

Coldwater Fish Production

Statewide Hatchery Report 2014

TWRA Fisheries Report No. 15 – 02



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Edited by
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Introduction

Tennessee offers a variety of trout fishing opportunities. A 2012 angler survey conducted by the University of Tennessee reported that about 104,000 anglers fish for trout in Tennessee annually. Trout anglers represented 15% of all anglers in Tennessee; this was an increase from 9.5% in 2010.

TWRA trout hatcheries play a critical role maintaining traditional fisheries and expanding opportunities. TWRA stocks trout to create fisheries in seasons or waters that are otherwise not used by anglers. TWRA's winter trout program has demonstrated that stocking waters that are convenient to the public is a promising strategy for recruiting more trout anglers.

Although there are numerous wild trout streams in Tennessee (unstocked waters), most anglers rely on stocked streams, tailwaters and lakes for their trout fishing. Rainbow trout are uniquely suited for stocking because they are among a short list of species that can efficiently be grown to large lengths in a hatchery. Rainbow trout are commonly stocked at a length of 9-12 inches which is large enough to be appreciated and likely harvested by the average angler. In locations with acceptable habitat, large numbers of smaller trout (4-7 inch) are stocked. These fish are expected to grow to desirable sizes naturally. Brown, brook and lake trout are commonly stocked at small sizes in Tennessee.

This report provides an overview of the trout stocking program in Tennessee in 2014. The first section provides a summary of all trout production in the state. The next section contains production and accomplishments at each individual hatchery involved in trout production in Tennessee. The last section provides stocking totals for each type of fishery. All data are based on 2014 calendar year distribution records. Some stocking information may deviate from the calendar year, due to Winter and Delayed-Harvest seasons. A comprehensive coldwater production database is located at the Fisheries Division in Nashville.

2014 Trout Hatchery Summary

TWRA operates four trout hatcheries: Erwin State Hatchery, Tellico Hatchery, Buffalo Springs Hatchery and Flintville Hatchery. Hatcheries are operated for optimized production to maximize quantity and minimize fish health issues. Hatcheries produced approximately 269,500 pounds of trout (855,500 trout) at a cost of \$1.1 million in 2014 (Table 1). Estimated annual production (pounds) is the total pounds stocked minus pounds of startup trout if applicable (Table 1). “Startup” trout are those trout received from another hatchery that are grown to stock size at the receiving hatchery. Only Tellico and Erwin hatcheries receive startup trout. Humboldt Hatchery, a warmwater hatchery, plays a minor role in annual trout production (approximately 4,600 pounds) in the Winter Stocking Program. The rainbow trout are acquired from the Flintville Hatchery and held in ponds and in a new 100-foot, double-sided raceway at Humboldt until the appropriate release date. These trout are stocked in West Tennessee ponds and small lakes.

Table 1. Total trout delivered (stocked into Tennessee waters and transferred to other hatcheries), estimates of annual production, and estimated cost for TWRA’s primary trout hatcheries in 2014.

	Erwin State	Tellico	Buffalo Springs	Flintville
Number of Trout Stocked or Transferred	82,425	150,643	524,122	97,217
Pounds of Trout Stocked or Transferred	34,371	94,167	98,417	42,476
Number of Stocking Trips	150	279	186	181
Estimated Annual Production (lbs)	21,938	50,296	98,417	42,476
Annual Hatchery Budget (FY13/14)	\$232,737	\$229,362	\$441,502**	\$262,395
Est. Cost per Pound of Estimated Production (FY13/14)***	\$10.60	\$4.56	\$4.49	\$6.18
Estimated Cost per Pound of Trout Stocked (FY13/14)***	\$6.77	\$2.44	\$4.49	\$6.18

** Buffalo Spring’s budget was calculated as the total budget (\$517,413) minus an estimated cost for the TWRA employee who delivers Dale Hollow NFH fish (\$56,573) and his hauling truck (\$19,338) stationed at Buffalo Springs Hatchery.

*** Estimation of costs per pound is the actual budget expenditures which are spent on production and stocking. It does not account for other activities performed by hatchery staff, therefore it should be considered an overestimation.

Several factors affect trout production from year to year. Feed quality and consumption, water quality (temperature and oxygen levels), fish densities in raceways and predation. Figure 1 shows the yearly net production for a 5-year period at all the TWRA hatcheries.

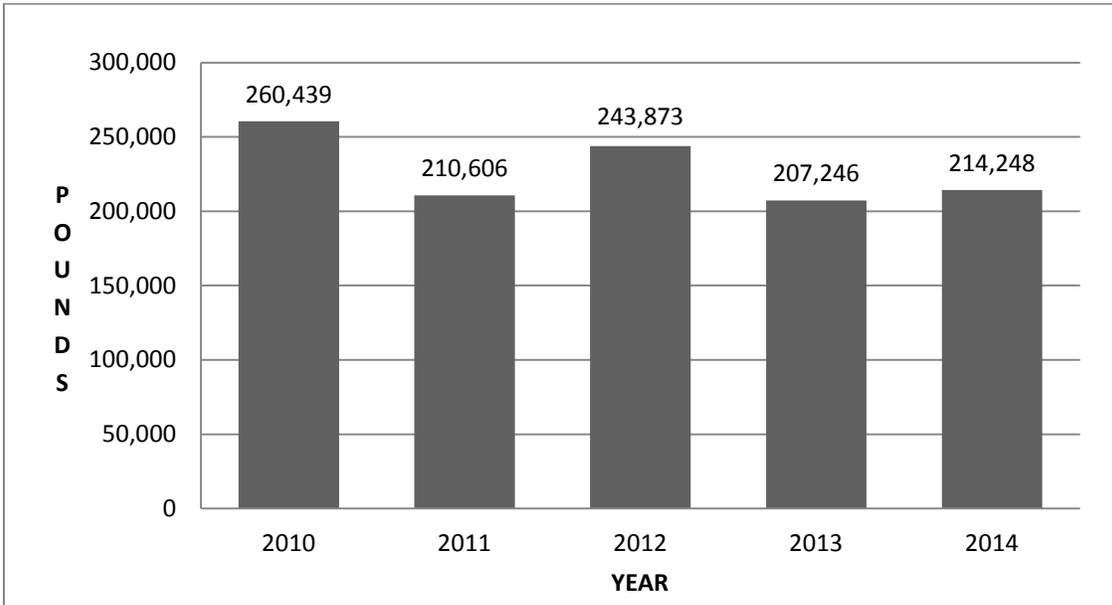


Figure 1. Net production of trout (pounds) by TWRA hatcheries.
 Net production = gross production (pounds) – start up (pounds).

In 2014, TWRA produced 214,248 pounds of trout for Tennessee waters. Figure 2 shows the contribution by each hatchery.

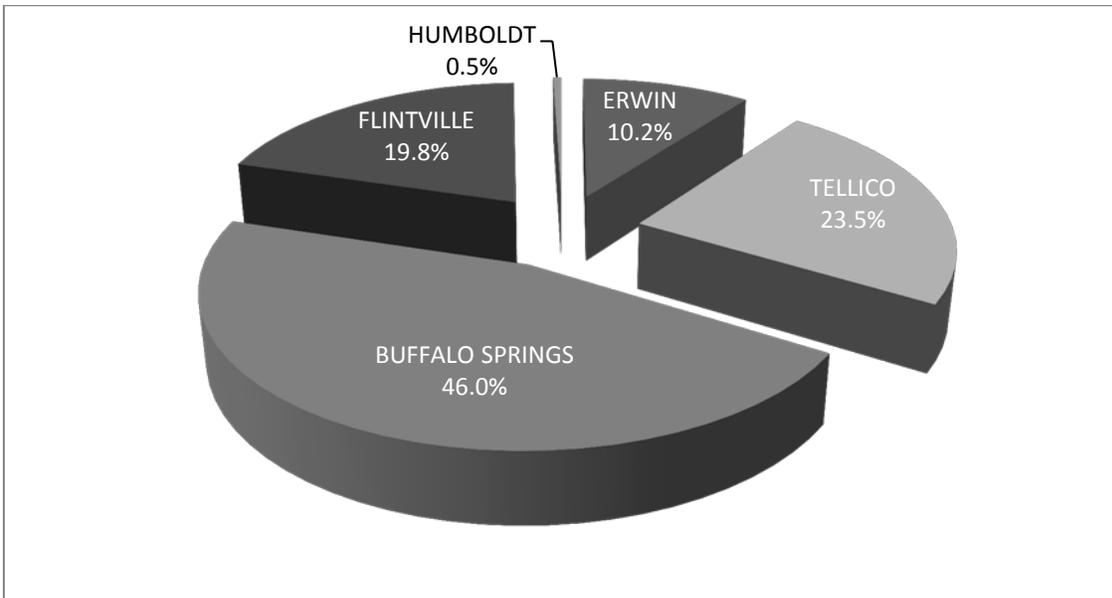


Figure 2. Percent net production (pounds) by TWRA hatcheries.
 Net production = gross production (pounds) – start up (pounds).

Two USFWS hatcheries play a critical role in trout production in Tennessee. Dale Hollow National Fish Hatchery (DHNHFH) produced an additional 312,000 pounds of trout (1.65 million fish). Erwin National Fish Hatchery stocked about 30,000 pounds of large brood fish (12-20 inches). Dale Hollow NFH produced the most pounds (53.3%) of any Tennessee hatchery (Figure 3). Tennessee waters are stocked with four species of trout. All hatcheries raise and stock rainbow trout, which is the highest percentage of stocked fish (Figure 4).

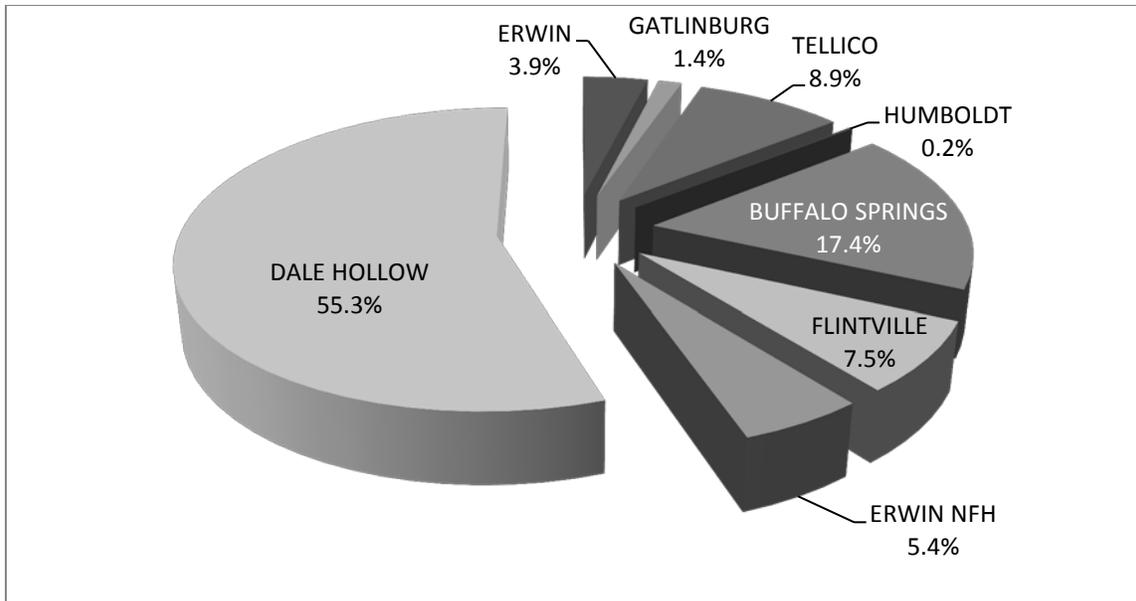


Figure 3. Percent net production (Pounds) by all hatcheries.
 Net production = gross production (pounds) – start up (pounds).

