SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY

Beaver Creek (Law. Co.), Lawrence County

10120203000724

2015

Table 1. Population and Biomass Estimates for Beaver Creek (Law. Co.)

| Site Number: 234 Site Midpoint (Latitude, Longitude): 44.37866611, -104.00672610 Survey Completed by: South Dakota Game, Fish and Parks | | | | | | Date Sampled: 06/02/2015 Site Length (m): 100 | | 06/02/2015 | Conductivity | | 221 | | |
|---|---------------|-----------------------------|-------------------|-----------------|--|---|--------------------|------------------------|------------------|-----------------|------------------------|------------------------|---------------------------|
| | | | | | | | | (umhos/cm): pH: | | | 7.9 | | |
| | • | | Game, Fis | h and Parks | 6 | | Mean W | idth (m): | 4.5 | - | er Temper | ature (C): | 1.0 |
| Stream Classi | fication: Br | (2 | | | | | Number | of Pass: | 3 | | tage: | | 450 |
| Species | Size Class | Total Number Captured | Est. # in site | Upper 95% Cl | Lower 95% Cl | # per Hectacre | Kg per Hectacre | # per Km | # per Acre | lb. per Acre | # per Mile | Mean Length (mm) | Mean Weight (grams) |
| Brook Trout | <200mm | 122 | 185 | 253 | 122 | 4078 | 98 | 1850 | 1652 | 87.62 | 2977 | 117.4 | 24.1 |
| Brook Trout | >=200mm | 8 | 8 | 9 | 8 | 176 | 20 | 80 | 71 | 17.69 | 129 | 213.8 | 112.4 |
| Brook Trout | All | 130 | 186 | 242 | 130 | 4100 | 123 | 1860 | 1661 | 109.65 | 2993 | 123.3 | 30.0 |
| Longnose Dace | All | 31 | 101 | 401 | 31 | 2226 | 42 | 1010 | 902 | 37.77 | 1625 | 74.6 | 19.0 |
| Site Number: 2 Site Midpoint (| | .ongitude): | 44.351717 | 24, -104.02 | 273331 | | Date Sa | mpled: gth (m): | 09/16/2015 77 | | nductivity hos/cm): | | 377 |
| Survey Compl | • | | | | | | | , | | pH: | | | 8.5 |
| Stream Classification: BK1 | | | | | Mean Width (m): 0.9 Number of Pass: 3 | | | Water Temperature (C): | | | 17.5 | | |
| | | | | | | | number | or Pass: | 3 | Volt | tage: | | 450 |
| Species | Size Class | Total Number Captured | Est. # in site | Upper 95% Cl | Lower 95% Cl | # per Hectacre | Kg per Hectacre | # per Km | # per Acre | lb. per Acre | # per Mile | Mean Length (mm) | Mean Weight (grams) |
| Brook Trout | <200mm | 87 | 100 | 115 | 87 | 10680 | 370 | 1299 | 4325 | 330.57 | 2090 | 112.9 | 34.7 |
| Brook Trout | >=200mm | 7 | 7 | 7 | 7 | 748 | 75 | 91 | 303 | 67.23 | 146 | 217.0 | 100.7 |
| Brook Trout | All | 125 | 130 | 137 | 125 | 13883 | 592 | 1688 | 5623 | 528.55 | 2716 | 120.6 | 42.6 |

Stream sites are classified based on the estimates of adult trout over eight inches that exist within the site. Estimates are derived from 3-pass backpack electrofishing surveys at 100-meter sites within streams. While all fish in the site are collected and measured, only trout species are used for classifications. Sites are numbered in accordance for the distance (m) from the stream confluence of a higher order stream/river.

| Based on number of trout in excess of eight inches | | | | |
|--|---|--|--|--|
| Class BR1 | Number of wild Brown Trout exceeds 150 per acre | | | |
| Class BR2 | Number of wild Brook Trout ranges from 25 to 150 per acre | | | |
| Class BR3 | Number of wild Brown Trout is less than 25 per acre | | | |
| Class BK1 | Number of wild Brook Trout exceeds 150 per acre | | | |
| Class BK2 | Number of wild Brook Trout ranges from 25 to 150 per acre | | | |
| Class BK3 | Number of wild BrookTrout is less than 25 per acre | | | |
| Class RB1 | Number of wild Rainbow Trout exceeds 25 per acre | | | |
| Class RB2 | Number of wild Rainbow Trout is less than 25 per acre | | | |

Table 2. Species composition and population estimates on Beaver Creek (Law. Co.), 2005-2015

Site 234

| Species/Size | Date | Pop Est. | (95% C.I.) | Stream Classification | |
|---------------------|--------------|----------|------------|-----------------------|--|
| Brook Trout <200mm | Jul 10, 2008 | 94 | 94-94 | | |
| | Jun 02, 2015 | 185 | 122-253 | | |
| Brook Trout >=200mm | Jul 10, 2008 | 3 | 3-3 | BK2 | |
| | Jun 02, 2015 | 8 | 8-9 | BK2 | |
| Longnose Dace | Jun 02, 2015 | 101 | 31-401 | | |
| ite 289 | | | | | |
| Species/Size | Date | Pop Est. | (95% C.I.) | Stream Classification | |
| Brook Trout <200mm | Sep 16, 2015 | 100 | 87-115 | | |

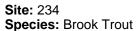
BK1

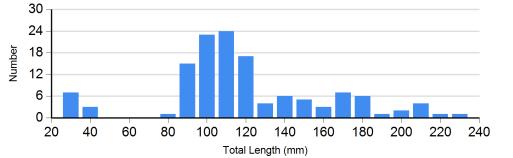
7-7

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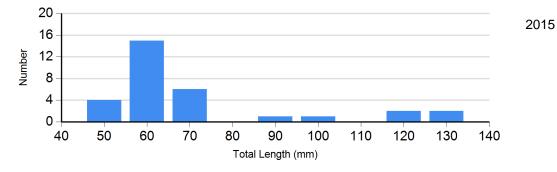
Length Frequency Distribution

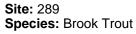
Length frequency histogram of species sampled by year.

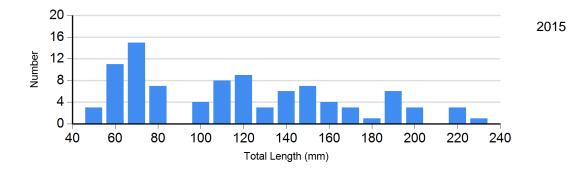




Site: 234 Species: Longnose Dace







2015