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**DRAFT**  
**Environmental Impact Statement**

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**Appendix 20**

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**Bird, Reptile and Amphibian Surveys**  
**with**  
**Addendum 2002**

**The Belleayre Resort at Catskill Park**

# **BIRDS OF THE BELLEAYRE RESORT SITE**

## **Introduction**

Field surveys took place in spring and early summer 2000 documenting the occurrence of birds at the proposed Belleayre Resort Site. The property is located in the towns of Middletown and Shandaken, Delaware and Ulster Counties, New York. Prior to fieldwork, a list was compiled of birds that were likely to occur on the site based on habitat requirements and geographical distribution (Table 1). Field survey results in the current report provide documentation of bird species actually recorded as compared to those expected at the site.

## **Methods**

### **Field Surveys:**

Bird surveys were conducted on 5, 10, 11, and 12 May and 7, 8, and 9 June 2000 in order to record both migrant and resident species. Also, during a site visit on 19 April 2000, several species were recorded. Using a random search method, surveys took place in designated plant communities, including beech-maple mesic forest, hemlock-northern hardwoods forest, hemlock-hardwood swamps, and successional old fields. Birds also were noted if they were observed on mowed lawns, flying overhead, or on the periphery of the study area. A concerted effort was made to traverse as large an area as possible in all habitats within the project area, especially those located within the proposed area of impact.

Surveys on most days (11, 12 May; 8, 9 June) began at 0600 h so the observer could record a maximum number of species by both auditory and visual surveys. In addition to early morning surveys, late afternoon surveys also yielded a significant number of species. Mid-day was usually reserved for other duties (e.g., reptile and amphibian surveys), as most bird species are usually quiet during mid-day. However, if encountered, birds also were recorded during mid-day.

### **Threatened and Endangered Species:**

A letter was sent to the US Fish and Wildlife Service (USFWS) office in Cortland, New York, requesting information on the occurrence of endangered or threatened species, or critical habitat in the vicinity of this project. In a reply letter dated 6 March 2000, Mark W. Clough of the USFWS stated that except for transient individuals, there are no known federally-listed or proposed endangered or threatened species under the jurisdiction of the USFWS in the project impact areas, including threatened or endangered birds.

A letter also was sent to the New York Natural Heritage Program requesting rare species information. In a response letter dated 4 May 2000, Betty A. Ketcham indicated that there are "no records of known occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of [the project site]."

However, a Sharp-shinned Hawk, a species listed by the New York Department of Environmental Conservation as a Species of Special Concern was observed during field surveys in the westernmost section of the study area (see “Results and Discussion, Least Common Species,” below).

It is possible that a Common Nighthawk nested in the power line right-of-way behind the old farm house located in successional old field habitat. The Common Nighthawk is listed as a Species of Special Concern by the New York State Department of Environmental Conservation, and is also listed on the 1986 American Birds’ Blue List, a list designed by the National Audubon Society to identify patterns of impending or ongoing serious losses in regional avian populations (Ehrlich et al., 1988).

A Common Nighthawk was suspected when the distinctive “boom” call was heard from a distance. However, when the sighting was further investigated, no sign of a Common Nighthawk was observed. Therefore, although presence is suspected, the species was not recorded.

## **Results and Discussion**

Field surveys documented a total of 71 species of birds at the proposed home and resort development site (Table 2, Table 3). Sixty-one species were recorded in May and 58 in June. Many of the individuals observed in May could have been migrants as they were seen during migration dates of each species in New York State. Most species recorded are known to reside in the Catskills. Of the 58 resident species observed in June, all were potential breeders in the area.

### **Most Common Species:**

The most common species observed were the American Robin (*Turdus migratorius*) and Red-eyed Vireo (*Vireo olivaceus*); both species were recorded on all survey dates (5, 10, 11, and 12 May; 7, 8, and 9 June). The American Robin also was recorded during a site visit on 19 April, a date too early to observe Red-eyed Vireos. Based on data recorded for Red-eyed Vireos in New York State, the species is rare before mid-May, with peak spring migration dates recorded on 17 and 20 May (Bull, 1985).

It also must be noted that American Robins and Red-eyed Vireos are extremely vocal, and this may account for their repeated documentation. For example, the Black-throated Green Warbler (*Dendroica virens*) was the most commonly heard warbler species, being heard continuously throughout a survey day. However, the Black-and-white Warbler (*Mniotilta varia*), a species that becomes quite elusive during the latter part of the nesting season (Andrle and Carroll, 1988) consequently was seldom heard during June surveys. However, the Breeding Bird Atlas (1988) shows that Black-and-white Warblers may be just as common as Black-throated Green Warblers, if not more so.

### **Least Common Species:**

Several species were observed only once, including a Sharp-shinned Hawk (*Accipiter striatus*), Purple Finch (*Carpodacus purpureus*), and Blackburnian Warbler (*Dendroica fusca*).

Although only one Blackburnian Warbler was seen (12 May), this species is common in the Catskills (Bull, 1985), and are known breeders there (Drennan, 1981). Purple Finches also are common breeders at high elevations (Bull, 1985). A male Purple Finch was observed on 9 June in hemlock-northern hardwoods forest on the edge of an intermittent rocky stream wetland.

On 7 June, a Sharp-shinned Hawk was seen flying in a westerly direction over Todd Mountain Road. The bird flew from beech-maple mesic forest habitat near the northernmost flagged wetlands on the east side of the road into the forested habitat on the west side of the road (off the project site proper). It is not known whether or not the Sharp-shinned Hawk nested on the property, but because the hawk was observed during the breeding season in potentially suitable nesting habitat within its geographical breeding range, it is possible that the bird was a breeder.

Although Sharp-shinned Hawks use mixed conifer-deciduous forests for nesting, most nests recorded in New York State have been located in conifers, with 80% of the nests found in hemlocks (Bull, 1974). Small scattered stands of hemlocks are located along Todd Mountain Road, and larger stands of hemlocks are found just northwest of the accipiter observation site, well within a typical home range size recorded for the species. Large stands of hemlock-northern forest habitat also are found within 1.3 miles of the hawk observation.

Since no nest or fledglings were found, it is impossible to confirm whether or not the hawk observed was a breeder. Sharp-shinned Hawks have been recorded to have nesting and hunting territories as large as 796.5 ha (Palmer, 1988; Johnsgard, 1990), and as small as 64 ha. Additionally, the nests of this species are extremely difficult to find; some New York nests have been located as high as 50 feet in a dense hemlock tree.

### **Number of Birds Observed in a Particular Habitat:**

#### **Successional Old Fields:**

Only 17% of the total number of birds observed on all survey dates ( $n = 10$  species) were found in successional old field habitat. On 11 May a small flock of Chipping Sparrows (*Spizella passerina*) was observed feeding on highbush blueberry (*Vaccinium corymbosum*) near an abandoned farmhouse. It is possible that the flock were migrants; spring maxima counts of Chipping Sparrows in New York have been recorded only five days earlier (Bull, 1985). The same numbers were not observed on later survey dates; in fact, only one Chipping Sparrow was observed on 7 June during surveys of the same old-field habitat. Nine additional species were observed in successional old-fields (Tables 2 and 3).

Several of the species observed in successional old field habitat most likely nest in the abandoned buildings, planted shrubs, stone walls, or other human-related sites found in the area, rather than in the old field vegetation. These species include House Wren (*Troglodytes aedon*), Eastern Phoebe (*Sayornis phoebe*), and House Finch (*Carpodacus mexicanus*).

### **Hardwood Swamps:**

Twenty-three percent of the total birds observed on all survey dates (n = 16 species) were found in hemlock-hardwood swamps. Veery (*Catharus fuscescens*) and Wood Thrush (*Hylocichla mustelina*) were heard in the hemlock-dominated wetlands, as were several species of woodpeckers (Yellow-bellied Sapsucker, *Sphyrapicus varius*; Downy Woodpecker, *Picoides pubescens*; Northern Flicker, *Colaptes auratus*; Pileated Woodpecker, *Dryocopus pileatus*). Among the remaining species observed in hemlock-hardwood swamp was a Barred Owl (*Strix varia*), a year-round resident of wooded swamps, and six species of warblers (Table 2). All of these species may nest in forested swamp habitat.

### **Flying Overhead:**

Four species were observed flying over the study site in May, including Great Blue Heron (*Ardea herodias*), Turkey Vulture (*Cathartes aura*), Chimney Swift (*Chaetura pelagica*), and Tree Swallow (*Tachycineta bicolor*). No breeding habitat was located that appeared suitable for Great Blue Herons within the immediate project area. There also was no suitable nesting habitat (open areas located near water) for tree swallows. However, numerous possible nest sites suitable for Turkey Vultures were observed, including rocky outcrops, hollow trees, and abandoned buildings. Although Chimney Swifts usually nest in chimneys or in the inner walls of old buildings (Andrle and Carroll, 1988), they may also nest in hollow trees, many of which were found on the property.