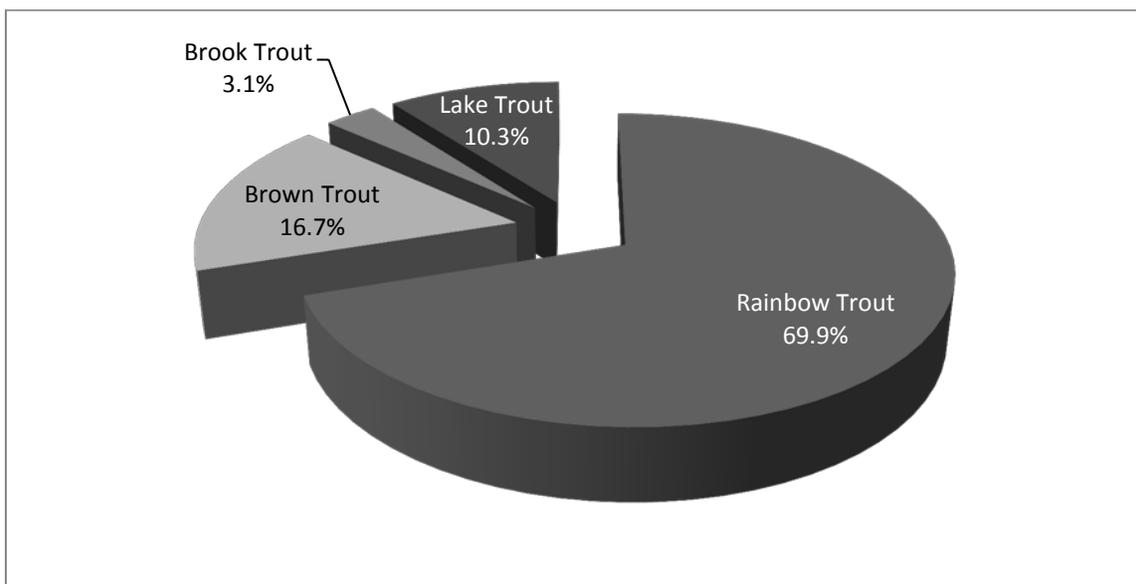


Figure 4. Percent by number of trout species stocked in Tennessee.

Along with rainbows, Dale Hollow NFH stocked brook, brown, and lake trout. Tellico Hatchery is the only state hatchery that stocked rainbow and brown trout. A total of eight hatcheries stock approximately 2.2 million trout (564,500 pounds) in Tennessee waters. Sixty-three percent of all trout stocked are 7 inches or greater (Table 2).

Table 2. Total number and weight of trout stocked by each hatchery in 2014 (does not include hatchery transfers). FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

Hatchery	Species	Stage	Number	Weight (lbs)	Number of Stocking Trips
ERWIN	RAINBOW	ADULT	74,800	31,716	148
ERWIN	RAINBOW	FINGL	7,625	2,655	2
TELLICO	BROWN	ADULT	9,185	3,607	11
TELLICO	RAINBOW	ADULT	140,958	90,260	267
BUFFALO SPRINGS	RAINBOW	FINGL	163,800	8,915	10
BUFFALO SPRINGS	RAINBOW	ADULT	200,024	74,256	157
FLINTVILLE	RAINBOW	ADULT	81,328	37,831	173
DALE HOLLOW USFWS	BROOK	ADULT	67,942	21,376	22
DALE HOLLOW USFWS	BROWN	ADULT	169,694	29,231	35
DALE HOLLOW USFWS	BROWN	FINGL	188,640	13,541	17
DALE HOLLOW USFWS	LAKE	FINGL	226,535	8,468	12
DALE HOLLOW USFWS	RAINBOW	ADULT	619,429	194,378	263
DALE HOLLOW USFWS	RAINBOW	FINGL	198,069	5,750	9
ERWIN USFWS	RAINBOW	ADULT	11,662	26,111	30
ERWIN USFWS	RAINBOW	FINGL	10,454	262	2
GATLINBURG	RAINBOW	ADULT	24,539	11,547	67
HUMBOLDT	RAINBOW	ADULT	11,366	4,622	16
Total			2,206,050	564,526	1,241

Buffalo Springs Hatchery produces trout for hatchery-supported streams, reservoirs, and tailwaters in East Tennessee. They receive eggs from disease-free sources, such as Erwin National Fish Hatchery. Eggs are incubated and hatched, producing fry that are grown to various sizes. Buffalo Springs Hatchery supplies Erwin State Fish Hatchery with fingerling (4-5 inch) rainbow trout as their starter fish. Similarly, Buffalo Springs Hatchery provides 6-inch rainbow trout to the City of Gatlinburg’s hatchery to be grown out and stocked in Gatlinburg streams. In 2014 three streams (LeConte Creek, Roaring Fork, and West Prong Little Pigeon River) were stocked with approximately 24,500 trout by the City of Gatlinburg.

Erwin State Hatchery relies on starter fish from Buffalo Springs Hatchery. Most fish produced at Erwin State Hatchery are 10-inch rainbow trout to be stocked in hatchery-supported streams in upper east Tennessee.

Tellico Hatchery receives 9-inch rainbow trout from DHNFH. These fish are then grown to 11-12 inches and stocked frequently into the Tellico River, Citico Creek, and Green Cove Pond. This intense management requires additional fees to support the program and a special Tellico-Citico permit is required to fish these waters. Several Polk County streams are also stocked with trout from this hatchery. Tellico Hatchery acquired broodstock of the Southern Appalachian strain brook trout, and successfully spawned and hatched the eggs in 2013 and in 2014.

Flintville Hatchery was established in 1933 and is Tennessee's oldest trout hatchery. This hatchery grows rainbow trout from eggs to a variety of sizes for waters in middle and West Tennessee. Flintville's trout are primarily stocked in hatchery-supported streams and winter trout areas, as well as a few tailwaters.

Tennessee relies heavily on trout from DHNFH to stock tailwaters and reservoirs, and to supply trout to Tellico Hatchery. DHNFH produced 312,000 pounds of trout (1.6 million fish) in 2014. Most of these fish were produced to mitigate for fisheries that were permanently lost due to the construction and operation of dams. Ninety-six percent of all brown trout and one hundred percent of lake trout stocked in Tennessee are from DHNFH.

In addition to production, hatchery staff is responsible for the delivery of trout according to the schedule developed by the management team. Hatchery drivers made 1,241 stocking trips in 2014. Figure 5 shows the number of trout stocked in specific habitats. Tailwaters receive the highest number of trout and stocking trips. See Appendix A, for individual stocking totals by program.

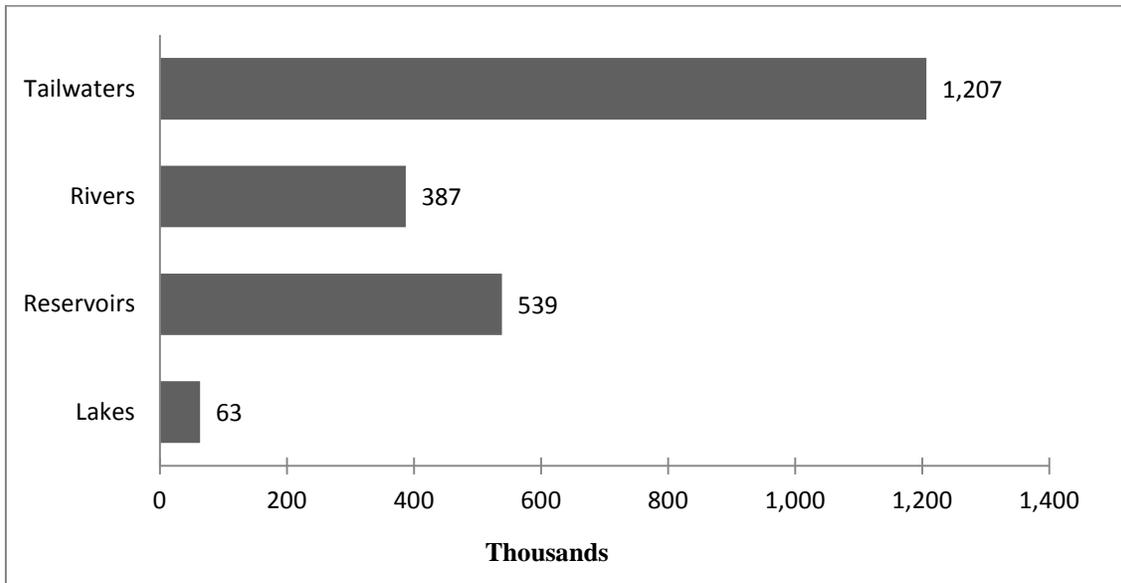


Figure 5. Number of trout stocked by habitat.

Flintville Hatchery

Location: 20 acres owned by TWRA within the 720-acre Flintville Wildlife Management Area located near Flintville along HWY 64 in Lincoln County.

Hatchery Operation: Spring water is collected from pipes in Warren Hollow to supply water to the hatchery building and the concrete outdoor raceways. Inside the hatchery building there are eight concrete rearing tanks (28 ft x 2.5 ft) with 40 gallons per minute flow that are used to incubate eggs and rear small trout. Outside there is one long raceway (960 ft x 8 ft x 3 ft) with an average flow of 700 gallons per minute. This raceway was renovated in 2007. A second raceway (410 ft x 5 ft) is not used due to poor structural integrity and variable flow from the main raceway and water from Crowder Spring. The third raceway (265 ft x 8 ft) reuses water from the main raceway and from Crowder Spring to maintain a flow of about 500 gallons per minute.

Flintville Hatchery typically purchases eggs from the Trout Lodge Hatchery, a private hatchery in the State of Washington. These eggs cost about \$20 per thousand. They are worth the additional cost because they reliably survive and grow very well requiring little maintenance. Another advantage is that they are a unique strain, Kamloops, which does very well in some locations when stocked as fingerlings. TWRA benefits from having this strain that is not available through the USFWS egg program. Eggs are incubated, hatched and reared in the hatchery building and then moved outside when they reach suitable sizes.

Flintville Hatchery stocks most of its trout as large fish 10-12 inches in streams and tailwaters in middle Tennessee. Flintville Hatchery also produces a large number of trout for the Winter Trout Program. In a typical year about 18,000 miles are driven while stocking

trout. All of the stockings are done in a single day with no overnight travel. Their staff's longest trip is to Collierville at Johnson Park, a round trip of 450 miles requiring approximately 14 hours.

ACCOMPLISHMENTS:

- Production information (Table 3)
- Locations stocked (Table 4)
- Five-year production summary (Figure 6)

Other Activities:

Construction of a new (45 ft x 70 ft) 5-bay equipment storage building was completed in December 2014. This building will be used to store fish transport trucks, a tractor and implements, and miscellaneous power equipment. Space in the existing buildings will be utilized in a more efficient manner. Hatchery staff will now be able to store more fish food and manipulate pallets much easier within the existing feed storage building.

A leak developed in the waterline that supplies the central bank of water inlets on the indoor rearing tanks. Upon excavation, it was discovered that the water supply pipe was made of asbestos cement. The decision was made to excavate back to the point where a previously connected PVC pipe was joined to the asbestos pipe in 2007. Retrofitting the central bank of water inlets in an overhead configuration and completely abandoning the existing 50-year old pipe system was the best solution for reliable long-term use.

The hatchery acquired a 2014 Kawasaki Mule UTV, which will be used for daily maintenance activities and feeding of trout.

Regular posting of status updates, photos, and stocking information resulted in the Flintville Fish Hatchery Facebook page exceeding 500 "Likes" in 2014.

The TWRA Engineering Division provided two tractors and operators to cut back overgrown vegetation around the hatchery grounds, WMA food plots, and access roads. About half of the area was cleared before the crew had to leave for another project.

The opportunity for self-guided hatchery tours is provided to the public Monday through Friday. Hatchery staff provides an average of 6 scheduled tours to schools, community organizations, and local government officials annually. Visitation averages approximately 800 visitors per year.

Flintville staff assisted with the 2014 Lincoln County Kids Fishing Day event at Stonebridge Park in Fayetteville.

Approximately 35 acres of wildlife food plots were planted on the Flintville Hatchery Wildlife Management Area in 2014. As a result of excavating fill material for the new storage building, a (100 ft x 50 ft) pond was dug on the south end of the WMA. This pond will rely upon precipitation as it's water source and will be beneficial to both game and non-game species.

Table 3. Summary of Flintville Hatchery:

Number of Trout Stocked	97,217
Pounds of Trout Stocked	42,476
Number of Stocking Trips by Flintville Drivers	181
Estimated Annual Production (lbs)*	42,476
Annual Hatchery Budget Spent (FY13/14)	\$262,395
Estimated Cost per Pound of Production (FY13/14)**	\$6.18
Estimated Cost per Pound of Trout Stocked (FY13/14)**	\$6.18

* Production is estimated as the total pounds stocked plus trout transferred to others hatcheries.

