

## **Distribution**

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**PA FISH AND BOAT COMMISSION  
COMMENTS AND RECOMMENDATIONS**

February 22, 2018~~June 19, 2014~~~~August 28, 2013~~

**WATER:** Salt Lick Run (309C) Centre County

**EXAMINED:** July 27, 2012

**BY:** D. Kristine, J. Keslar, H. Ausherman

Bureau Director Action: \_\_\_\_\_ Date: \_\_\_\_\_

Division Chief Action: \_\_\_\_\_ Date: \_\_\_\_\_

CW Unit Leader Action: \_\_\_\_\_ Date: \_\_\_\_\_

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**AREA COMMENTS:** Salt Lick Run is a small, remote, coldwater stream near the town of Monument, Centre County, which was found to support an exceptional, allopatric wild brook trout population during a 2012 survey. Multiple age-classes of brook trout were present including a good abundance of legal-size fish. Results of the 2012 survey estimated the total biomass of wild brook trout at 53.51 kg/ha which met the minimum biomass criteria for Class A designation. Ten percent of the stream was sampled.

**AREA RECOMMENDATIONS:**

1. Add Salt Lick Run, Section 01 (from the headwaters to the mouth), to the Commission's Class A Wild Trout Streams program.
2. Manage Salt Lick Run, Section 01, as a Class A Wild Trout Stream under Commonwealth Inland Waters regulations with no stocking.
3. Add Salt Lick Run, Section 01, to the Commission's Wilderness Trout Streams Program.
3. Request the Department of Environmental Protection designate the entire length of Salt Lick Run as High-Quality Cold Water Fishes and Migratory Fishes (HQ-CWF, MF) under 25 PA Code Chapter 93 based on the Class A qualifier found in 93.4b(2)(ii).
4. If Salt Lick Run is subsequently added to the Commission's Wilderness Trout Streams Program, request the Department of Environmental Protection designate the entire length of Salt Lick Run as Exceptional Value and Migratory Fishes (EV, MF) under 25 PA Code Chapter 93 based on the Wilderness Trout Streams qualifier found in 93.4b(2)(b)(vi).
5. Continue to include Salt Lick Run from the headwaters downstream to the mouth on PFBC's list of stream sections that support natural reproduction of trout.

**This work made possible by funding from the Sport Fish Restoration Act Project F-57-R Fisheries Management.**

**PENNSYLVANIA FISH & BOAT COMMISSION  
BUREAU OF FISHERIES  
FISHERIES MANAGEMENT DIVISION**

Salt Lick Run (309C)  
Section 01  
Fisheries Management Report  
Unassessed Water

Prepared by  
David Kristine and Jason Detar

Fisheries Management Database Name: Salt Lick Run  
Lat/Lon: 41°06'24"/77°43'19"

Date Sampled: July 27, 2012

Date Prepared: January 18, 2013

### **Introduction**

Salt Lick Run is a small, second order, coldwater stream located in Centre County and flows into Beech Creek at River Mile (RM) 10.46, 41°06'24" latitude and 77°43'19" longitude near the town of Monument. The stream has a total length of 3.1 km (1.9 mi) and a drainage area of 3.1 km<sup>2</sup> (1.2 mi<sup>2</sup>). Salt Lick Run can be found on the Howard, PA United States Geological Survey 7.5 minute quadrangle (Figure 1). The entire watershed is publically owned by the Commonwealth of Pennsylvania as part of the Sproul State Forest and the current 25 PA Code Chapter 93 Water Quality Standards designation for Salt Lick Run is Cold Water Fishes and Migratory Fishes (CWF, MF). A review of PFBC files found records of fingerling brown trout stocking in 1956 and examinations conducted by Sorenson (1932), Antolosky (1960), and Heyl (1961) found wild brook trout present.

Salt Lick Run was surveyed during 2012 to gather contemporary information on the wild trout population for management and protection purposes.

### **Methods**

The examination of Salt Lick Run was conducted on July 27, 2012. All procedures were carried out according to those outlined by Detar et al. (2011). One representative station was sampled.

