will be held in Georgia, tentatively in late-March or early April.

Roundtable Discussion

Georgia (Lee Keefer): Several streams will be added to the list of streams open to year-round fishing in 2003. The delayed harvest program has increased to four streams, Smith Creek, Amicalola Creek, a 4-mile section of the Chattahoochee River tailrace, and a 3-mile section of the Chatooga River will open in November. This program has been very popular with anglers. A total of about 62,000 trout annually are dedicated to this program. The result of Georgia's Brook trout genetics work has been published in the Southeastern (Dunham, et al. 2001) and additional sampling is planned. Standardized sampling of trout streams resumed in 2000 and will continue on an annual basis. Impacts to streams as a result of a four-year drought appear to be minimal so far. Drought impacts to hatcheries have been substantial, requiring significant changes in stocking schedules to reduce loading during critical periods. Stream flows continue to be below normal. Trout stocking for predator control in several mountain reservoirs has successfully established significant sport fisheries, and "lake trout" fishing has become quite popular with anglers. Trout production for 2002 has been reduced about 10% due to budget problems.

Tennessee (Jim Habera): The first fishing season on two delayed harvest streams was recently completed. Each stream receives about 5,000 catchable size rainbow trout. The fisheries have been well-received, although angler effort has been low in the first season. Requests for additional delayed harvest areas are already coming-in. Monitoring on two brook trout restoration projects continues. On the Left Prong Hampton Creek project, brook trout were established in a stream formerly inhabited by a high-density rainbow trout population which was removed by electrofishing. On Little Jacob Creek, brook trout were simply introduced into an existing rainbow trout population, where they have spawned successfully. Other wild trout fisheries are also being monitored and there are now 10-11 years of data on several streams. Tennessee has been in a drought cycle since 1998, and wild trout standing crops have generally declined (50-60% in some cases). Reproduction remains excellent, but recruitment into adult sizes has declined. Collection and study of wild rainbow trout otoliths is underway to complement similar information

for wild brown trout. Wild trout populations are being screened for 8 different diseases including whirling disease. All samples have been negative except for a few instances of bacterial kidney disease. However, no clinical signs of any disease have ever been noted. Bait was defined in the 2002 fishing guide. More information on the Tennessee trout program can be found at www.tnwildlife.org. (Jim also distributed a copy of the publication: J. W. Habera, R. J. Strange and R. D. Bivens. 2001. A revised outlook for Tennessee's brook trout. J. Tenn. Acad. Sci. 76(3):68-73.)

Tennessee (Frank Fiss): Due to reductions in trout stockings in tailwaters, additional trout have become available for stocking in urban areas, where high angler utilization has resulted. Also, trout are being stocked in Dale Hollow and S. Holston reservoirs, but after two years, there is little evidence of survival or fishery creation. Tennessee is noting a trend towards development of privately-developed fee access sites on its tailwaters. Phil Betolli is finishing an economic survey of tailwater trout fisheries and is finding values similar to the upstream reservoir fisheries. Tennessee is trying to develop ways of accurately aging trout in tailwater fisheries. They have also contracted with John Epifanio to genetically identify their hatchery trout strains and plan to do a similar analysis of wild trout to determine which strains are reproducing in tailwaters. Tennessee plans to write a trout management plan in the next 2-3 years.

Great Smoky Mountains National Park (Matt Kulp): Southern Appalachian brook trout populations have been re-established in 8.1 miles of streams using electrofishing removal of rainbow trout. Rainbow trout were removed from 3.0 miles of Sam's Creek using antimycin, but problems were created with detoxification as a result of the chemical binding to fallen leaves in the stream. Antimycin and the detoxicant, potassium permanganate, were both toxic to invertebrates in the short term, but population recovery was quick and complete (i.e. < 6 months). Crayfish and salamanders were not affected. Allopatric populations of brook trout are now found in 97 miles of streams, about 11% of which are restored populations. Eight brook trout streams will be opened to angling in 2002 to evaluate the effects of fishing on wild brook trout populations. Matt and Steve just finished a draft of the "History of Fishing Regulations in GRSM" which will be sent out for publication. Based on those data, they will visit liberalizing regulations for rainbow and brown trout in the future. Concerns continue about the effects of acid precipitation in GSMNP, with one prediction that in 50 years the average pH in streams at 3000' will be less than 6.0.

Kentucky (Dave Dreves): Currently, Kentucky has five streams managed with delayed harvest regulations and will likely expand the program to four more streams next year. Kentucky is planning an attitude survey of Kentucky anglers which will hopefully lead to a survey specifically directed towards trout anglers. Such surveys will probably be contracted to the University of Louisville.