**Cost estimates assume that all the money spent in the budget was on trout production. Therefore, this is an overestimation.

Table 4. Total number and weight of trout stocked from Flintville Hatchery in Tennessee waters. ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
BARREN FORK RIVER	WARREN	RAINBOW	ADULT	1,514	690	3
BATTLE CREEK	MARION	RAINBOW	ADULT	1,097	495	3
BIG ROCK CREEK	MARSHALL	RAINBOW	ADULT	747	389	4
BEECH LAKE	HENDERSON	RAINBOW	ADULT	1,279	630	4
BILLY DUNLAP PARK	MONTGOMERY	RAINBOW	ADULT	1,293	701	4
CALFKILLER RIVER	PUTNAM	RAINBOW	ADULT	1,539	665	3
CANE CREEK (HICKMAN)	HICKMAN	RAINBOW	ADULT	742	353	4
CANE CREEK (PERRY)	PERRY	RAINBOW	ADULT	2,055	966	4
CANE CREEK (VANBUREN)	VANBUREN	RAINBOW	ADULT	2,356	1,105	3
CHARLES CREEK	WARREN	RAINBOW	ADULT	886	395	3
COLLINS RIVER	GRUNDY	RAINBOW	ADULT	3,006	1,365	3
COWAN CITY PARK	FRANKLIN	RAINBOW	ADULT	1,095	529	5
DUCK RIVER FISHERMANS PARK	BEDFORD	RAINBOW	ADULT	777	364	2
DUCK RIVER RIVERSIDE DAM	MAURY	RAINBOW	ADULT	1,554	772	3
E FORK SHOAL CREEK	LAWRENCE	RAINBOW	ADULT	2,227	1,077	6
ELK RIVER (GRUNDY)	GRUNDY	RAINBOW	ADULT	584	270	2
FLYNNS LICK CREEK	JACKSON	RAINBOW	ADULT	1,049	495	3
HARPEATH RIVER	WILLIAMSON	RAINBOW	ADULT	4,223	2,022	6
HURRICANE CREEK (HOUSTON)	HOUSTON	RAINBOW	ADULT	1,271	570	2
HURRICANE CREEK (HUMPHREYS)	HUMPHREYS	RAINBOW	ADULT	3,017	1,280	3
JD BUCKNER LAKE	DICKSON	RAINBOW	ADULT	1,339	637	4
JOHNSON PARK LAKE	SHELBY	RAINBOW	ADULT	2,046	962	4
KINGSTON SPRINGS LAKE	CHEATHAM	RAINBOW	ADULT	770	372	4
LAKE GRAHAM	MADISON	RAINBOW	ADULT	2,857	1,457	5
LAUREL CREEK (VANBUREN)	VANBUREN	RAINBOW	ADULT	801	380	3
LITTLE BUFFALO RIVER	LAWRENCE	RAINBOW	ADULT	3,157	1,390	4
LITTLE SEQUATCHIE RIVER	MARION	RAINBOW	ADULT	2,119	940	3
MARROWBONE LAKE	DAVIDSON	RAINBOW	ADULT	3,097	1,457	5
MCCUTCHEON CREEK	MAURY	RAINBOW	ADULT	1,853	897	6
MILL CREEK	HICKMAN	RAINBOW	ADULT	3,312	1,520	4
MOUNTAIN CREEK	WARREN	RAINBOW	ADULT	517	225	2
N BARREN FORK CREEK	WARREN	RAINBOW	ADULT	1,136	530	3
N CHICKAMAUGA CREEK	HAMILTON	RAINBOW	ADULT	669	300	3
PINE CREEK	DEKALB	RAINBOW	ADULT	1,554	715	3
PINEY CREEK	RHEA	RAINBOW	ADULT	1,560	710	3
POCKET CREEK	MARION	RAINBOW	ADULT	1,342	585	3
ROCKY RIVER	VANBUREN	RAINBOW	ADULT	934	435	3
SALT LICK CREEK	MACON	RAINBOW	ADULT	712	340	2
SEQUATCHIE RIVER	CUMBERLAND	RAINBOW	ADULT	1,539	665	3
SHELBY PARK LAKE	DAVIDSON	RAINBOW	ADULT	4,527	2,115	4
SINK CREEK	DEKALB	RAINBOW	ADULT	1,064	460	3
STANDING ROCK CREEK	STEWART	RAINBOW	ADULT	880	395	2
STANDING STONE LAKE	OVERTON	RAINBOW	ADULT	430	215	1
STONE BRIDGE PARK	LINCOLN	RAINBOW	ADULT	652	342	2
SULPHUR FORK CREEK	ROBERTSON	RAINBOW	ADULT	1,032	533	4
SWEETEN CREEK	MARION	RAINBOW	ADULT	1,161	535	3
TOWN CREEK	MARION	RAINBOW	ADULT	542	235	3
TUMBLING CREEK (HUMPHREYS)	HUMPHREYS	RAINBOW	ADULT	2,017	855	3
UPPER HILLS CREEK	WARREN	RAINBOW	ADULT	815	375	2
W FORK STONES RIVER	RUTHERFORD	RAINBOW	ADULT	1,466	746	4
WHITEOAK CREEK	HOUSTON	RAINBOW	ADULT	880	395	2
TOTAL				79,091	40,571	170

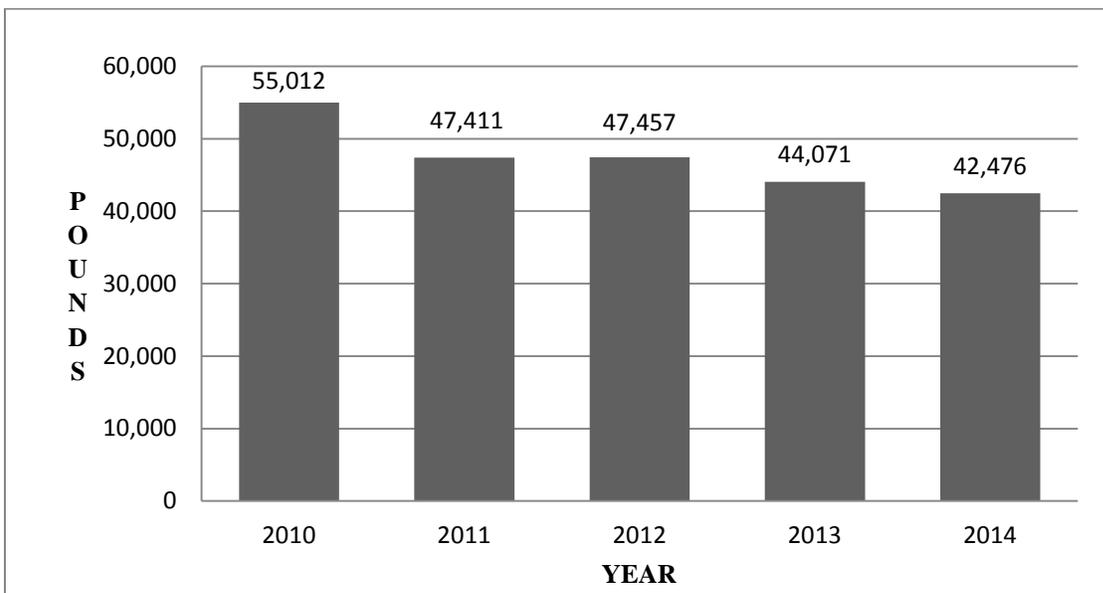


Figure 6. Net production of trout (pounds) from 2010 to 2014 at Flintville Hatchery. Net production = gross production (pounds) – start up (pounds).

Buffalo Springs Hatchery

Location: 20-acre site owned by TWRA is near Buffalo Springs in Grainger County.

Hatchery Operation: An artesian spring supplies groundwater to the hatchery at an average rate of 3,500 gallons per minute. This water is used in the hatchery building and in the outdoor raceways. Inside the hatchery building there are three egg incubating stacks and 2 fiberglass rearing troughs and there are 23 concrete troughs (3 ft x 15 ft) for fingerling rearing. Outside there are 24 raceways (400 ft x 8 ft) in operation. The flow rate in the outdoor raceways is typically 1,200 gallons per minute.

Rainbow trout eggs are supplied to Buffalo Springs Hatchery by the USFWS national brood system. These eggs are incubated, hatched and reared to about 3 inches in length before being moved to the outside raceways. These fish are reared in outside raceways for up to 14 months until they are ready to be stocked.

Buffalo Springs Hatchery delivers about 203,000 5-inch rainbow trout to Erwin State Fish Hatchery where they are grown to stock size. Buffalo Springs Hatchery also provided 36,000 6-inch rainbow trout to the City of Gatlinburg, where these fish are reared and stocked into Gatlinburg streams. The rest of the trout produced at Buffalo Springs Hatchery are stocked into area streams, reservoirs and tailwaters. One driver is dedicated to hauling trout from DHNFH to Tellico Hatchery and to tailwaters and reservoirs of East Tennessee. Both trucks assigned to the hatchery (1,000 and 1,200 pound capacity) made 315 trips in 2014, of these 132 were to haul DHNFH trout.

ACCOMPLISHMENTS:

- Production information (Table 5)
- Locations stocked (Table 6)
- Five-year production summary (Figure 7)

Other Activities:

- Maintain property, vehicles, and structures
- Hatchery tours to public (~500 visitors per year)
- Trout educational programs
- Kids fishing events
- Hunter safety programs

Table 5. Summary of Buffalo Springs Hatchery:

Number of Trout Stocked	524,122
Pounds of Trout Stocked	98,417
Total Number of Stocking Trips by Buffalo Springs	186
Number of Stocking Trips for DHNFH	132
Estimated Annual Production (lbs)*	98,417
Annual Hatchery Budget (FY13/14)**	\$441,502
Estimated Cost per Pound of Production (FY13/14)***	\$4.49
Estimated Cost per Pound of Trout Stocked (FY13/14)***	\$4.49

* Production is estimated as the total pounds stocked plus trout transferred to others hatcheries.

** Buffalo Spring’s budget was calculated as the total spent budget (\$517,413) minus An estimated cost for the Dale Hollow driver (\$56,573) and hauling truck (\$19,338) stationed at Buffalo Springs Hatchery.

*** Cost estimates assume that all money in the budget was spent on trout production. Therefore, this is an overestimation.

Table 6. Total number and weight of trout stocked from Buffalo Springs Hatchery in Tennessee waters. FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
ALEXANDER CREEK	HAWKINS	RAINBOW	ADULT	2,000	969	6
BIG CREEK	HAWKINS	RAINBOW	ADULT	2,500	1312	5
BUFFALO CREEK	GRAINGER	RAINBOW	ADULT	7,091	3,650	28
CHEROKEE TW	GRAINGER	RAINBOW	ADULT	12,059	1,973	2
CHILHOWEE RES	BLOUNT	RAINBOW	ADULT	4,341	1,200	1
COSBY CREEK	COCKE	RAINBOW	ADULT	4,500	2,412	9
FLAT FORK CREEK	MORGAN	RAINBOW	ADULT	1,500	776	3
FORT PATRICK HENRY TW	SULLIVAN	RAINBOW	ADULT	7,508	479	1
GAP CREEK	CLAIBORNE	RAINBOW	ADULT	1,500	768	3
GULF FORK BIG CREEK	COCKE	RAINBOW	ADULT	10,001	4,840	7
INDIAN CREEK	CLAIBORNE	RAINBOW	ADULT	1,350	679	5
LAUREL CREEK (CAMPBELL)	CAMPBELL	RAINBOW	ADULT	300	159	2
LITTLE RIVER	BLOUNT	RAINBOW	ADULT	10,763	5,340	11
MIDDLE PRONG PIGEON RIVER	SEVIER	RAINBOW	ADULT	9,600	4,842	12
NORRIS TW	ANDERSON	RAINBOW	ADULT	38,743	16,174	17
NORTON CREEK	SEVIER	RAINBOW	ADULT	1,000	519	2
ONEIDA CITY LAKE	SCOTT	RAINBOW	ADULT	3,000	1,071	1
PANTHER CREEK	HAMBLEN	RAINBOW	ADULT	2,450	1,273	7
PARKSVILLE RES	POLK	RAINBOW	ADULT	1,000	383	1
PICKETT LAKE	PICKETT	RAINBOW	ADULT	3,500	1,763	7
PIGEON RIVER	COCKE	RAINBOW	ADULT	27,733	4,402	2
PUNCHEONCAMP CREEK	GRAINGER	RAINBOW	ADULT	2,052	1,039	6
RICHARDSON CREEK	HANCOCK	RAINBOW	ADULT	2,148	1087	6
S HOLSTON RES	SULLIVAN	RAINBOW	ADULT	50,593	17,339	8
S HOLSTON TW	SULLIVAN	RAINBOW	FINGL	67,125	4,237	4
STATION CREEK	CLAIBORNE	RAINBOW	ADULT	800	403	5
TACKETT CREEK	CLAIBORNE	RAINBOW	ADULT	500	266	2
WILBUR TW	CARTER	RAINBOW	FINGL	89,167	4,199	1
TOTAL				364,824	83,554	164