Three additional species flew over the site in June (Barn Swallow, *Hirundo rustica*; American crow, *Corvus brachyrhynchos*; Common Raven, *Corvus corax*). Nesting habitat for American crows was found within the project site proper and included forested areas with coniferous trees, a preferred type of nest tree. Although no open cliff habitat was found on the property, the Common Raven has also been found to nest in trees (Andrle and Carroll 1988). There is little probability that Barn swallows nest on the project proper due to the limited amount of open habitat found there, and no Barn Swallows were observed in the vicinity of a single possible nesting area surrounding an abandoned farmhouse in open habitat.

One species was observed foraging over open water (Belted Kingfisher, *Ceryle alcyon*). However, the open water habitat was located on the periphery on the project area. Red-winged Blackbirds (*Agelaius phoeniceus*) observed in scrub-shrub wetland habitat also were not located within the project area.

### **Beech-Maple Mesic Forest:**

Sixty-two percent of the total birds observed on all survey dates (n = 44) were found in beech-maple mesic forest. Beech-maple mesic forest was clearly the dominant habitat type, comprising 82% of the total site. Among the birds observed in beech-maple forest were three raptors (Sharp-shinned Hawk, *Accipiter striatus*; Red-tailed Hawk, *Buteo jamaicensis*; Broad-winged Hawk, *Buteo platypterus*), two game species (Ruffed Grouse, *Bonasa umbellus*; Wild Turkey, *Meleagris gallopavo*), and thirteen warblers (Tables 1 and 2).

For many of the warblers, (e.g., Black-and-white Warbler, *Mniotilta varia*; Black-throated Blue Warbler, *Dendroica caerulescens*; American Redstart, *Setophaga ruticilla*; Ovenbird, *Seiurus aurocapillus*) beech-maple mesic forest is their preferred habitat (Andrle and Carroll, 1988). Black-throated Green Warblers (*D. virens*) also were consistently found in beech-maple habitat during the survey. However, several species observed during this survey in beech-maple mesic forest in May (e.g., Common Yellowthroat, *Geothlypis trichas*; Chestnut-sided Warbler, *D. pensylvanica*; Nashville Warbler, *Vermivora ruficapilla*) typically nest in habitats other than deciduous forest.

Near Woodchuck Hollow at the headwaters of an intermittent rocky stream, a spring located in beech-maple mesic forest was a center of bird activity on 9 June 2000. Numerous species including a male Purple Finch (*Carpodacus purpureas*) were seen flying in the direction of the spring. A Red-eyed Vireo was observed bathing in a man-made stone foundation that was probably an old spring house.

### **Hemlock-Northern Hardwoods Forest**

Thirty-five percent of the total birds observed on all survey dates ( $n = 25$ ) were found in hemlock-northern hardwoods forest habitat in May and June. Of special interest was a Broad-winged Hawk (*Buteo platypterus*) that flew from beech-maple forest habitat to a shrub on a mowed lawn. The bird was observed feeding on chicks in a nest of an unidentified species of passerine located in the shrub. Several warblers, including Black-and-white Warbler, Ovenbird, American Redstart, Yellow-rumped Warbler, Black-throated Blue Warbler, Black-throated Green Warbler, Chestnut-sided Warbler, and Yellow Warbler, were observed in hemlock-northern hardwoods. The latter two species (Chestnut-sided and Yellow warblers) were found along the edges of the forested habitat, as well.

**Table 1. Potential bird species of the Belleayre Resort Site (Andrle and Carroll, 1988).**

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Common Name	Scientific Name
Great Blue Heron	<i>Ardea herodias</i>
Green-backed Heron	<i>Butorides striatus</i>
Mallard Duck	<i>Anas platyrhynchos</i>
Turkey Vulture	<i>Cathartes aura</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Broad-winged Hawk	<i>Buteo platypterus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
American Kestrel	<i>Falco sparverius</i>
Ruffed Grouse	<i>Bonasa umbellus</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Killdeer	<i>Charadrius vociferus</i>
Mourning Dove	<i>Zenaida macroura</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Great Horned Owl	<i>Bubo virginiana</i>
Barred Owl	<i>Strix varia</i>
Chimney Swift	<i>Chaetura pelagica</i>
Ruby-throated Hummingbird	<i>Archilochus colubris</i>
Belted Kingfisher	<i>Ceryle alcyon</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Northern Flicker	<i>Colaptes auratus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>
Eastern Wood-Pee-wee	<i>Contopus virens</i>
Alder Flycatcher	<i>Empidonax alnorum</i>
Least Flycatcher	<i>Empidonax minimus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Great-crested Flycatcher	<i>Myiarchus crinitus</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Cliff Swallow	<i>Hirundo pyrrhonota</i>
Barn Swallow	<i>Hirundo rustica</i>
Blue Jay	<i>Cyanocitta cristata</i>
American Crow	<i>Corvus brachyrhynchos</i>
Black-capped Chickadee	<i>Parus atricapillus</i>
Tufted Titmouse	<i>Parus bicolor</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>

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Brown Creeper	<i>Certhia americana</i>
Winter Wren	<i>Troglodytes troglodytes</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Eastern Bluebird	<i>Sialia sialis</i>
Veery	<i>Catharus fuscescens</i>
Hermit Thrush	<i>Catharus guttatus</i>
Wood Thrush	<i>Hylocichla mustelina</i>
American Robin	<i>Turdus migratorius</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Brown Thrasher	<i>Toxostoma rufum</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
European Starling	<i>Sturnus vulgaris</i>
Blue-headed Vireo	<i>Vireo solitarius</i>
Yellow-throated Vireo	<i>Vireo flavifrons</i>
Warbling Vireo	<i>Vireo gilvus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Blue-winged Warbler	<i>Vermivora pinus</i>
Nashville Warbler	<i>Vermivora ruficapilla</i>
Yellow Warbler	<i>Dendroica petechia</i>
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>
Magnolia Warbler	<i>Dendroica magnolia</i>
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>
Black-throated Green Warbler	<i>Dendroica virens</i>
Black-and-white Warbler	<i>Mniotilta varia</i>
American Redstart	<i>Setophaga ruticilla</i>
Ovenbird	<i>Seiurus aurocapillus</i>
Louisiana Waterthrush	<i>Seiurus motacilla</i>
Mourning Warbler	<i>Oporornis philadelphia</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Canada Warbler	<i>Wilsonia canadensis</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Indigo Bunting	<i>Passerina cyanea</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Chipping Sparrow	<i>Spizella passerina</i>
Field Sparrow	<i>Spizella pusilla</i>
Song Sparrow	<i>Melospiza melodia</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
Dark-Eyed Junco	<i>Junco hyemalis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Common Grackle	<i>Quiscalus quiscula</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Baltimore Oriole	<i>Icterus galbula</i>



Purple Finch  
House Finch  
American Goldfinch  
House Sparrow

*Carpodacus purpureus*  
*Carpodacus mexicanus*  
*Carduelis tristis*  
*Passer domesticus*

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**Table 2.** Bird species observed at the Belleayre Resort Site during field visits on 19 April, and 5, 10, 11, and 12 May 2000. All habitat types were located within the study area except OW (open water) and SS (scrub-shrub wetland), both of which were located on the periphery of the study area.

Species		
Common Name	Scientific Name	<sup>1</sup> Habitat Type
Great Blue Heron	<i>Ardea herodias</i>	FO
Turkey Vulture	<i>Cathartes aura</i>	FO
Broad-winged Hawk	<i>Buteo platypterus</i>	HH
Ruffed Grouse	<i>Bonasa umbellus</i>	BM
Wild Turkey	<i>Meleagris gallopavo</i>	BM
Mourning Dove	<i>Zenaida macroura</i>	OF
Barred Owl	<i>Strix varia</i>	HS
Chimney Swift	<i>Chaetura pelagica</i>	FO
Belted Kingfisher	<i>Ceryle alcyon</i>	BM, OW
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	BM,HS
Downy Woodpecker	<i>Picoides pubescens</i>	BM,HH,HS
Hairy Woodpecker	<i>Picoides villosus</i>	BM,HH
Northern Flicker	<i>Colaptes auratu</i>	BM,HS
Pileated Woodpecker	<i>Dryocopus pileatus</i>	BM,HH,HS
Least Flycatcher	<i>Empidonax minimus</i>	BM,HH
Great-crested Flycatcher	<i>Myiarchus crinitus</i>	SS,HH
Tree Swallow	<i>Tachycineta bicolor</i>	FO
Blue Jay	<i>Cyanocitta cristata</i>	BM,OF
American Crow	<i>Corvus brachyrhynchos</i>	OF,ML
Black-capped Chickadee	<i>Parus atricapillus</i>	BM,HH,HS
Tufted Titmouse	<i>Parus bicolor</i>	BM
White-breasted Nuthatch	<i>Sitta carolinensi</i>	BM
Brown Creeper	<i>Certhia americana</i>	HH
Winter Wren	<i>Troglodytes troglodytes</i>	HH,HS
House Wren	<i>Troglodytes aedon</i>	OF
Golden-crowned Kinglet	<i>Regulus satrapa</i>	HH,BM
Veery	<i>Catharus fuscescens</i>	BM,HS
Hermit Thrush	<i>Catharus guttatus</i>	BM
Wood Thrush	<i>Hylocichla mustelina</i>	BM,HS
American Robin	<i>Turdus migratorius</i>	BM,HH,OF
Gray Catbird	<i>Dumetella carolinensis</i>	OF
Blue-headed Vireo	<i>Vireo solitarius</i>	BM
Red-eyed Vireo	<i>Vireo olivaceus</i>	BM,HH,HS
Yellow Warbler	<i>Dendroica petechia</i>	SS,HH,HS,BM