Physical characteristics, water chemistry, and fish communities were examined. Rapid bioassessment protocols (RBP) were used to assess the habitat in this stream (Barbour et al. 1999). The fish communities were sampled using an Appalachian Aquatics variable voltage backpack electrofisher set at 300 volts Pulsed-DC (Battery Backpack). Wild trout were measured and recorded in 25 mm (1.0

inch) length groups. Statewide average weights calculated for each length group were used to generate the biomass estimate. Wild trout densities were determined by using the number of trout captured in a single electrofishing pass. Scientific and common fish names reference the Integrated Taxonomic Information System (<http://www.itis.gov>).

## Results

*Site River Mile: 0.03*

Sample site RM 0.03 was located approximately 45 m upstream of Orviston-Monument Road at 41°06'18" latitude and 77°43'21" longitude. The 317 m long station averaged 1.5 m in width and covered 10 percent of the section length (Table 1). This portion of the stream primarily flowed through a narrow and densely forested mountain valley, stream banks were stable, and the substrate consisted primarily of rubble and gravel. The RBP analysis yielded a final score of 172 (Table 2).

Water chemistry and associated values measured under low flow conditions were as follows: water temperature 16.1°C, specific conductance 38 umhos, pH 6.5 standard units, and total alkalinity 5 mg/l (Table 3).

Two fish species were captured at the site including, wild brook trout *Salvelinus fontinalis* and slimy sculpin *Cottus cognatus*. A total of 140 wild brook trout ranging from 25 mm to 299 mm in total length (TL) were captured during the survey with 11 (eight percent) being greater than or equal to the legal harvestable length (175 mm: 7 in). Total brook trout biomass was estimated to be 53.51 kg/ha. Brook trout abundance was estimated at 442 trout/km (711 trout/mi) with 35 trout/km (56 trout/mi) being of legal length or longer (Table 4).

## Discussion

Salt Lick Run supports an excellent allopatric wild brook trout population and should continue to be listed on the PFBC's list of stream sections that support natural reproduction of wild trout based on the presence of both young-of-the-year and multiple year classes, as outlined in 58 PA Code §57.11., Listing of Wild Trout Streams. In addition, the estimated wild trout biomass met the Pennsylvania Fish and Boat Commission's minimum biomass criteria of 30 kg/ha for listing as a Class A wild brook trout water, as outlined in 58 PA Code §57.8a., Class A Wild Trout Streams. Thus, based on the wild trout biomass and sampling 10 percent of the total stream length, we recommend Salt Lick Run be managed as one section from the headwaters to the mouth as a Class A wild trout stream section under Commonwealth Inland Waters regulations with no stocking.

The current 25 PA Code Chapter 93 Water Quality Standards designation of Cold Water Fishes and Migratory Fishes (CWF, MF)

for Salt Lick Run is an inadequate level of protection for this stream. Due to the significant wild trout resource which meets Class A criteria, Salt Lick Run should be upgraded to High Quality-Cold Water Fishes and Migratory Fishes (HQ-CWF, MF) by the PA Department of Environmental Protection (DEP) upon listing by the Commission as a Class A wild trout water. Because of its superior and stable coldwater habitat, remote nature, and excellent wild brook trout population, Salt Lick Run would provide an excellent opportunity for a wild trout fishing experience in a natural and unspoiled environment and should be considered a candidate for the Commission's Wilderness Trout Streams program. In addition, the stream meets program criteria of not being accessible to motorized vehicles at more than one point, is open to the general angling public, has sufficient natural reproduction to sustain a fishery, and is approximately two miles in length. If Salt Lick Run is added to the Commission's Wilderness Trout Streams Program, the PFBC will request the Department of Environmental Protection to designate the entire length of Salt Lick Run as Exceptional Value and Migratory Fishes (EV, MF) under 25 PA Code Chapter 93 based on the Wilderness Trout Streams qualifier found in 93.4b(2)(b)(vi).