Virginia (Steve Reeser): The third trout angler survey of the last 12 years has recently been conducted. Biologists are working to re-define regulations referring to gear restrictions (artificial lures single hook only) to gain consistency among streams under different management programs. Like other states in the region, Virginia is still in a

severe drought that began in 1998. The drought conditions have enhanced wild brook trout reproduction with biologists documenting some of the strongest year-classes ever recorded in Virginia. However, biologists speculate that natural mortality of adult brook trout has increased with drought conditions, but major declines in trout populations have not been observed. Brook trout streams in the Blue Ridge Mountains were damaged by a 10,000 year flood event in 1995, but populations have already recovered. In the St. Mary's River, stream acidification has been mitigated by delivering lime to the watershed via helicopter. Brook trout and a number of acid sensitive non-game fishes have returned. Virginia has expanded the amount of fisheries information on their website and will include links to information about individual trout streams in the near future. Steve has conducted a survey of anglers fishing wild trout streams using volunteers from Trout Unlimited to conduct the interviews. Ten streams have been sampled in the past two years.

USFWS (Jarrad Kosa): The National Fish Hatchery System is undergoing extensive program analyses and reforms to ensure that their activities further the objectives of the current administration. The U.S. Fish and Wildlife Service is preparing their budget for FY2004. The USFWS is interested in creating a partnership initiative to restore and enhance the Southern Appalachian brook trout in its native range. They have had recent partnership successes in restoring native trout in other parts of the U.S. (L. Superior coaster brook trout; Apache trout and greenback cutthroat out west) yet have not addressed the native trout situation in the Southeast. The USFWS would like any comments the management agency representatives (states, NPS, USFS) have regarding their current needs and what roles the USFWS could fill in any partnership. The USFWS recognized that finishing the genetic typing work is a high priority for several state agencies in the Southeast and they believe that it may be possible to enlist the aid of their genetics lab in Alaska. Also, there may be opportunities for them to work with the Cherokee Reservation, such as a resource inventory.

North Carolina (Jim Borawa): Efforts to genetically "type" brook trout continue, and about 200 of the state's 350 known populations will be sampled by the end of the year. In a recent report of trout population sampling conducted on 17 wild trout streams, guidelines for other sampling were developed. They determined that one sample would generally be adequate to determine management strategies for a stream and further recommended that intensive surveys be conducted every 10-15 years with "routine" sampling on a more frequent basis. They have also recently completed an evaluation of their delayed harvest program and while angler effort has increased dramatically since 1992, satisfaction ratings remain high. Creel surveys on put-and-take fisheries have also been conducted to determine the patterns in trout angling trip characteristics and trout harvest. Efforts to enhance the fishery in the Lake James tailwater have concluded that spring-stocked fingerlings survive well and grow 17 mm per month over the first summer. North Carolina is developing a fishery resource classification system that will show the location of coldwater, coldwater/coolwater transition, coolwater and warmwater fisheries across the state. A watershed enhancement program is being developed to supplement the existing stream restoration program and explore how the agency can be most effective in enhancing stream habitat.

Missouri (Mike Kruse): Missouri is writing a statewide trout management plan that will provide direction to future trout culture, stocking and management efforts. After internal review, public comments will be solicited, reviewed and integrated into the final draft. Trout management staff have indicated an interest in conducting a survey of Trout Permit buyers as well as an assessment of Missouri's trout habitat. Water temperature monitoring and preliminary physical habitat measurements will begin this summer, but funding is not currently available to do the trout permit survey. A multi-year drought has reduced hatchery production and caused a 10% reduction in rainbow trout stocking. Other trout projects include an updated trout fishing map, efforts to re-define what constitutes a "fly" and efforts to do enhance communication with anglers using the Department's website.

Arkansas (Darrell Bowman): Darrell Bowman is the new state trout biologist and is currently writing a statewide trout management plan. They are hoping to increase the average size of trout stocked in Arkansas to 11 inches, but this will require a 20% reduction in the number produced. Trout permit sales are down this year. A recent study of great blue herons showed that they consumed about 5% of the trout stocked in the White River. Nine new proposals for changes to trout fishing regulations have been proposed by the Arkansas Game and Fish Commission, these include a reduction in the statewide daily limit from 6 to 5 trout per day, limiting fishing to one pole per angler, increasing the cost of non-resident trout permit from \$9 to \$12 and loss of guiding license after one harvest violation.