**Table 2. continued**

Species		
Common Name	Scientific Name	<sup>1</sup> Habitat Type
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	HH,BM
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	HH,BM
Yellow-rumped Warbler	<i>Dendroica coronata</i>	BM,HH,HS
Black-throated Green Warbler	<i>Dendroica virens</i>	BM,HH,HS
Blackburnian Warbler	<i>Dendroica fusca</i>	BM
Pine Warbler	<i>Dendroica pinus</i>	HH
Prairie Warbler	<i>Dendroica discolor</i>	OF
Northern Parula warbler	<i>Parula americana</i>	BM
Nashville Warbler	<i>Vermivora ruficapilla</i>	BM
Black-and-white Warbler	<i>Mniotilta varia</i>	HS,HH,BM
American Redstart	<i>Setophaga ruticilla</i>	HS,HH,BM
Ovenbird	<i>Seiurus aurocapillus</i>	HH,HS,BM
Common Yellowthroat	<i>Geothlypis trichas</i>	SS,BM
Scarlet Tanager	<i>Piranga olivacea</i>	BM,HH
Northern Cardinal	<i>Cardinalis cardinalis</i>	OF,BM
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	BM,HH,HS
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	BM
Chipping Sparrow	<i>Spizella passerina</i>	OF
Song Sparrow	<i>Melospiza melodia</i>	BM,OF
Dark-eyed Junco	<i>Junco hyemalis</i>	HH,BM
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	SS
Common Grackle	<i>Quiscalus quiscula</i>	ML
Brown-headed Cowbird	<i>Molothrus ater</i>	OF
Baltimore Oriole	<i>Icterus galbula</i>	BM
House Finch	<i>Carpodacus mexicanus</i>	OF
American Goldfinch	<i>Carduelis tristis</i>	FO, BM
House Sparrow	<i>Passer domesticus</i>	ML

<sup>1</sup>Habitat types in which birds were observed at the Belleayre study site:

- BM – Beech-Maple Mesic Forest
- HH – Hemlock-Northern Hardwoods Forest
- ML – Mowed lawn
- OF – Successional Old Field
- HS – Hardwood Swamp
- FO – Observed Flying Overhead

**Table 3.** Bird species observed at the Belleayre Resort Site during field visits on 7, 8, and 9 June 2000. All habitat types were located within the study area except OW (open water) and SS (scrub-shrub wetland), both of which were located on the periphery of the study area.

Species		
Common Name	Scientific Name	<sup>1</sup> Habitat Type
Turkey Vulture	<i>Cathartes aura</i>	FO
Sharp-shinned Hawk	<i>Accipiter striatus</i>	BM
Broad-winged Hawk	<i>Buteo platypterus</i>	ML, HH
Red-tailed Hawk	<i>Buteo jamaicensis</i>	BM
Mourning Dove	<i>Zenaida macroura</i>	OF
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	BM
Belted Kingfisher	<i>Ceryle alcyon</i>	OW
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	BM
Downy Woodpecker	<i>Picoides pubescens</i>	BM
Hairy Woodpecker	<i>Picoides villosus</i>	HH
Northern Flicker	<i>Colaptes auratu</i>	BM
Pileated Woodpecker	<i>Dryocopus pileatus</i>	BM
Eastern Wood-Pee-wee	<i>Contopus virens</i>	BM
Least Flycatcher	<i>Empidonax minimus</i>	BM
Eastern Phoebe	<i>Sayornis phoebe</i>	OF,ML
Barn Swallow	<i>Hirundo rustica</i>	FO
Blue Jay	<i>Cyanocitta cristata</i>	BM
American Crow	<i>Corvus brachyrhynchos</i>	FO
Common Raven	<i>Corvus corax</i>	FO
Black-capped Chickadee	<i>Parus atricapillus</i>	BM,HH
Tufted Titmouse	<i>Parus bicolor</i>	BM,OF
Red-breasted Nuthatch	<i>Sitta canadensis</i>	BM
White-breasted Nuthatch	<i>Sitta carolinensis</i>	BM
Brown Creeper	<i>Certhia americana</i>	HH
Winter Wren	<i>Troglodytes troglodytes</i>	HH
House Wren	<i>Troglodytes aedon</i>	OF
Golden-crowned Kinglet	<i>Regulus satrapa</i>	BM
Veery	<i>Catharus fuscescens</i>	BM,HH
Hermit Thrush	<i>Catharus guttatus</i>	BM
Wood Thrush	<i>Hylocichla mustelina</i>	BM
American Robin	<i>Turdus migratorius</i>	OF,BM
European Starling	<i>Sturnus vulgaris</i>	ML
Blue-Headed Vireo	<i>Vireo solitarius</i>	HH
Red-eyed Vireo	<i>Vireo olivaceus</i>	BM, RS
Blue-winged Warbler	<i>Vermivora pinus</i>	BM

**Table 3. continued**

Species		
Common Name	Scientific Name	<sup>1</sup> Habitat Type
Yellow Warbler	<i>Dendroica petechia</i>	SS,BM
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	HH
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	BM
Black-throated Green Warbler	<i>Dendroica virens</i>	BM
Common Yellowthroat	<i>Geothlypis trichas</i>	HH
Northern Parula warbler	<i>Parula americana</i>	BM
Black-and-White Warbler	<i>Mniotilta varia</i>	BM
American Redstart	<i>Setophaga ruticilla</i>	BM
Ovenbird	<i>Seiurus aurocapillus</i>	BM
Scarlet Tanager	<i>Piranga olivacea</i>	BM
Northern Cardinal	<i>Cardinalis cardinalis</i>	OF
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	HH,BM
Chipping Sparrow	<i>Spizella passerina</i>	OF
Song Sparrow	<i>Melospiza melodia</i>	OF
Dark-eyed Junco	<i>Junco hyemalis</i>	BM
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	SS
Common Grackle	<i>Quiscalus quiscula</i>	ML
Brown-headed Cowbird	<i>Molothrus ater</i>	ML
Baltimore Oriole	<i>Icterus galbula</i>	BM
Purple Finch	<i>Carpodacus purpureus</i>	HH
House Finch	<i>Carpodacus mexicanus</i>	OF
American Goldfinch	<i>Carduelis tristis</i>	BM
House Sparrow	<i>Passer domesticus</i>	ML

<sup>1</sup>Habitat types in which birds were observed at the Belleayre study site:

- BM – Beech-Maple Mesic Forest
- HH – Hemlock-Northern Hardwoods Forest
- ML – Mowed lawn (with shrubs/trees)
- OF – Successional Old Field
- HD – Hardwood Swamp
- RS – Intermittent Rocky Stream Wetland
- FO – Observed Flying Overhead
- OW – Open water

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# REPTILES AND AMPHIBIANS OF THE BELLEAYE RESORT SITE

## Introduction

Field surveys took place in spring and early summer 2000 documenting the occurrence of herpetofauna (amphibians and reptiles) at the proposed Belleayre Resort Site. The property is located in the towns of Middletown and Shandaken, Delaware and Ulster Counties, New York. Prior to fieldwork, two lists were compiled of reptiles and amphibians that are judged likely to occur in the vicinity of the project site. One list (Table 1) is based on species occurrences in the southeastern New York region as predicted by habitat requirements and geographical distribution. A second list (Table 2) is based on more specific regional records of species observed in four 7.5-minute topographic quadrangles that include the project site. These quadrangles include data gathered by the New York State DEC Herp Atlas Project, a statewide survey of amphibians and reptiles documenting their occurrence and distribution. Field survey results in the current report provide documentation of herpetofaunal species actually recorded as compared to those expected at the site.

## Methods

### Field Surveys:

Amphibian and reptile surveys were conducted on 5, 10, and 11 May; 7, 8, and 9 June; and 6 July 2000. Diurnal surveys took place in designated plant community locations (successional old field, hardwood swamps, hemlock-hardwood swamps, hemlock-northern hardwood forest, beech-maple mesic forest, intermittent rocky stream wetland). Within these communities, areas of survey concentration took place in the following locations: (1) in brooks flowing through upland forests, (2) along brook borders, (3) along old logging roads and hiking trails, (4) around old buildings, and (5) in targeted areas off logging trails where the observer went to nearby habitats such as rock outcrops that could be potential denning areas for certain species of snakes.