#### **Management Recommendations**

1. Add Salt Lick Run, Section 01 (from the headwaters to the mouth), to the Commission's Class A Wild Trout Streams program.
2. Manage Salt Lick Run, Section 01, as a Class A Wild Trout Stream under Commonwealth Inland Waters regulations with no stocking.
3. Add Salt Lick Run, Section 01, to the Commission's Wilderness Trout Streams Program.
4. Request the Department of Environmental Protection designate the entire length of Salt Lick Run as High-Quality Cold Water Fishes (HQ-CWF) under 25 PA Code Chapter 93 based on the Class A qualifier found in 93.4b(2)(ii).
5. If Salt Lick Run is subsequently added to the Commission's Wilderness Trout Streams Program, request the Department of Environmental Protection designate the entire length of Salt Lick Run as Exceptional Value (EV) under 25 PA Code Chapter 93 based on the Wilderness Trout Streams qualifier found in 93.4b(2)(b)(vi).
6. Continue to include Salt Lick Run from the headwaters downstream to the mouth on PFBC's list of stream sections that support natural reproduction of trout.

### Literature Cited

- Antolosky, P. 1960. Investigation of streams which do not meet state stocking standards. Pennsylvania Fish and Boat Commission files, 450 Robinson Lane, Bellefonte, PA.
- Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling. 1999. Rapid bioassessment protocols for use in wadeable streams and Rivers. USEPA. Report 814-99-002 Washington, DC.
- Detar, J., R. Wnuk, R.T. Greene, and M. Kaufmann. 2011. Standard electrofishing protocols for sampling Pennsylvania wadeable streams. Pages 5-24 in D. Miko, editor. Sampling protocols for Pennsylvania's wadeable streams. Pennsylvania Fish and Boat Commission. Harrisburg, PA.
- Heyl, D.H. 1961. Salt Lick Run investigation. Pennsylvania Fish and Boat Commission files, 450 Robinson Lane, Bellefonte, PA.
- Sorenson, D. 1932. Stream survey report. Pennsylvania Fish and Boat Commission files, 450 Robinson Lane, Bellefonte, PA.

Table 1. Salt Lick Run (09C), Centre County. Site sampling location, length surveyed, average site width and site area.

Site Date	Rivermile	Downstream limit description	Length (m)	Ave. Width (m)	Site Area (ha)
7/27/2012	0.03	Site starts approx 45 m upstream of Orviston Monument Road	317	1.5	0.05

Table 2. High Gradient Rapid Bioassessment Protocol ratings for Salt Lick Run (09C), Centre County, conducted at RM 0.03 on July 27, 2012.

Habitat Parameter	Score	Habitat Parameter	Score
Epifaunal Substrate / Available Cover	19	Left Bank Stability	7
Embeddedness	16	Right Bank Stability	7
Velocity / Depth Regime	16	Left Bank Vegetative Protection	10
Sediment Deposition	16	Right Bank Vegetative Protection	10
Channel Flow Status	18	Left Bank Riparian Vegetative Width	10
Channel Alteration	14	Right Bank Riparian Vegetative Width	10
Frequency of Riffles or bends	19	<b>Total Score</b>	<b>172</b>

<u>Habitat Condition</u>	<u>Total Score</u>
Optimal	151-200
Suboptimal	101-150
Marginal	51-100
Poor	0-50

Table 3. Chemistries collected in Salt Lick Run (09C), Centre County. Sample site(s) are within Section 01 in 2012 sample year.

Parameter	Site 1
Site RM	0.03
Sample Date	07/27/2012
Time (24 hour)	1130
Water Temperature (C)	16.1
pH Field Colorimetric (SU)	6.5
Specific Conductance (UMHOS)	38
Total Alkalinity Field Mixed Indicator (MG/L)	5

Table 4. Wild brook trout catch and biomass estimates at sample site RM 0.03 on Salt Lick Run (309C), Centre County, on July 27, 2012.