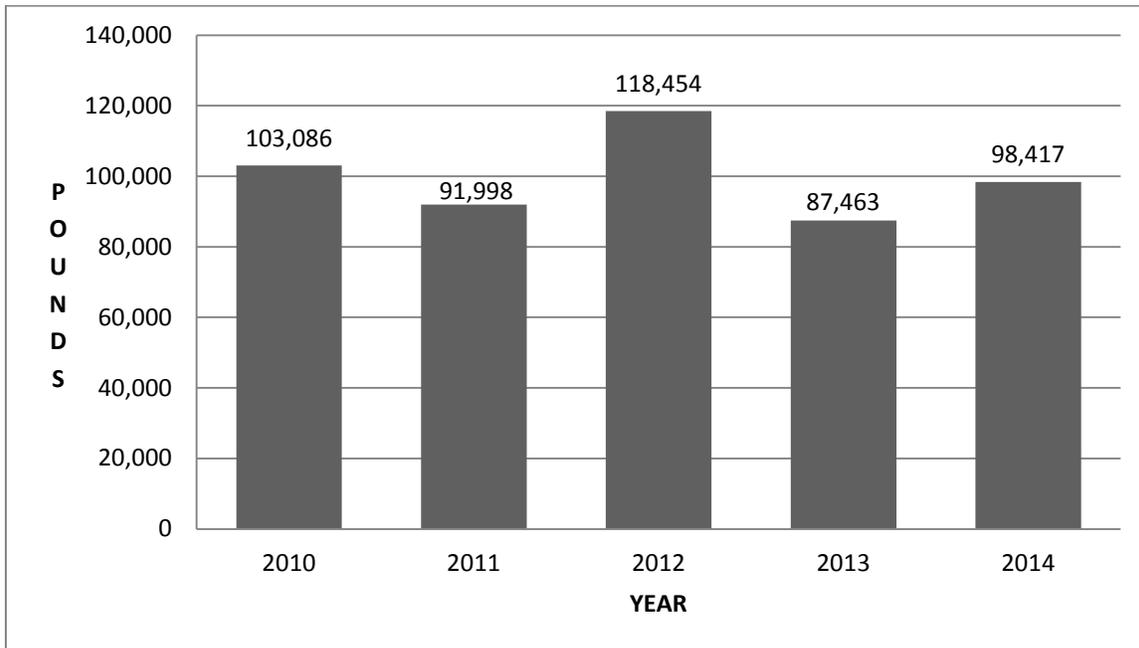


Figure 7. Net production of trout (pounds) from 2010 to 2014 at Buffalo Springs Hatchery. Net production = gross production (pounds) – start up (pounds).

Erwin State Fish Hatchery

Location: 11 acres owned by TWRA in the City of Erwin, Unicoi County.

Hatchery Operation: Water from several small springs are collected and distributed through 14 concrete, outdoor raceways. The last renovation of the raceways occurred in 1978. Each raceway is (100 ft x 6 ft). The flow rate is typically 1300 gallons per minute.

Erwin Hatchery starts its typical production cycle with 4-5 inch rainbow trout from Buffalo Springs Hatchery. These fish are received from April-June. The fish are reared in the outside raceways for up to 12 months until they are ready to be stocked into nearby streams. Typically, the adult trout stocking begins in March and lasts through June. Erwin Hatchery stocks trout with one pick-up truck that is typically driven about 15,000 miles a year. Erwin Hatchery delivers trout to about 30 waters in the surrounding seven counties, making 150 deliveries in 2014. Annually, 100,000-125,000 adult trout are delivered to area waters. Some fingerling brown and brook trout are also produced in the hatchery building, but production of other species is limited by water supply and quality.

ACCOMPLISHMENTS:

- Erwin production information (Table 7)
- Locations stocked (Table 8)

- Five-year production summary (Figure 8)

Other Activities:

- Hatched and reared approximately 175 Southern Appalachian Brook Trout
- Assisted The Tennessee Aquarium with spawning of the Southern Appalachian Brook Trout
- Assisted Tennessee Technological University with Sycamore Creek brook trout sampling.
- Assisted Erwin National Hatchery in stocking trout for an anti-drug abuse fishing tournament (“Say Yes To Fishing , No To Drugs”)
- Stocked Erwin National Trout Hatchery’s rainbow and surplus lake trout
- Maintain property, vehicles, and structures
- Replaced old raceway covers with new aluminum frames and netting
- Installed purple martin houses, which attracted adults, resulting in many reared offspring
- Hatchery tours for public (~2,000 visitors per year)
- Trout educational programs
- Assisted with Trout in the Classroom
- Kids fishing events
- Seasonally assist reservoir fish attractor program and crappie trap-netting
- Seasonally assist on bear bait surveys
- Collect & haul fish waste to a local Wildlife Management Area
- Stock trout, post signs, coordinate, for the Paint Creek Delayed Harvest season
- Commissioned Hatchery Manager assisted with Boating and Wildlife Enforcement Details

Table 7. Summary of Erwin State Fish Hatchery

Number of Trout Stocked	82,425
Pounds of Trout Stocked	34,371
Number of Stocking Trips by Erwin drivers	150
Estimated Annual Production (lbs)*	21,938
Annual Hatchery Budget (FY13/14)	\$232,737
Estimated Cost per Pound of Production (FY13/14)**	\$10.60
Estimated Cost per Pound of Trout Stocked (FY13/14)**	\$6.77

*Annual production was estimated by subtracting the total pounds stocked in 2014 by the number of pounds provided by Buffalo Springs (12,092 lbs). This estimation affects the values for both production and cost/lb.

**Cost estimates assume that all the money spent in the budget was on trout production.

Therefore, this is an overestimation.

Table 8. Total number and weight of trout stocked from Erwin State Fish Hatchery in Tennessee waters. FINGL = Fingerling 4-6 inch trout; ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
BEAVERDAM CREEK	JOHNSON	RAINBOW	ADULT	6,100	2,639	9
BRUSH CREEK	COCKE	RAINBOW	ADULT	1,600	603	5
CAMP CREEK	GREENE	RAINBOW	ADULT	4,400	1,883	8
CLARK CREEK	UNICOI	RAINBOW	ADULT	2,100	871	7
DOE CREEK	JOHNSON	RAINBOW	ADULT	2,800	1,199	9
DOE RIVER	CARTER	RAINBOW	ADULT	8,500	3,530	11
ELK RIVER (CARTER)	CARTER	RAINBOW	ADULT	1,000	446	2
FORGE CREEK	JOHNSON	RAINBOW	ADULT	1,200	503	4
HORSE CREEK	GREENE	RAINBOW	ADULT	4,500	1,930	9
LAUREL CREEK (JOHNSON)	JOHNSON	RAINBOW	ADULT	3,400	1,440	9
LAUREL FORK (CARTER)	CARTER	RAINBOW	ADULT	3,400	1,407	9
N INDIAN CREEK	UNICOI	RAINBOW	ADULT	4,500	1,976	9
PAINT CREEK	GREENE	RAINBOW	ADULT	6,600	2,734	10
PIGEON RIVER	COCKE	RAINBOW	FINGL	3,625	750	1
REEDY CREEK	SULLIVAN	RAINBOW	ADULT	1,000	385	1
ROCK CREEK	UNICOI	RAINBOW	ADULT	600	600	1
ROCKY FORK	UNICOI	RAINBOW	ADULT	4,500	1,928	9
S INDIAN CREEK	UNICOI	RAINBOW	ADULT	4,700	2,055	8
SPIVEY CREEK	UNICOI	RAINBOW	ADULT	2,100	871	7
STONY CREEK	CARTER	RAINBOW	ADULT	3,800	1,633	9
UPPER ROAN CREEK	JOHNSON	RAINBOW	ADULT	1,300	553	4
WHITETOP CREEK	SULLIVAN	RAINBOW	ADULT	1,200	500	1
WILBUR RES	CARTER	RAINBOW	ADULT	5,500	2,030	6
TOTAL				78,425	32,466	150

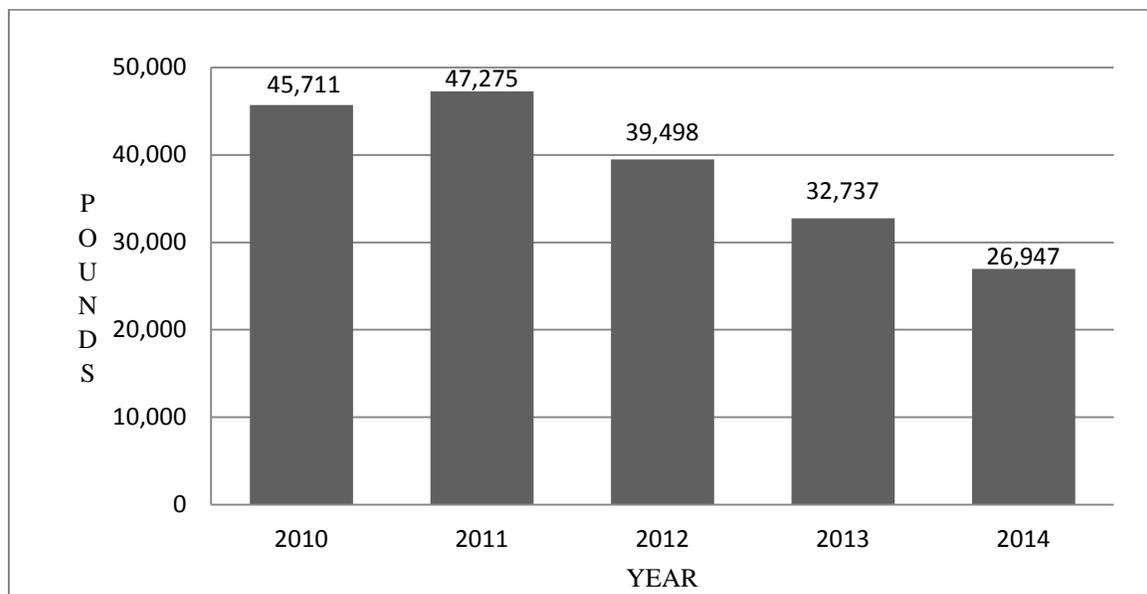


Figure 8. Net production of trout (pounds) from 2010 to 2014 at Erwin State Hatchery. A five-year average startup weight was used because of high variability among calendar year estimates. Net production = gross production (pounds) – start up (pounds).

Tellico Hatchery

Location: Hatchery is located on US Forest Service property in the Cherokee National Forest near the North Carolina border in Monroe County.

Hatchery Operation: Surface water from Tellico River, Sycamore Creek, and Pheasant Branch supply an average of 9,236 gallons per minute to outside raceways. Each of the 28 raceways is (55 ft x 8 ft). These raceways were renovated in 1992. Tellico's reliance on stream water creates seasonal and unexpected problems because staff must be prepared to remove debris from the intake structures, especially during storms.

Dale Hollow National Fish Hatchery (DHNFH) delivered 173,000 6-9 inch rainbow trout to the Tellico Hatchery in 2014. These fish will be grown out to 10-12 inches and stocked into Tellico River, Citico Creek, and Green Cove Pond. During the March to September stocking season trout are stocked weekly, resulting in high stocking rates and intense fishing pressure on these waters. A small portion of Tellico trout are stocked in Polk County streams. Tellico Hatchery received 20,000 rainbow trout to grow and stock in the Hiwassee River for the October/November delayed harvest season. Hatchery staff transports brood (18-27 inches) rainbow trout from Erwin National Hatchery to waterbodies around the Cumberland Plateau region throughout the year. In 2014 Tellico Hatchery supplied trout to 20 locations, making 279 trips.