Due to cool, dry weather conditions during the observer's site visits only one nocturnal survey was conducted. The single night-time survey took place on 11 May 2000 when weather conditions appeared suitable for survey work (9.5 degrees Celsius; light rain). The night-time survey took place in order to encounter migrating or foraging amphibians or snakes that would likely be encountered on roadways, and to make chance observations of road-killed specimens. The survey was conducted by road-cruising at low speeds through the few sections of the project site that contained roads.

Diurnal surveys employed a "visual encounter survey" method (VES). Visual encounter surveys are active searches in which the observer walks through a particular habitat for a prescribed period systematically searching for animals (Heyer et al., 1994). The survey includes both visual searches and cover object searches (e.g., pulling apart logs and replacing them to their original position, searching leaf litter, and searching under bark and rocks). Searches were conducted by walking through the site and concentrating on various habitat

types (e.g., streams) within a particular habitat (e.g., beech-maple mesic forest), while searching for particular species.

Eggs and larvae of many amphibian species can be detected in suitable aquatic habitats. Surveys for eggs of terrestrial species (e.g., lungless salamanders) took place under leaf litter, rocks or boards, or inside decaying logs. Surveys for egg masses of species such as wood frogs (*Rana sylvatica*) and spotted salamanders (*Ambystoma maculatum*) are a typical component of spring-breeding amphibian surveys. However, no suitable habitat was found for such species within the project area.

Intensive diurnal surveys took place in brooks and areas adjacent to them where rocks were turned over in search of the adults and aquatic larvae of salamanders such as spring salamanders (*Gyrinophilus porphyriticus*), dusky salamanders (*Desmognathus fuscus*, *D. ochrophaeus*), and two-lined salamanders (*Eurycea bislineata*). Deadfall (especially decaying logs) and rocks on the forest floor were overturned for terrestrial species such as red-backed salamanders and slimy salamanders (*Plethodon cinereus*, *P. glutinosus*). Wet mosses on large boulders were pulled back in search for dusky salamanders (*Desmognathus* spp.) and lungless salamanders (*Plethodon* spp.). All of the above searches took place in upland forest, with the exception of a few areas where brooks flowed through forested wetland.

Rocky outcrops and slab rocks for denning were searched for snakes. Crevices were scanned with a mirror and flashlight for potential snakes inhabiting the rocky habitat. Leaf litter impressions, compactions and potential basking sites were noted around the outcrops. Leaf litter was lifted and searched with a hook tool. Sunlight patches were observed for basking snakes; rocks were overturned and the loose bark of some dead trees was peeled off. All rocks and bark were returned to their original position whenever possible.

Other than the stream habitat referred to above, there was little aquatic or wetland habitat where surveys for aquatic and semi-aquatic species could be conducted. No vernal pool habitat or other areas of standing water were encountered where species such as spotted salamanders (*Ambystoma maculatum*) or wood frogs (*Rana sylvatica*) could breed. There were few areas of either standing or flowing water deep enough for aquatic or semi aquatic turtles of any species within the areas of potential impact. An exception may include an area where Birch Brook flows through the western property at Lasher Road and Route 28. Other than possibly the Lasher Rd./Rt. 28 area, there was no slow-moving aquatic habitat deep enough for species such as northern water snakes (*Nerodia sipedon*) in the project area.

Data were recorded for each observation and included the following:

1. Species identification
2. Location
3. Date and time of day
4. Temperature and weather conditions
5. Behavior
6. Type of evidence for each species (e.g., dead-on-road, adult, larva)



### **Threatened and Endangered Species:**

A letter was sent to the US Fish and Wildlife Service (USFWS) office in Cortland, New York, requesting information on the occurrence of endangered or threatened species, or critical habitat in the vicinity of this project. In a reply letter dated 6 March 2000, Mark W. Clough of the USFWS stated that there are no known federally-listed or proposed endangered or threatened species under the jurisdiction of the USFWS in the project impact areas, including no known threatened or endangered reptiles or amphibians.

A letter also was sent to the New York Natural Heritage Program requesting rare species information. In a response letter dated 4 May 2000, Betty A. Ketcham indicated that there are “no records of known occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of [the project site].”

No endangered or threatened reptile or amphibian species or herpetofaunal species of special concern were found during field surveys on the project site.

### **Results and Discussion**

Fourteen species of amphibians and reptiles were observed at the proposed home and resort development site (Table 3). Of the 19 species reported for the four quadrangles of the project area during the NYS Herp Atlas Project (Table 2), 15 species were judged to be possible inhabitants of the project site. It should be noted that when observers contribute records to the NYS Herp Atlas Survey, it is standard procedure to search suitable habitats such as wetlands. No wetlands were found on the project site other than limited stream-side wetland habitat (intermittent rocky stream wetland, rocky headwater stream, shallow emergent marsh) and small areas of forested wetland (hardwood swamp, hemlock-hardwood swamp). As a result of limited wetland habitats, many common reptile and amphibian species typically observed when performing herpetological surveys were not recorded in the present survey (e.g., wood frog, *Rana sylvatica*; spotted salamander, *Ambystoma maculatum*; painted turtle, *Chrysemys picta*; Northern water snake, *Nerodia sipedon*).

Several species recorded by the Herp Atlas Project were not observed, although the habitat for them appeared to be suitable at the project site: Eastern box turtle (*Terrapene carolina*), Northern ringneck snake (*Diadophis punctatus*), and smooth green snake (*Opheodrys vernalis*).

### **Snakes:**

Due to cool, dry weather conditions on most survey dates, several species of snakes predicted to occur were not observed during the survey period. An ideal temperature and relative humidity for most New York snake species is approximately 18 degrees Celsius with 60-80% relative humidity (W.S. Brown, Professor/snake researcher, pers. comm.). In the present survey, the humidity was low on all survey days. The air temperature on 5 May was 25 degrees Celsius. Temperatures on later survey dates (10, 11, 12 May; 8,9 June) fell between

9.5 and 16.0 degrees Celsius. On 7 June the air temperature was 21 degrees Celsius; however, it was windy and the humidity was low. On 6 July the air temperature ranged between 17.0 (at 0900h) and 24.0 degrees (at 1315 h) Celsius. Four snake species were observed during the 6 July survey day.

Although much of the habitat appeared to be suitable for snakes, most rocky outcrops and large slab rocks in the project area were located on north-facing slopes in closed-canopy forest. Most snakes in mountainous areas of New York require denning sites on south-facing slopes with an open canopy so that they can thermoregulate in sunny spots on the den after early spring emergence. Several rocky south-facing slopes were surveyed, but none of the habitats found were located in open-canopy forest. Several deciduous woodland snake species known to den together were anticipated, particularly the black rat snake (*Elaphe obsoleta*) and milk snake (*Lampropeltis triangulum*). Copperheads (*Agkistrodon contortrix*) and timber rattlesnakes (*Crotalus horridus*) also den with the above species, although the latter species is rare, and neither species has been found in the project area (NYS Herp Atlas data). On 6 July, an adult black rat snake was observed climbing down a small tree (witch hazel, *Hamamelis virginiana*) at the top of a steep rockslide on the south-facing slopes of the western section of the property. This terrestrial and arboreal species is often observed in trees where it may feed on nestling birds (pers. obs. by LA Group Biologist).

Of the previously-mentioned species, only the black rat snake (*Elaphe obsoleta*) was recorded during the Belleayre surveys. Also found on the south-facing slopes was a Northern brown snake (*Storeria dekayi*), a secretive, nocturnal species. The snake was observed under a flat rock in beech-maple forest, near a brook at the bottom of the slope. A common garter snake (*Thamnophis sirtalis*) also was observed on the south-facing beech-maple slopes of the western property. Likewise, garter snakes were recorded on the eastern property in the same deciduous-forest habitat on 6 July.

Throughout much of the property, suitable habitat for red-bellied snakes (*Storeria occipitomaculata*) was present. Although they prefer wetland-upland ecotones, red-bellied snakes are found in a variety of terrestrial habitats. This extremely secretive, nocturnal species may be found under rocks, logs, bark, and leaves, although if conditions are dry, they are apt to go underground in unused rodent burrows (Mitchell, 1994). A red-bellied snake was observed on top of the moist leaf litter in beech-maple forest on the south-facing slopes of the property, on 6 July.

### **Turtles:**

The only turtle species recorded during the survey was a common snapping turtle (*Chelydra serpentina*) that was observed outside the survey boundaries. The turtle also was observed outside the herp survey period, on 28 June 2000, when LA Group biologists were leaving the Fir Mountain area. The snapping turtle was seen on Route 47, on the edge of the road. The turtle may use a pond on a resident's property on Lasher Road, or it may have come from Birch Creek. But snapping turtles have large home ranges, and therefore it is impossible to predict the exact location of the turtle's "home pond."

### **Salamanders:**

The most common amphibian species observed was the Allegheny Mountain dusky salamander (*Desmognathus ochrophaeus*). Mountain duskies were observed on 5 May and on 8 and 9 June in eight different locations, and several dozen individuals were found in two of the eight locations (Table 3). The salamanders were found under rocks in shallow water or along brook borders in intermittent rocky stream wetlands or in streams that flowed through shallow emergent marshes. A congener, the northern dusky salamander (*D. fuscus*), was recorded in two of the seven locations.