Size Group	Catch	Mean Wt(g)	Wt Source	Kg/ Ha	Num/ Ha	Num/ Km
25	1	1.04	StateMeanWt	0.02	21	3
50	61	2.45	StateMeanWt	3.14	1282	192
75	17	5.98	StateMeanWt	2.14	357	54
100	11	13.68	StateMeanWt	3.16	231	35
125	28	24.41	StateMeanWt	14.36	588	88
150	11	41.09	StateMeanWt	9.5	231	35
175	5	64.0	StateMeanWt	6.72	105	16
200	5	92.48	StateMeanWt	9.71	105	16
275	1	226.42	StateMeanWt	4.76	21	3
Totals	140			53.51	2941	442



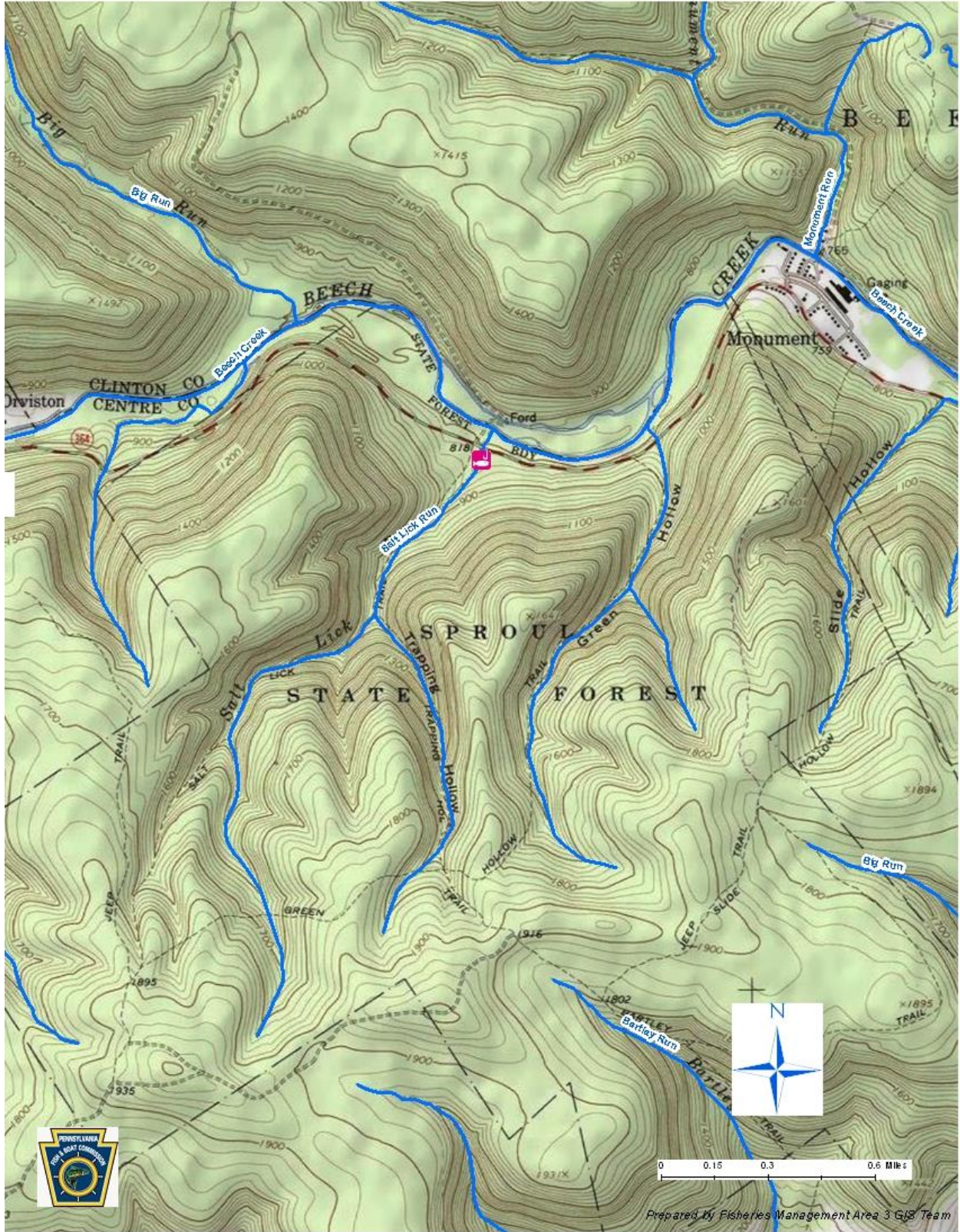


Figure 1. Location map for sample site river mile 0.03 on Salt Lick Run (309C), Centre County.