ACCOMPLISHMENTS:

- Production information (Table 9)
- Locations stocked (Table 10)
- Five-year production summary (Figure 9)

Other Activities:

- Spawmed and hatched Southern Appalachian brook trout
- Maintain property, vehicles, and structures
- Hatchery tours to public (~50,000 visitors)
- Refurbished fiberglass hauling tank
- Repaired multiple cracks in raceways
- Installed splash boards to reduce nitrogen supersaturation
- Cleared brush around Sycamore Creek intake area
- Installed floating boom on Tellico River intake area to reduce leaf problems
- Put 6 (6 ft x 70 ft) raceways beside manager residence and one round pond back in operation
- Participated in Tellico River Clean-up
- Hosted Boy Scout troop on two occasions and assisted with merit badge completion

- Set up “living stream” exhibit and worked informational booth at Hiwassee/Ocoee State Park for Occawassee Festival for two days
- Hauled catfish for Ooltewah Youth Association Kid’s Fishing event
- Set up “living stream” exhibit and worked informational booth at USFS Eco-Days for three days
- Hosted two Trout in the Classroom groups for hatchery tours
- Partnered with Project Healing Waters to host a disabled veterans fishing event at Green Cove Pond
- Assisted with Trout Unlimited workday
- Provided trout for Kids fishing events at Spring Creek, McKamey Lake, Athens Rec. Park, Johnson City, and Tellico River
- Assisted with Tellico River Kid’s event
- Participated in Tellico Plains Christmas Parade
- Cleared brush and expanded the Green Cove Pond parking lot
- Renovated hatchery bunk room, painted, and installed HVAC
- Assisted with stream survey of Sycamore Creek, Tellico River and North River
- Manager house renovations including paint, refinish hardwood floors, install laminate flooring, replace windows, a door, install AC units, and replaced two drywall ceilings
- Installed propane tank to refill tanks on forklift

Table 9. Summary of Tellico Fish Hatchery:

Number of Trout Stocked	150,643
Pounds of Trout Stocked	94,167
Total Number of Stocking Trips	279
Estimated Annual Production (lbs)*	50,296
Annual Hatchery Budget (FY13/14)	\$229,362
Estimated Cost per Pound of Production (FY13/14)**	\$4.56
Estimated Cost per Pound of Trout Stocked**	\$2.44

* Annual production was estimated by subtracting the total pounds stocked in 2014 by the number of pounds received from Dale hollow, Buffalo Springs, and Erwin National hatcheries (43,871 lbs). This estimation affects the values for both production and cost/lb.

** Cost estimates assume that all money in the hatchery budget was spent on trout production. Therefore, this is an overestimation.

Table 10. Total number and weight of trout stocked from Tellico Fish Hatchery in Tennessee waters. ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
ATHENS CITY PARK POND	MCMINN	RAINBOW	ADULT	840	448	2
BIG LOST CREEK	POLK	RAINBOW	ADULT	1,679	848	9
CANE CREEK PARK LAKE	PUTNAM	RAINBOW	ADULT	30	78	1
CITICO CREEK	MONROE	RAINBOW	ADULT	33,175	22,096	49
CLEVELAND YMCA	BRADLEY	RAINBOW	ADULT	267	171	1
GOFORTH CREEK	POLK	RAINBOW	ADULT	1,404	719	8
GREASY CREEK	POLK	RAINBOW	ADULT	1,679	848	9
GREEN COVE POND	MONROE	BROWN	ADULT	250	118	2
GREEN COVE POND	MONROE	RAINBOW	ADULT	8,935	7,107	73
HIWASSEE TW	POLK	BROWN	ADULT	5,120	2,217	5
HIWASSEE TW	POLK	RAINBOW	ADULT	17,878	8,605	13
JOHNSON CITY FISHING DERBY	WASHINGTON	RAINBOW	ADULT	486	300	1
PARKSVILLE RES	POLK	RAINBOW	ADULT	3,046	937	2
PARKSVILLE TW	POLK	RAINBOW	ADULT	1,727	869	8
PINEY CREEK	RHEA	RAINBOW	ADULT	532	311	3
SEQUATCHIE RIVER	CUMBERLAND	RAINBOW	ADULT	10	40	1
SPRING CREEK	POLK	RAINBOW	ADULT	2,464	1,241	12
TELLICO RIVER	MONROE	BROWN	ADULT	2,565	1,116	3
TELLICO RIVER	MONROE	RAINBOW	ADULT	65,177	44,816	66
TUMBLING CREEK	POLK	BROWN	ADULT	1,250	156	1
TUMBLING CREEK	POLK	RAINBOW	ADULT	927	504	5
TURTLETOWN CREEK	POLK	RAINBOW	ADULT	702	322	4
TOTAL				150,143	93,867	278

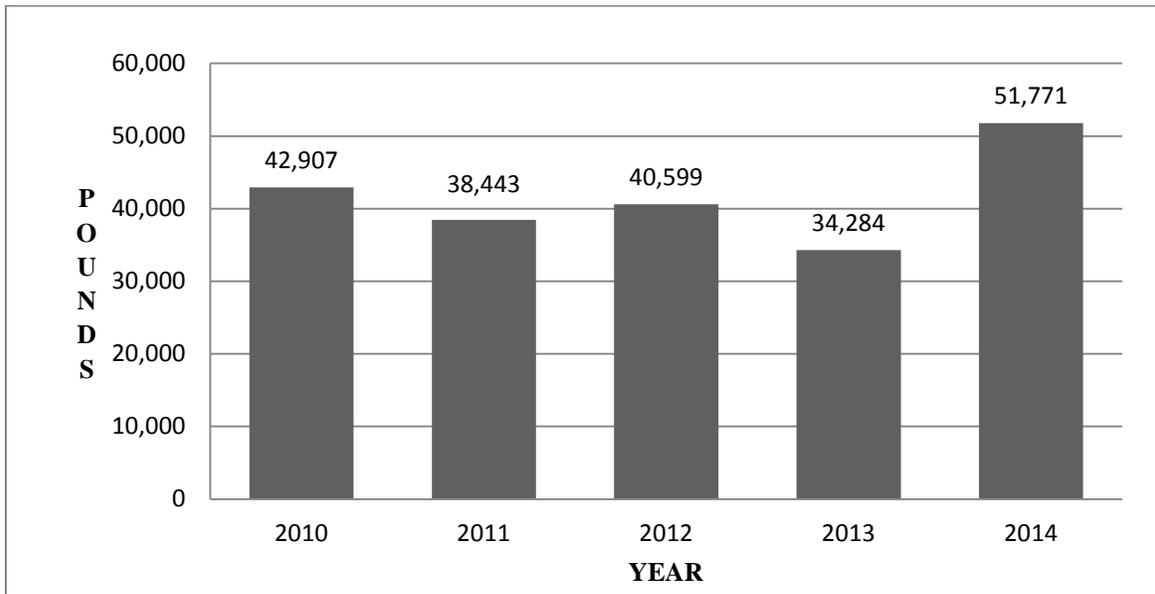


Figure 9. Net production of trout (pounds) from 2010 to 2014 at Tellico Hatchery. A five-year average startup weight was used because of high variability among calendar year estimates. Net production = gross production (pounds) – start up (pounds).

Humboldt Fish Hatchery

Location: City of Humboldt, Gibson County, Tennessee

Hatchery Operation: This hatchery is one of TWRA’s warmwater hatcheries. During winter, rainbow trout are provided by the Flintville Hatchery which are held in ponds and a raceway system on this facility until the appropriate stocking date. These trout are specifically used for the Winter Trout Stocking Program in West Tennessee.

ACCOMPLISHMENTS

- Production information (Table 11)
- Locations stocked (Table 12)
- Four-year production summary (Figure 10)
- A new raceway was constructed to hold trout for distribution

Table 11. Summary of Humboldt Fish Hatchery:

Number of Trout Stocked	11,366
Pounds of Trout Stocked	4,622
Number of Stocking Trips by Humboldt Drivers	16

Table 12. Total number and weight of trout stocked from Humboldt Fish Hatchery in Tennessee waters. ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
BEECH LAKE	HENDERSON	RAINBOW	ADULT	1,024	372	1
CAMERON BROWN LAKE	SHELBY	RAINBOW	ADULT	2,127	832	2
DAVIS PLANTATION POND	SHELBY	RAINBOW	ADULT	818	288	2
EDMUND-ORGILL PARK LAKE	SHELBY	RAINBOW	ADULT	1,776	686	2
MARTIN CITY LAKE	WEAKLEY	RAINBOW	ADULT	1,377	482	2
MUNFORD CITY PARK LAKE	TIPTON	RAINBOW	ADULT	1,768	683	2
SHELBY FARMS	SHELBY	RAINBOW	ADULT	768	320	1
UNION CITY LAKE	OBION	RAINBOW	ADULT	890	671	2
YALE ROAD CITY POND	SHELBY	RAINBOW	ADULT	818	288	2
TOTAL				11,366	4,622	16

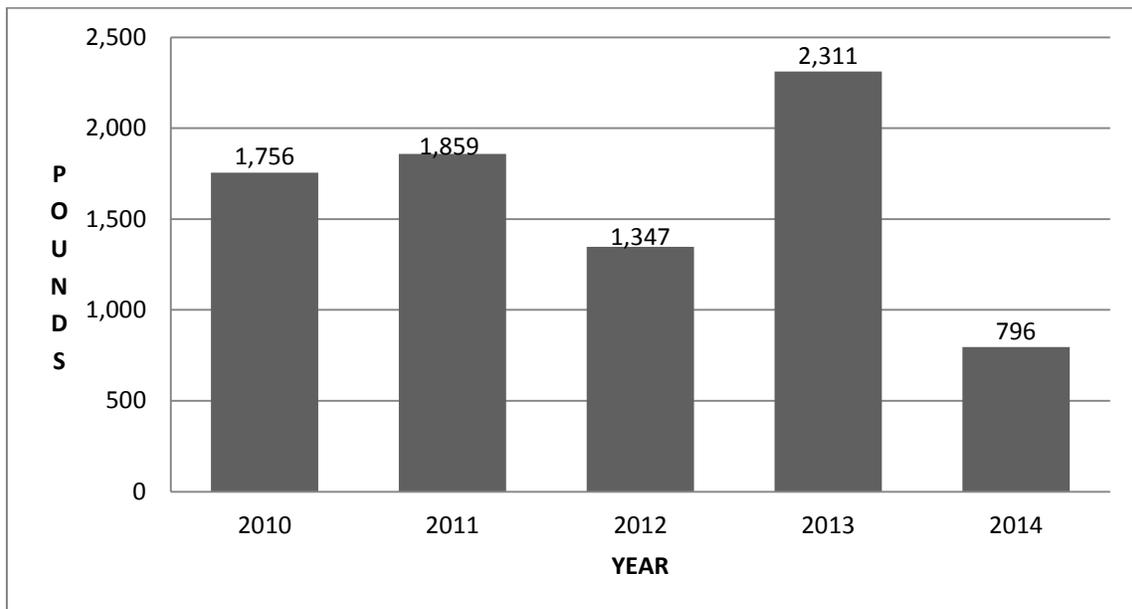


Figure 10. Net production of trout (pounds) from 2010 to 2014 at Humboldt Hatchery. A five-year average startup weight was used because of high variability among calendar year estimates. Net production = gross production (pounds) – start up (pounds).

Gatlinburg Hatchery

Location: Located in Herbert Holt Park on the North side of Gatlinburg in Sevier County.

Hatchery Operation: In 1981, the City of Gatlinburg transformed their old waste water treatment plant into a functional trout hatchery. Water from Dudley Creek is pumped into the hatchery's six raceways. In 1995, the facility was upgraded to insure an annual stocking of 30,000-35,000 rainbow trout. Fingerlings are provided by TWRA's Buffalo Springs Hatchery and are grown out to stocking size. These trout are stocked on Thursdays into 12 miles of streams in the city, No fishing is allowed on Thursdays, the stocking day.