Tailwater Workshop

Arkansas (Darrell Bowman): Alan Carter is now working strictly on White River minimum flows. They are expecting a report from the U.S. Army Corps of Engineers on minimum flow feasibility this fall. Larry Rider is currently working full time on habitat improvement in tailwaters and has been given a budget of 2-3 million dollars to enhance habitat. Arkansas is routinely using fish health assessments to monitor the effects of low dissolved oxygen on trout. Changes to the fishing regulations on the entire 4.5 miles of the Norfolk tailwater have been proposed. These include a 12" to 21" slot length limit on rainbow trout, a restriction to artificials only, and a 21" minimum length limit on brown, brook and cutthroat trout. A new trout fishery has been created in Collins Creek, a tributary to the Little Red River, by siphoning cold, water from Greers Ferry Reservoir to the stream's headwaters. Sampling indicates that natural reproduction of rainbow trout from the tailwater has already occurred.

Kentucky (Dave Dreves/Brett Billings): A 20-inch minimum length limit is in effect for brown trout in the Cumberland River. Historically, brown trout have grown about 0.5" per month, but after hub baffles were installed on the dam's turbines increased dissolved oxygen, growth increased to 0.7" per month. An angler survey being conducted this year will gauge angler opinions toward a harvest restriction on rainbow trout. Brett Billings of the Kentucky Dept. of Fish and Wildlife Resources also gave a detailed presentation on

fishing the Cumberland River. He maintains a website of the river's fishing at www.cumberlandtrout.com).

Tennessee (Frank Fiss): Frank presented a detailed description of each of Tennessee's tailwater trout fisheries and distributed a variety of tables showing each area's fishing regulations, dissolved oxygen conditions, minimum flows, stocking, fishing effort and economic benefit, catch and harvest by species and angling methods. Also, opportunities for enhancement and possible management changes were discussed for each tailwater.

Lake Taneycomo, Missouri (Mike Kruse): Mike presented a description of trout population and trout angler responses to regulation changes on upper Lake Taneycomo. A 12-20 inch slot length limit on rainbow trout and an artificial lures only gear restriction were enacted on the upper 3 miles of the fishery in 1997. Since then, electrofishing capture rates have increased approximately 10-fold in the special regulations area, and the percentage of trout over 13 and 16 inches has increased. Angling effort has been constant, but the harvest of trout has declined substantially. Despite the slot length limit, almost no trout are harvested in the special regulations area. Further downstream, the fishery remains essentially put-and take for rainbow trout, but voluntary release of rainbows has increased to about 25-30% of the number caught. Brown trout in the special regulations area are growing more slowly, possibly as a result of interspecific competition with the large population of rainbow trout.

Georgia (Lee Keefer): Three tailwater fisheries are managed in Georgia. The tailwater of Lake Hartwell is about a mile long and is managed as a put-and-take fishery. The Blue Ridge tailwater is approximately 20 miles long and is managed as a put-and-take fishery but some holdover trout are also present. The longest and most intensively-managed tailwater is the Chattahoochee River below Lake Sidney Lanier, which consists of about 40 miles of trout water and another 10 miles of marginal water. The fishery is stocked with 250,000 catchable rainbow and brown trout along with about 50,000 stocked into a delayed harvest section. Water quality problems include polluted urban runoff and high iron and manganese concentrations in the tailwater during reservoir turnover. Comparison of Walhalla and Plymouth Rock strain brown trout has shown that the Walhalla strain performs better in the wild and in the hatchery. Anglers voluntarily release about 70% of the brown trout they catch, while harvesting about 70% of the rainbows. When water quality is poor, angler catch rates of trout decline. Catch rates of brown trout decline less severely under such conditions.

Virginia (Steve Reeser): Virginia Tech is conducting an extensive study of the wild brown trout fishery in the Jackson River tailwater. In the past, alewives have come through the dam and allowed brown trout to grow to large sizes, but this no longer occurs and the maximum size is now about 13 inches. Studies of the population and river include temperature and flow modeling, redd counts, food habits, and growth of individual fish marked with PIT tags. On the Jackson River, loss of public access caused the cessation of stocking. Recently, however, natural reproduction of both brown and rainbow trout has begun and some access to the fishery has been established.

Southern Appalachian Brook Trout Position Paper

The committee devoted considerable time to discussion and editing of this document. A few highlights of the discussion include:

Questions regarding genetic analysis, “lumping” versus “splitting” of brook trout populations and associated management controversies have set the stage for this document. Furthermore, concerns that federal regulations might require states to enact very conservative management of brook trout created an additional need for a summary of information.

There is NO intention to dictate state management of brook trout resources.

A recommendation that the committee position be moved to the beginning of the document was discussed and accepted.

After committee approval of the draft, it needs to be sent to southern Fish Chiefs for their approval.

Eventual plans are for publication in *Fisheries* magazine.

The above meeting summary was prepared by Mike Kruse on May 21, 2002.