On 6 July, on the south-facing slopes of the western property, two slimy salamanders (*Plethodon glutinosus*) were observed. The salamanders were found under two different flat rocks, both heavily covered underneath with ants and ant eggs. The rocks were located in an open area dominated by successional vegetation in beech-maple forest, at an elevation of approximately 1600 feet. When handled, the salamanders left a residue of adhesive skin secretions which function to deter predators (Petranka, 1998).

Additional salamander species observed at the study site included the two-lined salamander (*Eurycea bislineata*), red-backed salamander (*Plethodon cinereus*), and Eastern red-spotted newt (*Notophthalmus viridescens*). These species were found on 5 May, 10 May, and 8 June. *P. cinereus* was observed in large numbers (>12 individuals) in two locations. One site was a moss-covered, rocky bank where the salamanders were found underneath flat rocks and trickling waterfalls. The other site contained similar habitat on the forest floor.

### **Anurans:**

Three anurans were observed in the study area: the green frog (*Rana clamitans*), spring peeper (*Pseudacris crucifer*), and American toad (*Bufo americanus*). Spring peepers were believed to inhabit a wetland on NYS DEC ski resort property, based on vocalizations heard on 11 May. An American toad was observed crossing a road outside the project site proper at 0300 h on a rainy night (11 May). Although the green frog is considered to be the most common frog in New York State based on data collected by the NYS Herp Atlas Project (data through 1998), in the present survey only two survey locations contained green frogs.

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- Mitchell, J.C. 1994. The Reptiles of Virginia. Smithsonian Institution Press. Washington and London.
- New York State Amphibian and Reptile Atlas Project. 1999. New York State Amphibian and Reptile Atlas, 1990 – 1998 Interim Report. Wildlife Resources Center, Delmar, New York.
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**Table 1.** Potential reptile and amphibian species of the Belleayre Resort Site based on distribution maps in Conant and Collins (1998).

Group	Common Name	Scientific Name <sup>1</sup>
Turtles	Common Snapping Turtle	<i>Chelydra serpentina</i>
	Wood Turtle	<i>Clemmys insculpta</i>
	Painted Turtle	<i>Chrysemys picta</i>
Snakes	Northern Water Snake	<i>Nerodia sipedon</i>
	Brown Snake	<i>Storeria dekayi</i>
	Redbelly Snake	<i>Storeria occipitomaculata</i>
	Common Garter Snake	<i>Thamnophis sirtalis</i>
	Eastern Ribbon Snake	<i>Thamnophis sauritis</i>
	Northern Ringneck Snake	<i>Diadophis punctatus</i>
	Northern Black Racer	<i>Coluber constrictor</i>
	Smooth Green Snake	<i>Opheodrys vernalis</i>
	Black Rat Snake	<i>Elaphe obsoleta</i>
	Milk Snake	<i>Lampropeltis triangulum</i>
Timber rattlesnake	<i>Crotalus horridus</i>	
Northern Copperhead	<i>Agkistrodon contortrix</i>	
Salamanders	Spotted Salamander	<i>Ambystoma maculatum</i>
	Blue-spotted Salamander	<i>Ambystoma laterale</i>
	Eastern Red-spotted Newt	<i>Notophthalmus viridescens</i>
	Northern Dusky Salamander	<i>Desmognathus fuscus</i>
	Allegheny Mountain Dusky Salamander	<i>Desmognathus ochrophaeus</i>
	Red-backed Salamander	<i>Plethodon cinereus</i>
	Slimy Salamander	<i>Plethodon glutinosus</i>
	Spring Salamander	<i>Gyrinophilus porphyriticus</i>
	Two-lined Salamander	<i>Eurycea bislineata</i>
	Longtail Salamander	<i>Eurycea longicauda</i>
Anurans	American Toad	<i>Bufo americanus</i>
	Gray Treefrog	<i>Hyla versicolor</i>
	Spring Peeper	<i>Pseudacris crucifer</i>
	Bullfrog	<i>Rana catesbeiana</i>
	Green Frog	<i>Rana clamitans</i>
	Wood Frog	<i>Rana sylvatica</i>
	Northern Leopard Frog	<i>Rana pipiens</i>

Pickerel Frog

*Rana palustris*

**Table 2.** Amphibian and reptile species recorded over the first 8 years of the New York State Herp Atlas Project (a NYSDEC-managed statewide herpetofaunal survey) in four USGS 7.5 minute topographic quadrangles (Fleischmanns, Westkill, Seager, Shandaken), that include the project area.

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Group	Common Name	Scientific Name
Snakes	Common Garter Snake	<i>Thamnophis sirtalis</i>
	Northern Ringneck Snake	<i>Diadophus punctatus</i>
	Smooth Green Snake	<i>Opheodrys vernalis</i>
	Northern Red-bellied Snake	<i>Storeria occipitomaculata</i>
Turtles	Eastern Box Turtle	<i>Terrapene carolina</i>
	Wood Turtle	<i>Clemmys insculpta</i>
	Painted Turtle	<i>Crysemys picta</i>
	Common Snapping Turtle	<i>Chelydra serpentina</i>
Salamanders	Spotted Salamander	<i>Ambystoma maculatum</i>
	Eastern Red-spotted Newt	<i>Notophthalmus viridescens</i>
	Allegheny Mountain Dusky Salamander	<i>Desmognathus ochrophaeus</i>
	Northern Dusky Salamander	<i>Desmognathus fuscus</i>
	Northern Two-lined Salamander	<i>Eurycea bislineata</i>
	Red-backed Salamander	<i>Plethodon cinereus</i>
Anurans	Pickerel Frog	<i>Rana palustris</i>
	Wood Frog	<i>Rana sylvatica</i>
	Bull Frog	<i>Rana catesbeiana</i>
	Green Frog	<i>Rana clamitans</i>
	Spring Peeper	<i>Pseudacris crucifer</i>
	American Toad	<i>Bufo americanus</i>

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**Table 3.** Reptile and amphibian species observed in spring-early summer 2000 at the proposed Belleayre Resort Site in the towns of Middletown and Shandaken, Delaware and Ulster Counties, New York.

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Species	Habitat	Date Observed
Salamanders:		
<i>Notophthalmus viridescens</i>	Beech-Maple Mesic Forest	
	Intermittent Rocky Stream Wetland	8 June
<i>Desmognathus ochrophaeus</i>	Intermittent Rocky Stream Wetland	5 May, 8, 9 June
<i>Desmognathus fuscus</i>	Intermittent Rocky Stream Wetland	5 May, 8, 9 June
<i>Eurycea bislineata</i>	Intermittent Rocky Stream Wetland	5 May
<i>Plethodon cinereus</i>	Intermittent Rocky Stream Wetland	10 May, 8 June
<i>Plethodon glutinosus</i>	Beech-Maple Mesic Forest	6 July
Anurans:		
<i>Rana clamitans</i>	Intermittent Rocky Stream Wetland	5 May, 8 June
<i>Pseudacris crucifer</i>	Scrub-shrub Swamp	5, 11 May
<i>Bufo americanus</i>	Roadway through Hemlock-Northern Hardwood	
Snakes:		
	Forest	11 May
<i>Thamnophis sirtalis</i>	Beech-Maple Mesic Forest	5 May, 6 July
<i>Elaphe obsoleta</i>	Beech-Maple Mesic Forest	6 July
<i>Storeria occipitomaculata</i>	Beech-Maple Mesic Forest	6 July
<i>Storeria dekayi</i>	Beech-Maple Mesic Forest	6 July
Turtles:		
<i>Chelydra serpentina</i>	Roadway near Birch Creek	28 June

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*crossroads ventures llc*

**DRAFT**  
**Environmental Impact Statement**

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**Appendix 20**

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**Bird, Reptile and Amphibian Surveys**  
**Addendum December 2002**

**The Belleayre Resort at Catskill Park**



**New York State Department of Environmental Conservation  
Division of Fish, Wildlife & Marine Resources**

**Bureau of Fisheries, Region 3**

21 South Putt Corners Road, New Paltz, New York 12561-1696

Phone: (914) 256-3164 • FAX: (914) 255-4659

Website: www.dec.state.ny.us



3069 mlk

8 November 2000

NOV 13 2000

the LA group

Kevin J. Franke  
The LA Group, P.C.  
40 Long Alley  
Saratoga Springs, NY 12866

Dear Mr. Franke:

I have collected all the survey data that we have in our files for the streams you requested in Ulster County. Over the years the format that the Bureau of Fisheries has used to record this information has evolved, as has our method of storing and retrieving this data. Therefore, you will see that the attached information has been provided in a variety of different forms. If this is hard for you to follow, please give me a call and I will help clarify the information. The most recent data has been coded on standard forms that are then entered into a statewide database. The database is not fully functional at this point and there is a backlog of data yet to be entered. For the data that has not yet been entered into the database, I have included the raw data forms. To understand the codes that are used, please check the back of the forms. I have included photocopies of the USGS quadrangle maps that show the stream numbering system our Department uses and the sites sampled this last September.