ACCOMPLISHMENTS:

- Gatlinburg production information (Table 13)
- Locations stocked (Table 14)
- Five-year production summary (Figure 11)

Table 13. Summary of Gatlinburg Fish Hatchery:

Number of Trout Stocked	24,539
Pounds of Trout Stocked	11,547
Number of Stocking Trips by Gatlinburg Drivers	67

Table 14. Total number and weight of trout stocked from Gatlinburg Fish Hatchery in Tennessee waters. ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
LECONTE CREEK	SEVIER	RAINBOW	ADULT	860	360	14
ROARING FORK	SEVIER	RAINBOW	ADULT	1,235	605	17
W PRONG LITTLE PIGEON RIVER	SEVIER	RAINBOW	ADULT	22,444	10,582	36
TOTAL				24,539	11,547	67

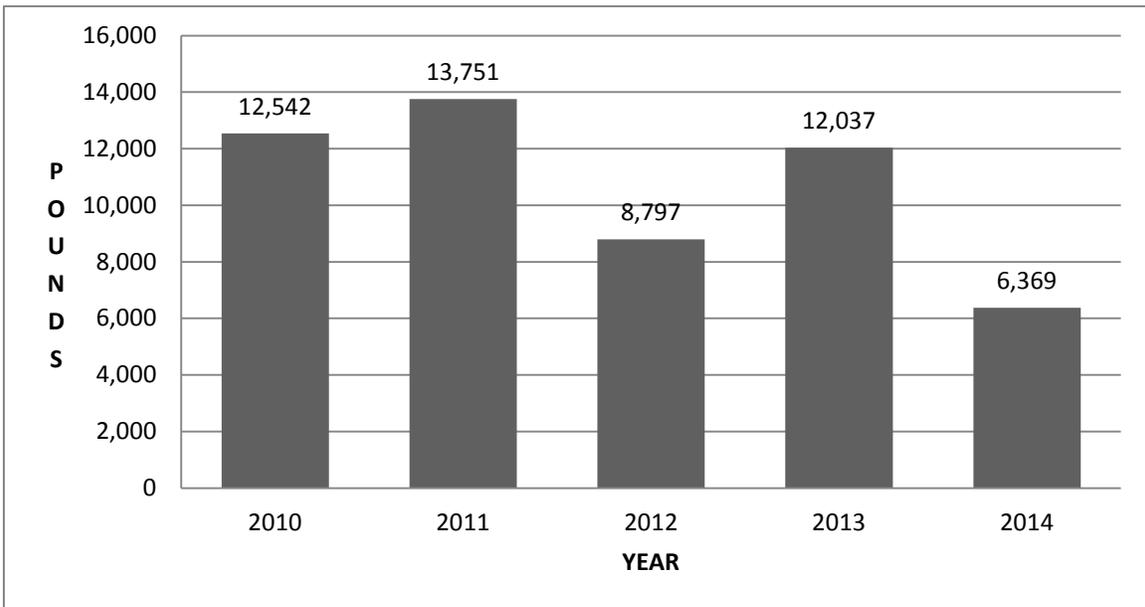


Figure 11. Net production of trout (pounds) from 2010 to 2014 at Gatlinburg Hatchery. A five-year average startup weight was used because of high variability among calendar year estimates. Net production = gross production (pounds) – start up (pounds).

Dale Hollow National Fish Hatchery (DHNFH) - USFWS

Location: Celina, Tennessee, below Dale Hollow Reservoir.

Hatchery Operation: This hatchery is owned and operated by the USFWS. This hatchery produces most of its fish for Tennessee, but they also supply fish to North Carolina and Alabama.

TWRA coordinates DHNFH’s Tennessee stocking. This process involves the Fisheries Division, Regional Fisheries Managers, and the full-time driver at Buffalo Springs

Hatchery. DHNFH provides trout to Tennessee for two reasons: 1) to mitigate for the loss of local fisheries caused by federal dams, and 2) because TWRA paid for the expansion of this hatchery in 1992. Since 1994, TWRA pays \$100,000 annually to maintain production of an additional 100,000 lbs of trout to be used in Tennessee.

Dale Hollow Hatchery is much larger than TWRA hatcheries, producing over half of the trout stocked in Tennessee. DHNFH's water source is Dale Hollow Reservoir. It has 1,600 ft of 4-ft raceways for rearing small trout and 8,800 ft of 8-ft raceways for rearing larger trout. Eggs are provided from a variety of hatcheries through the USFWS egg distribution system. Unlike TWRA hatcheries, DHNFH routinely raises brown and lake trout in addition to rainbow and brook trout. TWRA hatcheries have not been successful at rearing brown and lake trout due to their limited space and water supply.

DHNFH uses two stocking trucks and help from the full-time driver from Buffalo Springs Hatchery to stock reservoirs, tailwaters, and Winter Trout Program locations. Occasionally, other TWRA hatchery trucks and personnel are used to transport trout to stocking sites and to the Humboldt Hatchery for future stocking. DHNFH does not typically stock smaller streams. DHNFH supplied approximately 173,000 trout to TWRA's Tellico Hatchery in 2014.

ACCOMPLISHMENTS

- Dale Hollow production information (Table 15)
- Five-year production summary (Figure 12)
- Locations stocked (Table 16)

Other Tennessee Activities:

- Hatchery tours to public
- Kids fishing events and Biologist-in-Training Program for fourth and fifth grade students
- Grow-out and distribution of Barren's topminnow (Federally Endangered Species)
- Cooperates with TWRA on trout stocking evaluations

Table 15. Summary of Dale Hollow National Fish Hatchery:

Number of Trout Stocked	1,645,101
Pounds of Trout Stocked	312,079
Pounds Provided to Tellico Hatchery	38,964
Number of Stocking Trips by DHNFH	388
Number of Stocking Trips by TWRA	131
Annual Production for Tennessee (by contract)	100,000
Est. Annual cost to TWRA for 100,000 pounds*	\$175,911
TWRA's cost/lb to contract 100,000 pounds	\$1.76

* \$100,000 contract plus cost of driver and hauling truck at Buffalo Springs Hatchery.

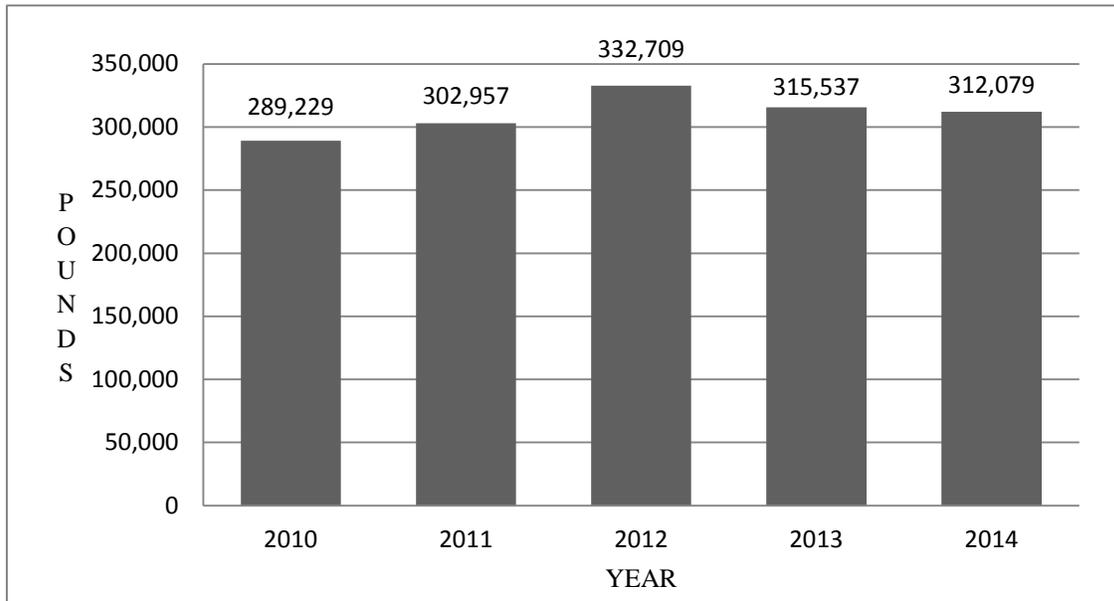


Figure 12. Pounds of trout produced for Tennessee from 2010 to 2014 at Dale Hollow NFH.

Table 16. Total number and weight of trout stocked from Dale Hollow NFH in Tennessee waters. FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of
						Stocking Trips
A THENS CITY PARK POND	MCMINN	RAINBOW	ADULT	2,000	729	2
BALD RIVER	MONROE	BROWN	ADULT	2,500	313	1
BOONE TW	SULLIVAN	BROWN	ADULT	5,000	855	1
BOONE TW	SULLIVAN	BROOK	ADULT	8,500	2,238	2
CALDERWOOD RES	BLOUNT	RAINBOW	ADULT	4,003	1,328	2
CANE CREEK PARK LAKE	PUTNAM	RAINBOW	ADULT	4,995	1,703	3
CENTER HILL TW	DEKALB	BROOK	ADULT	28,155	9,665	13
CENTER HILL TW	DEKALB	BROWN	FINGL	56,368	2,749	4
CENTER HILL TW	DEKALB	BROWN	ADULT	46,933	8,378	12
CENTER HILL TW	DEKALB	RAINBOW	ADULT	111,221	35,805	51
CHEROKEE TW	GRAINGER	BROWN	ADULT	15,115	2,726	2
CHEROKEE TW	GRAINGER	RAINBOW	ADULT	25,176	7,966	6
CHILHOWEE RES	BLOUNT	RAINBOW	FINGL	19,013	5,919	5
DALE HOLLOW RES	CLAY	BROWN	FINGL	25,030	2,367	3
DALE HOLLOW RES	CLAY	RAINBOW	ADULT	76,581	23,171	28
DALE HOLLOW TW	CLAY	BROOK	ADULT	5,004	1,317	1
DALE HOLLOW TW	CLAY	BROWN	ADULT	5,014	860	1
DALE HOLLOW TW	CLAY	RAINBOW	ADULT	57,253	18,716	58
FORT CAMPBELL	MONTGOMERY	RAINBOW	ADULT	2,407	698	3
FORT PATRICK HENRY RES	SULLIVAN	RAINBOW	ADULT	4,008	1,130	1
FORT PATRICK HENRY RES	SULLIVAN	BROWN	ADULT	2,500	437	1
FORT PATRICK HENRY TW	SULLIVAN	BROWN	ADULT	22,507	4,102	3
FORT PATRICK HENRY TW	SULLIVAN	RAINBOW	ADULT	10,525	3,453	4
HIWASSEE TW	POLK	BROWN	ADULT	9,997	1,416	1
HIWASSEE TW	POLK	BROWN	FINGL	20,042	869	1
HIWASSEE TW	POLK	RAINBOW	ADULT	66,834	20,844	15
HIWASSEE TW	POLK	BROOK	ADULT	3,275	1,552	1
JPERCYPRIEST TW	DAVIDSON	RAINBOW	ADULT	14,007	4,687	4
LAFALETTE CITY PARK LAKE	MACON	RAINBOW	ADULT	1,512	535	2
LAKE JUNIOR	HAMILTON	RAINBOW	ADULT	5,010	1,656	2
MCKAMEY LAKE	POLK	RAINBOW	ADULT	500	144	1
MCKENZIE CITY PARK LAKE	CARROLL	RAINBOW	ADULT	1,031	351	1
NORMANDY TW	BEDFORD	RAINBOW	ADULT	21,054	6,770	12
NORRIS TW	ANDERSON	BROOK	ADULT	20,000	5,572	2
NORRIS TW	ANDERSON	BROWN	FINGL	20,013	706	1
NORRIS TW	ANDERSON	BROWN	ADULT	20,007	3,277	3
NORRIS TW	ANDERSON	RAINBOW	FINGL	198,069	5,750	9
NORTH RIVER	MONROE	BROWN	ADULT	3,109	390	1
PARIS CITY PARK	HENRY	RAINBOW	ADULT	499	170	1
PARKSVILLE RES	POLK	BROWN	FINGL	7,005	723	1
PICKETT LAKE	PICKETT	RAINBOW	ADULT	1,004	388	1
S HOLSTON RES	SULLIVAN	LAKE	FINGL	143,208	5,373	9
S HOLSTON RES	SULLIVAN	BROWN	FINGL	25,067	2,459	3
S HOLSTON RES	SULLIVAN	RAINBOW	ADULT	5,046	1,582	1
S HOLSTON TW	SULLIVAN	RAINBOW	ADULT	42,550	11,754	11
TELLICO RES	MONROE	RAINBOW	ADULT	5,008	1,595	1
TELLICO RES	BLOUNT	RAINBOW	ADULT	998	316	1
TIMS FORD TW	FRANKLIN	BROOK	ADULT	3,003	1,032	1
TIMS FORD TW	FRANKLIN	BROWN	ADULT	15,008	2,653	4
TIMS FORD TW	FRANKLIN	BROWN	FINGL	4,994	688	1
TIMS FORD TW	FRANKLIN	RAINBOW	ADULT	38,031	12,278	18
TURTLETOWN CREEK	POLK	BROWN	ADULT	1,250	156	1

Table 16. (continued)

W FORK STONES RIVER	RUTHERFORD	RAINBOW	ADULT	8,030	2,791	6
WATAUGA RES	CARTER	BROWN	FINGL	25,049	2,425	4
WATAUGA RES	CARTER	RAINBOW	ADULT	48,528	14,999	10
WATAUGA RES	CARTER	LAKE	FINGL	83,327	2,704	3
WILBUR RES	CARTER	BROWN	FINGL	5,072	555	1
WILBUR TW	CARTER	BROWN	ADULT	19,998	3,419	3
WILBUR TW	CARTER	RAINBOW	ADULT	41,100	12,400	11
WOLF RIVER	FENTRESS	BROWN	ADULT	756	249	1
WOLF RIVER	FENTRESS	RAINBOW	ADULT	1,505	494	2
TOTAL				1,470,304	272,347	358

Erwin National Fish Hatchery - USFWS

Location: City of Erwin, Unicoi County, Tennessee.