The enclosed stream surveys, and the year(s) they were conducted, are listed below:

- Lost Clove Brook (H-171-53): 1936, 1957 and 2000
- Birch Creek (H-171-52): 1936, 1956, 1980, 1988, 1989, 1993 and 1996
- Giggle Hollow (H-171-52-3): 2000
- Crystal Spring Brook (H-171-52-4): 2000
- Woodchuck Hollow (H-171-52-4-1): 2000
- Cathedral Glen Brook (H-171-52-4-1A): 2000

You will see that all of these streams contain adult and fingerling trout and therefore protection should be given to these streams to ensure that trout and trout spawning habitat is not degraded.

Sincerely,

Michael J. Flaherty  
Senior Aquatic Biologist  
Region 3 Bureau of Fisheries

- cc w/o enclosures:
- A.. Ciesluk (Div. of Environmental Permits, Region 3)
  - W. Elliot (Bureau of Fisheries Region 3)
  - J. Isaacs (Bureau of Habitat Region 3)
  - D. Popp (Bureau of Habitat Region 4)
  - Records Access Office, Region 3 (FOIL #668-3/00)
  - E. Zicca (Div. of Water, Region 3)

## FISH COLLECTION OR SMALL STREAM SURVEY

Survey Delaware Date 7/30/76 Authority W. Adriance  
 Name and key Emory Br. (D-70-80-12) Quad Fleischmanns (7½')  
 Station location 0.2 abv. Mth. County Delaware  
 Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Acres 0.03  
 Flow \_\_\_\_\_ Temp: A 70 W 57 Time (EST) \_\_\_\_\_  
 Gear 230V DC Georator Efficiency (yg trout) 25%  
 Young trout per acre (adjusted total) 1,067  
 Factors: W NSA N 3 H 1 F 1 Total NSA

## General notes:

This station is located adjacent to the school in Flieschmanns beginning 100' below the bridge and proceeding 80' downstream.

This section is located in the Village of Flieschmanns.

573.1

Stocking policy:

94-14-7 (5/76)  
Formerly FW-88

## FISH COLLECTION OR SMALL STREAM SURVEY

Survey Delaware Date 7/30/76 Authority W. Adriance  
 Name and key Emory Br. (70-80-12) Quad West Kill (7½')  
 Station location 0.3 bel. T7 County Delaware  
 Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Acres 0.02  
 Flow \_\_\_\_\_ Temp: A \_\_\_\_\_ W \_\_\_\_\_ Time (EST) \_\_\_\_\_  
 Gear 230V DC Georator Efficiency (yg trout) 10%  
 Young trout per acre (adjusted total) 4,500  
 Factors: W NSA N 3 H 1 F 1 Total NSA

## General notes:

This station begins at the bridge crossing 0.3 mi. below Trib. 7 and proceeds 150' downstream. The stream is heavily shaded by shrubs and alders.

There is an abundance of small trout in this stream, many more than indicated by the collection. Growth rates are poor and food limited.

573.2

Stocking policy:

94-14-7 (5/76)

Name of species	Abundance	Number and description	Name of species	Abundance	Number and description
<u>alvelinus fontinalis</u>	A	yg: 9(2.2-3.1") yr: 14(3.5-4.5") older: 7(4.9-5.5")	<u>Salmo trutta</u>	C+	yg: 8(2.2-2.9") yr: 17(6.0-7.4") older: 4(8.1-11.3")
<u>ottus sp.</u>	C		<u>Salvelinus fontinalis</u>	C	yg: - yr: = older: 1(7.0")
			<u>Cottus sp.</u>	C	

**Recommendations:** Fishing rights, improvement, spearing, commercial bait, set lines or other:

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**Posting Notes**

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**Miscellaneous:**

The upper portion of the stream is in undeveloped woods, the middle in a rural housed area, and the lower section in the Village of Fleischmanns.

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**Stocking Policy:**

Entire; 5.0 miles, BF, ST, NSA

STREAM SURVEY

Name & Key of Stream Emory Brook (D-70-80-12) Quality Classification C(+)

Section Entire Mileage (Section) 5.0 Mileage (Entire) 5.0

County(s) Delaware, Greene Town(s) Middletown, Halcott

Quadrangle(s) Margaretville (15'), Phoenicia (15'), Fleischmanns (7½'), West Kill (7½')

Watershed Delaware Date 7/30/76 Authority W. Adriance

Previous Stocking \_\_\_\_\_

Postage Mileage (Section) \_\_\_\_\_ Posted Mileage (Entire) \_\_\_\_\_

Accessibility (Section) \_\_\_\_\_ Accessibility (Entire) \_\_\_\_\_

Trout Inhabited area (Section) 5.0 Trout inhabited area (Entire) 5.0

Special features (dams, falls, pollution, dredging, erosion, etc.) \_\_\_\_\_

0.3 bel. T7

0.2 abv Mth

Station Location	Upper (3)	Middle (2)	Lower (1)
Average Width (Actual) (Normal)	6'(4.5-15')		15'(10-16')
Depth	1.5':0.1'		1.5':0.18'
Volume	.46 cfs		1.6 cfs
Velocity	mod-low		mod-low
Color	white		white
Turbidity	none		none
Altitude	2,020'		1,515'
Bottom	R, Gr, St,		G, R
Temperature	74 A. W. 58	A. W.	70 A. W. 51
Time-Weather	1:30--cloudy		12:00--cloud
Habitat	(1)		(1)
% Pool	15% G. 1	% G.	40% G. 1
Shelter	1		1
Cover	3		1
Fertility	1		1
Forage	1		1
Soil Type	1		1
Wild Trout (F) No. per Acre	(9) 450		(8) 266
Trout: Non-Trout Estimate by Weight	(3) 50:1		(3) 15:1
Shocker Efficiency Adjusted No. per Acre	10% 4,500		25% 1,067
Length of Shocker Section (feet)	150'		80'

Name of species	Abundance	Number and description
<u>Salvelinus fontinalis</u>		young: 26 (0-4) older: 2 (6-8) 2 (8-10)
<u>Salmo trutta</u>		young: 16 (0-4) older: 6 (4-6) 3 (6-8) 1 (8-10) 4 (10-12) 1 (12-14)
<u>Cottus sp.</u>	C	
<u>Catostomus commersoni</u>	C	

FISH COLLECTION  
or  
SMALL STREAM SURVEY

Survey Delaware Date 8/3/65 Authority Fieldhouse  
Name and key Emory Brook (12-80-70D) Quad Margaretville  
Station location 0.5 abv. mouth County Delaware  
Length 200' Width 12 (5-20) Depth 1.2:0.5 Acres 0.06  
Flow 2 cfs. Temp: A 62 W 55 Time (EST) 5:00 PM.  
Gear 110V-AC Back pack Efficiency (yg trout) 75%  
Young trout per acre (adjusted total) BT=357, ST=577  
Factors: W NSA N 3 H 2 F 1 Total NSA

General notes:

Stocking policy: No change from previous policy.  
BT, ST; NSA



STREAM SURVEY

Name & Key of Stream Emory Brook (D-70-80-12) Quality Classification C(+)

Section Entire Mileage (Section) 5.0 Mileage (Entire) 5.0

County(s) Delaware, Greene Town(s) Middletown, Halcott

Quadrangle(s) Margaretville (15'), Phoenicia (15'), Fleischmanns (7½'), West Kill (7½')

Watershed Delaware Date 7/30/76 Authority W. Adriance

Previous Stocking \_\_\_\_\_

Postage Mileage (Section) \_\_\_\_\_ Posted Mileage (Entire) \_\_\_\_\_

Accessibility (Section) \_\_\_\_\_ Accessibility (Entire) \_\_\_\_\_

Trout Inhabited area (Section) 5.0 Trout inhabited area (Entire) 5.0

Special features (dams, falls, pollution, dredging, erosion, etc.) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of species	Abundance	Number and description	Name of species	Abundance	Number and description
<u>alve</u> <u>linus</u> <u>fontinalis</u>	A	yg: 9(2.2-3.1") yr: 14(3.5-4.5") older: 7(4.9-5.5")	<u>Salmo</u> <u>trutta</u>	C+	yg: 8(2.2-2.9") yr: 17(6.0-7.4") older: 4(8.1-11.3")
<u>ottus</u> sp.	C		<u>Salvelinus</u> <u>fontinalis</u>	C	yg: - yr: = older: 1(7.0")
			<u>Cottus</u> sp.	C	

SL

# STREAM SITE LOCATION RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

396018

FILE NUMBER

1593

MAP

AUTHORITY

FLAHERTY

SURVEY PURPOSE

NAME OF WATER

BIRCH CREEK

Sheet \_\_\_\_\_ of \_\_\_\_\_ Revision Date: 4/95 Coded \_\_\_\_\_

WASHED WATERSHED INDEX NUMBER (from Biological Survey overlay)

LH H-171-52

SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "\*")

1 91696 SHANDAKEN

COUNTY

ULST

WATER CLASS

B(T)

QUADRANGLE SHANDAKEN EDITION 60 QUAD TYPE USGS

SITE DESCRIPTION

0.35 BELOW T1

ALTITUDE 1240 RMI . RMI UP . NYTME 0 NYTMN

SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "\*")

2 91696 SHANDAKEN

COUNTY

ULST

WATER CLASS

B(T)

QUADRANGLE SHADAKEN EDITION 60 QUAD TYPE

SITE DESCRIPTION

JUST ABOVE T2 AND UP 210 FEET

ALTITUDE 1330 RMI . RMI UP . NYTME 0 NYTMN

SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "\*")

3 91696 SHANDAKEN

COUNTY

ULST

WATER CLASS

B(T)

QUADRANGLE WEST KILL EDITION 60 QUAD TYPE USGS

SITE DESCRIPTION

JUST UP FROM P858C TO SMALL INSTREAM DAM

ALTITUDE 1430 RMI . RMI UP . NYTME 0 NYTMN

**STREAM SITE LOCATION RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **FILE NUMBER** - Enter the applicable file number for this water or water segment from the watershed files.
3. **MAP** - Record a "Y" in this field if a detailed map associated to the survey is going to be kept on file in the region.
4. **AUTHORITY** - Record the last name only of the biologist or technician that is in charge of the survey.
5. **SURVEY PURPOSE** - Enter the appropriate code from the list below.
6. **NAME** - Enter the name of the water. Spell out the name in full, including terms such as lake, river, creek, etc. Do not use abbreviations unless absolutely necessary.  
Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
7. **P/S (Pond/Stream)** - Enter a "S" for all stream surveys. If a person wishes to record pond data using this form then "P" must be entered in this space.
8. **WISHED** - Enter the appropriate watershed code from the list below.
9. **WIN (Watershed Index Number)** - For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
10. **SITE NUMBER** - Site numbers are assigned consecutively by the survey party to indicate the location of a sampling effort. Do not record a leading zero with a site number (1, not 01).
11. **DATE** - Enter the month, day and year (MM/DD/YY) data on this form was collected. (Use a leading 0 for days and months less than 10.)
12. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a SL record for this survey, date, and site has been recorded. General survey comments are related to a SL record site 0, where the SITE DESCRIPTION is ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
13. **TOWN/CITY** - Enter the town or city in which the survey site was located. Spell out the name in full. Prefix city names with an "\*". If the site crosses a town or city boundary, record the town or city name of the downstream most point of the survey section.
14. **COUNTY** - Enter the first four letters of the county in which the site is located. If a stream study section crosses more than one county, record the county of the downstream most point of the survey section.
15. **WATER CLASS** - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
16. **QUADRANGLE** - Enter the map quadrangle name on which the survey site is located. If a stream study site crosses more than one quad, record the quadrangle name of the downstream most point of the survey section.
17. **EDITION** - Record the last two digits of the year the map was printed.
18. **QUAD TYPE** - Enter the appropriate code from the list below.
19. **SITE DESCRIPTION** - Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
20. **ALTITUDE** - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
21. **RMI (River Mile Index)** - Streams only. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
22. **RMI UP - Streams only**. If a stream study site is greater than 0.1 miles in length, enter the distance in miles of the upstream most point of the stream study site from the mouth of the stream.
23. **NYTME, NYTMN** - Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

**SURVEY PURPOSE CODES**

Brood stock monitoring	- 1	Rare/endangered species	- 13
Centrarchid sampling plan	- 2	Reclassification	- 14
CROTS survey	- 3	Special regs evaluation	- 15
Egg take	- 4	Stream, protection (Art 15)	- 16
Esocid sampling plan	- 5	Trap and transfer	- 17
Fish kill investigation	- 6	TSMP collection	- 18
Fish salvage operation	- 7	Post-reclamation survey	- 19
General biological survey	- 8	Pre-liming survey	- 20
Percid sampling plan	- 9	Post-liming survey	- 21
Pre-reclamation survey	- 10	Radiation sampling	- 22
Population estimate:		Monitoring of tournaments	- 23
Delury	- 11	Evaluate exp. stocking water	- 24
Petersen	- 12	Whirling disease sampling	- 25
		Other, explain in COMMENTS	- 99

**WATERSHED CODES**

Allegheny	- A	Mohawk	- M
Black	- B	Ontario	- O
Champlain	- C	Oswego	- OS
Chemung	- CM	Oswegatchie	- OW
Delaware	- D	Raquette	- R
Erle-Niagara	- EN	Susquehanna	- S
Genesee	- G	St. Lawrence	- SL
Lower Hudson	- LH	St. Lawrence, Can	- SC
Long Island	- LI	Upper Hudson	- UH

**QUAD TYPE CODES**

NY Dept of Transportation 7.5'	- M
topographic or planimetric mapsheet.	- NYDT
US Geological Survey 7.5'	- USGS
topographic mapsheet.	- US15
US Geological Survey 15'	- 7X15
topographic mapsheet.	- NYBF
US Geological Survey 7.5' X 15'	-
topographic mapsheet.	-
NY Bureau of Fisheries 7.5' mylar overlays.	-

**NOTES:**

# GE

## GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

Act Falk  
Tom Bardonza  
Erica Leonard Smith

Revision Date: 4/95

Coded

Sheet      of     

SITE #	NET/RUN #	GEAR CODE	INVENTORY NUMBER
1		57	

TIME START	TIME STOP	ON-TIME	WATER
1045	1125	.75	60

SECCHI DEPTH	BOTTOM	AC/DC	WAVEFORM	PULSE RATE
		DC		

FLOW	TARGET	FINGERLING EFFICIENCY	YEARLING EFFICIENCY
A	A <sup>1/2</sup>	80	80

BOTTOM COMPOSITION AND ABUNDANCE			
BOTTOM 1	ABD 1	BOTTOM 2	ABD 2
RO	2	CO	2
		BOTTOM 3	ABD 3
		GR	2

SITE #	NET/RUN #	GEAR CODE	INVENTORY NUMBER
2		57	

TIME START	TIME STOP	ON-TIME	WATER
1309	1333	. . .	59

SECCHI DEPTH	BOTTOM	AC/DC	WAVEFORM	PULSE RATE
		DC		

FLOW	TARGET	FINGERLING EFFICIENCY	YEARLING EFFICIENCY
A	A	70	80

BOTTOM COMPOSITION AND ABUNDANCE			
BOTTOM 1	ABD 1	BOTTOM 2	ABD 2
CO	2	RO	2
		BOTTOM 3	ABD 3
		GR	2

WATERSHED CODE LH POND NUMBER     

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52

SURVEY NUMBER	DATE (MM/DD/YY)
396018	9/16/96

WEATHER	RAIN 48	LENGTH of SHORELINE SHOCKED	COMMENTS
CLOUDY			

TEMPERATURE: AIR	TEMP UNITS	CONDUCTIVITY	METHOD
70	F	105	B

AMPERAGE	VOLTAGE	UNITS	BRAIL LENGTH	DC WANDS
	325	2		

OLDER TROUT EFFICIENCY	SCAPPERS	ZERO CATCH	DAMAGE/BIAS
80	1		

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY			
SUBMERGED	EMERGENT	FLOATING	

WEATHER	RAIN 48	LENGTH of SHORELINE SHOCKED	COMMENTS
CLOUDY			

TEMPERATURE: AIR	TEMP UNITS	CONDUCTIVITY	METHOD
72		120	B

AMPERAGE	VOLTAGE	UNITS	BRAIL LENGTH	DC WANDS
	325	2		

OLDER TROUT EFFICIENCY	SCAPPERS	ZERO CATCH	DAMAGE/BIAS
80	1		

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY			
SUBMERGED	EMERGENT	FLOATING	

**ELECTROFISHING GEAR RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. **GEAR CODE** - Enter the appropriate code from the list below.
6. **INVENTORY NUMBER** - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
7. **WEATHER** - Enter the appropriate code from the list below.
8. **RAIN 48** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. **LENGTH of SHORELINE SHOCKED** - Enter the length of shoreline that was fished per run to the nearest yard.
10. **COMMENTS** - Record a "Y" if a comment record, (Rectype CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. **TIME START** - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
12. **TIME STOP** - Record the time that the electrofishing run ended. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
13. **ON-TIME** - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated as for backpack shockers.
14. **WATER TEMPERATURE** - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. **AIR TEMPERATURE** - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. **CONDUCTIVITY** - Record the conductivity of the water to the nearest  $\mu\text{mho}/\text{cm}^3$ .
18. **CONDUCTIVITY METHOD** - Enter the appropriate code from the list below.
19. **SECCHI DEPTH** - Record the secchi depth, or the bottom depth, if the secchi depth and the bottom depth would be equal, to the nearest tenth of a foot.
20. **BOTTOM** - Enter "Y" if the secchi depth equals the bottom depth.
21. **AC/DC** - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. **WAVEFORM** - Enter the appropriate code from the list below
23. **PULSE RATE** - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. **AMPERAGE** - Record the amperage applied to the water, this must come from a meter on the equipment. If <1 amp, record a decimal followed by the number of milliamps.
25. **VOLTAGE** - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. **UNITS** - Enter the number of electroshocking units used in conjunction with each other for this collection effort.
27. **BRAIL LENGTH** - Record the length of the brail to the nearest whole foot.
28. **DC WANDS** - Record the number of DC wands used with an electroshocking system.
29. **FLOW** - Enter the appropriate code from the list below.
30. **TARGET** - Enter the appropriate code from the list below.
31. **FINGERLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. **YEARLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. **OLDER TROUT EFFICIENCY** - Enter the estimate of electrofishing efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. **SCAPPERS** - Record the number of scappers.
35. **ZERO CATCH** - Record "Y" if no fish are captured during the electrofishing effort.
36. **BIAS** - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO).
37. **BOTTOM 1, 2, 3** - Enter the appropriate code from the list below.
38. **ABUNDANCE (ABD) 1, 2, 3** - Enter the appropriate code.
39. **SUBMERGED, EMERGENT, FLOATING** - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**