Hatchery Operation: Erwin National Fish Hatchery (ENFH) is one of several broodstock facilities managed by the USFWS across the country. These facilities maintain a disease-free source of eggs for federal and state fish hatcheries. These hatcheries raise trout to maturity (over 2 years), then use these trout to produce fertilized eggs that are sent around the country as requested. They use some of the eggs to replace the adults that have already been used for spawning. The fish that are no longer useful for egg production are stocked into a few nearby streams and other locations requested by TWRA. The ENFH is also provides a number of these fish to the Cherokee Nation in Cherokee, North Carolina.

The trout stocked by ENFH are large, usually 14 to 20 inches in length, so local anglers are pleased to catch these fish. Erwin State Fish Hatchery often stocks these fish for ENFH. TWRA's involvement allows these fish to be spread over more locations.

ACCOMPLISHMENTS

- Production information (Table 17)
- Locations stocked (Table 18)
- Five year production summary (Figure 13)

Table 17. Summary of Erwin National Fish Hatchery:

Number of Trout Stocked	25,561
Pounds of Trout Stocked	30,303
Number of Stocking Trips by Erwin Drivers	38

Table 18. Total number and weight of trout stocked from Erwin National Fish Hatchery in Tennessee waters. FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 12 inches.*

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips*
BUFFALO CREEK	GRAINGER	RAINBOW	ADULT	650	1723	2
DILLARD PONDS	GREENE	RAINBOW	ADULT	300	756	1
FORT PATRICK HENRY RES	SULLIVAN	RAINBOW	ADULT	400	940	1
FORT PATRICK HENRY RES	SULLIVAN	RAINBOW	FINGL	5,885	155	1
HIWASSEE TW	POLK	RAINBOW	ADULT	300	756	1
JOHNSON CITY FISH DERBY	WASHINGTON	RAINBOW	ADULT	1,350	1,914	2
LITTLE RIVER	BLOUNT	RAINBOW	ADULT	330	875	1
MIDDLE PRONG PIGEON RIVER	SEVIER	RAINBOW	ADULT	320	848	1
N INDIAN CREEK	UNICOI	RAINBOW	ADULT	450	1,134	1
N INDIAN CREEK	UNICOI	RAINBOW	FINGL	4,569	107	1
NOLICHUCKY RIVER	UNICOI	RAINBOW	ADULT	3,100	7,857	7
PAINT CREEK	GREENE	RAINBOW	ADULT	1,040	2,636	5
ROCK CREEK	UNICOI	RAINBOW	ADULT	595	1,398	2
S INDIAN CREEK	UNICOI	RAINBOW	ADULT	1,248	1,444	2
NORMANDY TW	BEDFORD	RAINBOW	ADULT	350	882	1
WILBUR RES	CARTER	RAINBOW	ADULT	1,229	2,948	3
TOTAL				22,116	26,373	32

*Includes some trips made by Erwin State Fish Hatchery.

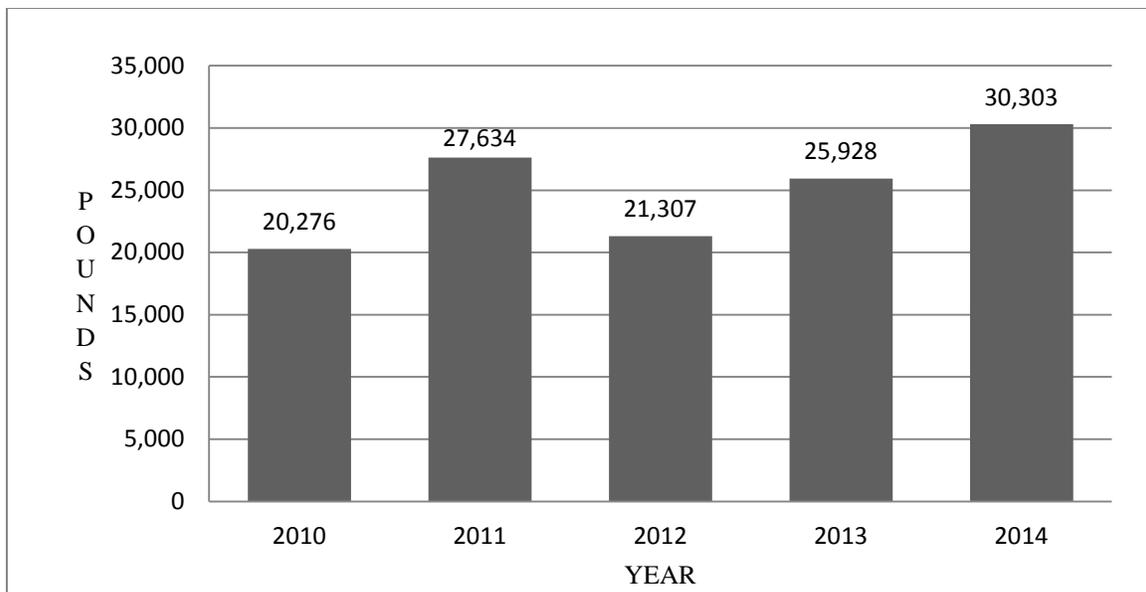


Figure 13. Production of trout (pounds) stocked in Tennessee from 2010 to 2014 by Erwin National Fish Hatchery.

Appendix A

Stocking Totals by Program Type (Includes all State and Federal Hatcheries)

Tailwater Stocking Totals -2014

FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
BOONE TW	SULLIVAN	BROOK	ADULT	8,505	2,238	2
BOONE TW	SULLIVAN	BROWN	ADULT	5,000	855	1
CENTER HILL TW	DEKALB	BROOK	ADULT	28,155	9,665	13
CENTER HILL TW	DEKALB	BROWN	FINGL	56,368	2,749	4
CENTER HILL TW	DEKALB	BROWN	ADULT	46,933	8,378	12
CENTER HILL TW	DEKALB	RAINBOW	ADULT	111,221	35,805	51
CHEROKEE TW	GRAINGER	BROWN	ADULT	15,115	2,726	2
CHEROKEE TW	GRAINGER	RAINBOW	ADULT	37,235	9,939	8
DALE HOLLOW TW	CLAY	RAINBOW	ADULT	57,253	18,716	58
DALE HOLLOW TW	CLAY	BROWN	ADULT	5,014	860	1
DALE HOLLOW TW	CLAY	BROOK	ADULT	5,004	1,317	1
FORT PATRICK HENRY TW	SULLIVAN	BROWN	ADULT	22,507	4,102	3
FORT PATRICK HENRY TW	SULLIVAN	RAINBOW	FINGL	7,508	479	1
FORT PATRICK HENRY TW	SULLIVAN	RAINBOW	ADULT	10,525	3,453	4
HIWASSEE TW	POLK	RAINBOW	ADULT	85,012	30,205	9
HIWASSEE TW	POLK	BROWN	ADULT	15,117	3,633	6
HIWASSEE TW	POLK	BROWN	FINGL	20,042	869	1
HIWASSEE TW	POLK	BROOK	ADULT	3,275	1,552	1
J. PERCY PRIEST	DAVIDSON	RAINBOW	ADULT	14,007	4,687	4
NORMANDY TW	BEDFORD	RAINBOW	ADULT	21,404	7,652	13
NORRIS TW	ANDERSON	RAINBOW	FINGL	198,069	5,750	9
NORRIS TW	ANDERSON	RAINBOW	ADULT	38,743	16,174	17
NORRIS TW	ANDERSON	BROWN	ADULT	20,007	3,277	3
NORRIS TW	ANDERSON	BROWN	FINGL	20,013	706	1
NORRIS TW	ANDERSON	BROOK	ADULT	20,000	5,572	4
PARKSVILLE TW	POLK	RAINBOW	ADULT	1,727	869	8
S HOLSTON TW	SULLIVAN	RAINBOW	FINGL	67,125	4,237	4
S HOLSTON TW	SULLIVAN	RAINBOW	ADULT	42,550	11,754	11
TIMS FORD TW	FRANKLIN	BROOK	ADULT	3,003	1,032	1
TIMS FORD TW	FRANKLIN	BROWN	ADULT	15,008	2,653	4
TIMS FORD TW	FRANKLIN	BROWN	FINGL	4,994	688	1
TIMS FORD TW	FRANKLIN	RAINBOW	ADULT	38,031	12,278	18
WILBUR TW	CARTER	RAINBOW	ADULT	41,100	12,400	11
WILBUR TW	CARTER	BROWN	ADULT	19,998	3,419	3
WILBUR TW	CARTER	RAINBOW	FINGL	89,167	4,199	5
TOTAL				1,194,735	234,888	295

Reservoir Stocking Totals – 2014*

FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

						Number of
					Weight	Stocking
Water Stocked	County	Species	Stage	Number	(lbs.)	Trips
CALDERWOOD RES	BLOUNT	RAINBOW	ADULT	7,007	1,998	3
CHILHOWEE RES	BLOUNT	RAINBOW	ADULT	16,344	4,850	4
DALE HOLLOW RES	CLAY	RAINBOW	ADULT	76,581	23,171	28
DALE HOLLOW RES	CLAY	BROWN	FINGL	25,030	2,367	3
FORT PATRICK HENRY RES	SULLIVAN	BROWN	ADULT	2,500	437	1
FORT PATRICK HENRY RES	SULLIVAN	RAINBOW	ADULT	8,601	3,067	3
FORT PATRICK HENRY RES	SULLIVAN	RAINBOW	FINGL	5,885	155	1
PARKSVILLE RES	POLK	BROWN	FINGL	7,005	723	1
PARKSVILLE RES	POLK	RAINBOW	ADULT	3,046	937	2
S HOLSTON RES	SULLIVAN	RAINBOW	ADULT	70,152	23,518	12
S HOLSTON RES	SULLIVAN	LAKE	FINGL	143,208	5,764	9
S HOLSTON RES	SULLIVAN	BROWN	FINGL	27,867	4,459	4
TELLICO RES	MONROE	RAINBOW	ADULT	6,006	1,911	2
WATAUGA RES	CARTER	RAINBOW	ADULT	51,135	15,348	10
WATAUGA RES	CARTER	LAKE	FINGL	83,327	2,704	3
WATAUGA RES	CARTER	BROWN	FINGL	25,049	2,425	2
WILBUR RES	CARTER	BROWN	FINGL	5,072	555	1
WILBUR RES	CARTER	RAINBOW	ADULT	6,729	4,978	9
TOTAL				570,544	99,367	98

* Above totals are used to show which reservoirs were stocked in the 2014 calendar year.

However, reservoirs are stocked December through January, depending on weather and size of trout, therefore calendar year totals can be misleading. For example, TWRA could stock a reservoir in December, and then stock it 13 months later in the following January. From a calendar year perspective, it would appear that TWRA skipped a year, when in fact each winter that reservoir received similar numbers of trout.

Streams and Lakes Stocked in Spring and Summer – 2014

FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
ALEXANDER CREEK	HAWKINS	RAINBOW	ADULT	2,000	969	6
ATHENS CITY PARK	MCMINN	RAINBOW	ADULT	840	448	2
BARREN FORK RIVER	WARREN	RAINBOW	ADULT	1,514	690	3
BATTLE CREEK	MARION	RAINBOW	ADULT	1,097	495	3
BEAVERDAM CREEK	JOHNSON	RAINBOW	ADULT	6,100	2,639	9
BIG CREEK	HAWKINS	RAINBOW	ADULT	2,500	1,312	5
BIG LOST CREEK	POLK	RAINBOW	ADULT	1,679	848	9
BRUSH CREEK	COOKE	RAINBOW	ADULT	1,600	603	5
BUFFALO CREEK	GRAINGER	RAINBOW	ADULT	7,741	5,373	30
CALFKILLER RIVER	PUTNAM	RAINBOW	ADULT	1,539	665	3
CAMP CREEK	GREENE	RAINBOW	ADULT	4,400	1,883	9
CANE CREEK	HICKMAN	RAINBOW	ADULT	742	353	4
CANE CREEK	PERRY	RAINBOW	ADULT	2,055	966	4
CANE CREEK	VANBURREN	RAINBOW	ADULT	2,339	1,105	3
CHARLES CREEK	WARREN	RAINBOW	ADULT	886	395	3
CITICO CREEK	MONROE	RAINBOW	ADULT	33,175	22,096	49
CLARK CREEK	UNICOI	RAINBOW	ADULT	2,100	871	7
COLINS RIVER	GRUNDY	RAINBOW	ADULT	3,006	1,365	3
COSBY CREEK	COOKE	RAINBOW	ADULT	4,500	2,412	9
DOE CREEK	JOHNSON	RAINBOW	ADULT	2,800	1,199	9
DOE RIVER	CARTER	RAINBOW	ADULT	8,500	3,530	11
E FORK SHOAL CREEK	LAWRENCE	RAINBOW	ADULT	2,227	1,077	6
ELK RIVER	CARTER	RAINBOW	ADULT	1,000	446	2
ELK RIVER	GRUNDY	RAINBOW	ADULT	584	270	2
FLAT FORK CREEK	MORGAN	RAINBOW	ADULT	1,500	776	3
FL YNNS LICK CREEK	JACKSON	RAINBOW	ADULT	1,049	495	3
FORGE CREEK	JOHNSON	RAINBOW	ADULT	1,200	503	4
FORT CAMPBELL	MONTGOMERY	RAINBOW	ADULT	2,407	698	3
GAP CREEK	CLAIBORNE	RAINBOW	ADULT	1,500	768	3
GOFORTH CREEK	POLK	RAINBOW	ADULT	1,404	719	8
GREASY CREEK	POLK	RAINBOW	ADULT	1,679	848	9
GREEN COVE POND	MONROE	BROWN	ADULT	250	118	2
GREEN COVE POND	MONROE	RAINBOW	ADULT	8,935	7,107	73
GULF FORK BIG CREEK	COOKE	RAINBOW	ADULT	10,001	4,840	7
HORSE CREEK	GREENE	RAINBOW	ADULT	4,500	1,930	9
HURRICANE CREEK	HOUSTON	RAINBOW	ADULT	1,271	570	2
HURRICANE CREEK	HUMPHREYS	RAINBOW	ADULT	3,017	1,280	3
INDIAN CREEK	CLAIBORNE	RAINBOW	ADULT	1,350	679	5
LAUREL CREEK	JOHNSON	RAINBOW	ADULT	3,400	1,440	9
LAUREL CREEK	VANBURREN	RAINBOW	ADULT	801	380	3
LAUREL FORK	CAMPBELL	RAINBOW	ADULT	300	159	2
LAUREL FORK	CARTER	RAINBOW	ADULT	3,400	1,407	9
LITTLE BUFFALO RIVER	LAWRENCE	RAINBOW	ADULT	3,157	1,390	4
LITTLE RIVER	BLOUNT	RAINBOW	ADULT	11,093	6,215	12
LITTLE SEQUATCHIE RIVER	MARION	RAINBOW	ADULT	2,119	940	3
MCK AMEY LAKE	POLK	RAINBOW	ADULT	500	144	1
MIDDLE PRONG PIGEON RIVER	SEVIER	RAINBOW	ADULT	9,920	5,690	13
MILL CREEK	HICKMAN	RAINBOW	ADULT	3,312	1,520	4
MOUNTAIN CREEK	WARREN	RAINBOW	ADULT	517	225	2

Streams and Lakes Stocked in Spring and Summer – 2014 (Continued)

N BARREN FORK CREEK	WARREN	RAINBOW	ADULT	1,136	530	3
N CHICKAMAUGA CREEK	HAMILTON	RAINBOW	ADULT	669	300	3
N INDIAN CREEK	UNICOI	RAINBOW	ADULT	4,950	3,110	10
N INDIAN CREEK	UNICOI	RAINBOW	FINGL	4,569	107	1
NOLICHUCKY RIVER	UNICOI	RAINBOW	ADULT	3,100	7,857	7
PAINT CREEK	GREENE	RAINBOW	ADULT	6,600	2,734	10
PANTHER CREEK	HAMBLEM	RAINBOW	ADULT	2,450	1,273	7
PICKETT LAKE	PICKETT	RAINBOW	ADULT	4,504	2,151	8
PIGEON RIVER	COCKE	RAINBOW	ADULT	27,733	4,402	2
PIGEON RIVER	COCKE	RAINBOW	FINGL	3,625	750	1
PINE CREEK	DEKALB	RAINBOW	ADULT	1,554	715	3
PINEY CREEK	RHEA	RAINBOW	ADULT	2,092	1,021	6
POCKET CREEK	MADISON	RAINBOW	ADULT	1,342	585	3
PUNCHEONCAMP REEK	GRAINGER	RAINBOW	ADULT	2,052	1,039	6
RICHARDSON CREEK	HANCOCK	RAINBOW	ADULT	2,148	1,087	6
ROCKY FORK	UNICOI	RAINBOW	ADULT	4,500	1,928	9
ROCKY RIVER	VANBURREN	RAINBOW	ADULT	934	435	3
S INDIAN CREEK	UNICOI	RAINBOW	ADULT	5,948	3,499	10
SALT LICK CREEK	MACON	RAINBOW	ADULT	712	340	2
SEQUATCHIE RIVER	CUMBERLAND	RAINBOW	ADULT	1,549	705	4
SINK CREEK	DEKALB	RAINBOW	ADULT	1,064	460	3
SPIVEY CREEK	UNICOI	RAINBOW	ADULT	2,100	871	7
SPRING CREEK	POLK	RAINBOW	ADULT	2,464	1,241	12
STANDING ROCK CREEK	STEWART	RAINBOW	ADULT	880	395	2
STANDING STONE LAKE	OVERTON	RAINBOW	ADULT	430	215	1
STATION CREEK	CLAIBORNE	RAINBOW	ADULT	800	403	5
STONY CREEK	CARTER	RAINBOW	ADULT	3,800	1,633	9
SWEETEN CREEK	MARION	RAINBOW	ADULT	1,161	535	3
TACKETT CREEK	CLAIBORNE	RAINBOW	ADULT	500	266	2
TELLICO RIVER	MONROE	RAINBOW	ADULT	62,202	42,078	59
TOWN CREEK	MARION	RAINBOW	ADULT	542	235	3
TUMBLING CREEK	POLK	BROWN	ADULT	1,250	156	1
TUMBLING CREEK	HUMPHREYS	RAINBOW	ADULT	2,017	855	3
TUMBLING CREEK	POLK	RAINBOW	ADULT	927	504	5
TURTLETOWN CREEK	POLK	BROWN	ADULT	1,250	156	1
TURTLETOWN CREEK	POLK	RAINBOW	ADULT	702	322	4
UPPER HILLS	WARREN	RAINBOW	ADULT	815	375	2
UPPER ROAN CREEK	JOHNSON	RAINBOW	ADULT	1,300	553	4
WHITE OAK CREEK	HOUSTON	RAINBOW	ADULT	880	395	2
WOLF RIVER	FENTRESS	BROWN	ADULT	756	249	1
WOLF RIVER	FENTRESS	RAINBOW	ADULT	1,505	494	2
TOTAL				343,018	179,810	627

Winter Trout Program Stocking – 2014

FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

Water Stocked	County	Species	Stage	Number	Weight (lbs.)	Number of Stocking Trips
ATHENS CITY PARK POND	MCMINN	RAINBOW	ADULT	2,000	729	2
BEECH LAKE	HENDERSON	RAINBOW	ADULT	2,303	1,002	5
BIG ROCK CREEK	MARSHALL	RAINBOW	ADULT	747	389	4
BILLY DUNLAP PARK	MONTGOMERY	RAINBOW	ADULT	1,293	701	4
CAMERON BROWN LAKE	SHELBY	RAINBOW	ADULT	2,127	832	2
CANE CREEK PARK LAKE	PUTNAM	RAINBOW	ADULT	5,025	1,781	4
COWAN CITY PARK	FRANKLIN	RAINBOW	ADULT	1,095	529	5
DAVIS PLANTATION PARK	SHELBY	RAINBOW	ADULT	818	288	2
DUCK RIVER RIVERSIDE DAM	MAURY	RAINBOW	ADULT	1,554	772	3
DUCK RIVER FISHERMANS PARK	BEDFORD	RAINBOW	ADULT	777	364	2
EDMUND-ORGILL PARK LAKE	SHELBY	RAINBOW	ADULT	1,776	686	2
HARPEL RIVER	WILLIAMSON	RAINBOW	ADULT	4,223	2,022	6
J D BUCKNER LAKE	DICKSON	RAINBOW	ADULT	1,339	637	4
J PERCY PRIEST TW	DAVIDSON	RAINBOW	ADULT	14,007	4,687	4
JOHNSON PARK LAKE	SHELBY	RAINBOW	ADULT	2,046	962	4
KINGSTON SPRINGS LAKE	CHEATHAM	RAINBOW	ADULT	770	372	4
LAFAYETTE CITY PARK LAKE	MACON	RAINBOW	ADULT	1,512	535	2
LAKE GRAHAM	MADISON	RAINBOW	ADULT	2,857	1,457	5
LAKE JUNIOR	HAMILTON	RAINBOW	ADULT	5,010	1,656	2
MARROWBONE LAKE	DAVIDSON	RAINBOW	ADULT	3,097	1,457	4
MARTIN CITY LAKE	WEAKLEY	RAINBOW	ADULT	1,377	482	2
MCCUTCHEON CREEK	MAURY	RAINBOW	ADULT	1,853	897	6
MCKENZIE CITY LAKE	CARROLL	RAINBOW	ADULT	1,031	351	1
MUNFORD CITY PARK LAKE	TIPTON	RAINBOW	ADULT	1,768	683	2
ONEIDA CITY LAKE	SCOTT	RAINBOW	ADULT	3,000	1,071	1
PARIS CITY LAKE	HENRY	RAINBOW	ADULT	499	170	1
SHELBY FARMS	SHELBY	RAINBOW	ADULT	768	320	1
SHELBY PARK LAKE	DAVIDSON	RAINBOW	ADULT	4,527	2,115	4
STONE BRIDGE PARK	LINCOLN	RAINBOW	ADULT	652	342	4
SULPHUR FORK CREEK	ROBERTSON	RAINBOW	ADULT	1,032	533	4
UNION CITY LAKE	OBION	RAINBOW	ADULT	890	671	2
W FORK STONES RIVER	RUTHERFORD	RAINBOW	ADULT	9,496	3,537	10
YALE ROAD CITY POND	SHELBY	RAINBOW	ADULT	818	288	2
TOTAL				82,087	33,318	110

Delayed-Harvest Program – 2014

FINGL = Fingerling, 4-6 inch trout; ADULT = trout > 9 inches.

					Weight	Number of
Water Stocked	County	Species	Stage	Number	(lbs.)	Stocking Trips
HIWASSEE TW	POLK	RAINBOW	ADULT	39,024	15,662	17
HIWASSEE TW	POLK	BROOK	ADULT	3,275	1,552	1
HIWASSEE TW	POLK	BROWN	ADULT	4,403	1,917	4
HIWASSEE TW	POLK	BROWN	FINGL	20,042	869	1
PAINT CREEK	GREENE	RAINBOW	ADULT	1,040	2,636	5
TELLICO RIVER	MONROE	BROWN	ADULT	2,565	1,116	3
TELLICO RIVER	MONROE	RAINBOW	ADULT	2,975	2,738	7
TOTAL				73,324	26,490	38