- CLR - Clear
- CLDY - Cloudy
- HAZY - Hazy
- PCDY - Partly cloudy
- RAIN - Raining
- SNOW - Snowing

**ELECTROFISHING GEAR CODES**

- 57 - Backpack shocker; DC
- 58 - Backpack shocker; Coffelt, AC
- 61 - Electric shocker; Boat, AC
- 62 - Electric shocker; Boat, DC
- 63 - Electric shocker; AC generator
- 64 - Electric shocker; DC generator

**TARGET CODES**

- A - All fish
- B - Bass species
- E - Esocids
- G - Gamefish only
- P - Percids
- T - Trout, all
- F - Trout, fingerlings
- Y - Other, see Comments - 9

**BOTTOM TYPE CODES**

- A - Plant
- B - debris
- E - Vegetated
- G - Unknown
- P - Concrete
- T - Bedrock
- F - Clay
- Y - Mud

- BO - Boulder
- CO - Cobble
- GR - Gravel
- UN - Sand
- SD - Silt
- BR - Marl
- ML - Mud

**CONDUCTIVITY METHOD CODES**

- A - Chemtrix type 700
- B - Presto-tek model DP 03
- C - Poly Pram model DP 30-39
- E - Cole Parmer 1481 - 55
- F - Presto-tek model DSPH - 3
- G - DSPH - 3 Pocket Pal
- H - Whatman CDM510
- I - Cole Parmer 1491 - 62
- J - Hanna HI 8033
- K - Cole Parmer 1500 - 20
- M - Cole Parmer TDS pocket meter
- L - Lab analyzed, identify in comments
- R - ALSC lab in Ray Brook
- Z - See comments for make/model of meter
- 9 - See comments for method

**FLOW CODES**

- A - Gear employed against the current
- B - Gear employed with the current
- W - Gear employed both directions

**WAVEFORM CODES**

- 1 - 1/2 wave (pulsed DC)
- 2 - 3/4 wave
- 3 - Full wave
- 9 - Other, see Comments

**NOTES:**

- ABUNDANCE CODES** - 0 = 1-5%  
 1 = 6-25%; 2 = 26-50%  
 3 = 51-90%; 4 = > 90%



# GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52

POND NUMBER \_\_\_\_\_

Sheet \_\_\_\_\_ of \_\_\_\_\_

Revision Date: 4/95

Coded \_\_\_\_\_

SURVEY NUMBER

396018

DATE (MM/DD/YY)

9/16/96

SITE #

13

NET/RUN #

GEAR CODE

57

INVENTORY NUMBER

WEATHER

CLDY

RAIN 48

LENGTH of SHORELINE SHOCKED

COMMENTS

TIME START

1430

TIME STOP

1450

ON-TIME

0.33

WATER

58.5

TEMPERATURE: AIR

72.

TEMP UNITS

F

CONDUCTIVITY

100

METHOD

B

SECCHI DEPTH

BOTTOM

AC/DC

DC

WAVEFORM

PULSE RATE

AMPERAGE

VOLTAGE

325

UNITS

2

DC WANDS

FLOW

A A

TARGET

FINGERLING EFFICIENCY

75

YEARLING EFFICIENCY

OLDER TROUT EFFICIENCY

75

SCAPPERS

1

ZERO CATCH

DAMAGE/BIAS

BOTTOM COMPOSITION AND ABUNDANCE

BOTTOM 1 ABD 1

C9 2

BOTTOM 2 ABD 2

GR 2

BOTTOM 3 ABD 3

B0 2

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

SUBMERGED

EMERGENT

FLOATING

SITE #

NET/RUN #

GEAR CODE

INVENTORY NUMBER

WEATHER

RAIN 48

LENGTH of SHORELINE SHOCKED

COMMENTS

TIME START

TIME STOP

ON-TIME

WATER

TEMPERATURE: AIR

TEMP UNITS

CONDUCTIVITY

METHOD

SECCHI DEPTH

BOTTOM

AC/DC

WAVEFORM

PULSE RATE

AMPERAGE

VOLTAGE

UNITS

DC WANDS

FLOW

TARGET

FINGERLING EFFICIENCY

YEARLING EFFICIENCY

OLDER TROUT EFFICIENCY

SCAPPERS

ZERO CATCH

DAMAGE/BIAS

BOTTOM COMPOSITION AND ABUNDANCE

BOTTOM 1 ABD 1

BOTTOM 2 ABD 2

BOTTOM 3 ABD 3

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

SUBMERGED

EMERGENT

FLOATING

**ELECTROFISHING GEAR RECORD**  
Coding Instructions. See Data Dictionary for detailed information.

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2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. i.e. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. **GEAR CODE** - Enter the appropriate code from the list below.
6. **INVENTORY NUMBER** - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
7. **WEATHER** - Enter the appropriate code from the list below.
8. **RAIN 48** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. **LENGTH of SHORELINE SHOCKED** - Enter the length of shoreline that was fished per run to the nearest yard.
10. **COMMENTS** - Record a "Y" if a comment record, (Rectype CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. **TIME START** - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
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13. **ON-TIME** - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated, as for backpack shockers.
14. **WATER TEMPERATURE** - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. **AIR TEMPERATURE** - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. **CONDUCTIVITY** - Record the conductivity of the water to the nearest  $\mu\text{mho}/\text{cm}^2$ .
18. **CONDUCTIVITY METHOD** - Enter the appropriate code from the list below.
19. **SECCHI DEPTH** - Record the secchi depth, or the bottom depth, and the bottom depth would be equal, to the nearest tenth of a foot.
20. **BOTTOM** - Enter "Y" if the secchi depth equals the bottom depth.
21. **AC/DC** - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. **WAVEFORM** - Enter the appropriate code from the list below.
23. **PULSE RATE** - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. **AMPERAGE** - Record the amperage applied to the water, this must come from a meter on the equipment. If <1 amp, record a decimal followed by the number of milliamps.
25. **VOLTAGE** - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. **UNITS** - Enter the number of electroshocking units used in conjunction with each other for this collection effort.
27. **BRAIL LENGTH** - Record the length of the brail to the nearest whole foot.
28. **DC WANDS** - Record the number of DC wands used with an electroshocking system.
29. **FLOW** - Enter the appropriate code from the list below.
30. **TARGET** - Enter the appropriate code from the list below.
31. **FINGERLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. **YEARLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. **OLDER TROUT EFFICIENCY** - Enter the estimate of electrofishing efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. **SCAPPERS** - Record the number of scappers.
35. **ZERO CATCH** - Record "Y" if no fish are captured during the electrofishing effort.
36. **BIAS** - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO).
37. **BOTTOM 1, 2, 3** - Enter the appropriate code from the list below.
38. **ABUNDANCE (ABD) 1, 2, 3** - Enter the appropriate code.
39. **SUBMERGED, EMERGENT, FLOATING** - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**

Clear	- CLR
Cloudy	- CLDY
Hazy	- HAZY
Partly cloudy	- PCDY
Raining	- RAIN
Snowing	- SNOW

**ELECTROFISHING GEAR CODES**

Backpack shocker; DC	- 57
Backpack shocker; Coffelt, AC	- 58
Electric shocker; Boat, AC	- 61
Electric shocker; Boat, DC	- 62
Electric shocker; AC generator	- 63
Electric shocker; DC generator	- 64

**TARGET CODES**

All fish	- A	Plant	- BO
Bass species	- B	debris	- CO
Esocids	- E	Vegetated	- GR
Gamefish only	- G	Unknown	- UN
Percids	- P	Concrete	- CT
Trout, all	- T	Bedrock	- BR
Trout, fingerlings	- F	Clay	- ML
Trout, yearlings	- Y	Mud	- MD
Other, see			
Comments	- 9		

**BOTTOM TYPE CODES**

Boulder	- BO
Cobble	- CO
Gravel	- GR
Sand	- SD
Silt	- ST
Marl	- ML
Mud	- MD

**CONDUCTIVITY METHOD CODES**

Chemtrix type 700	- A
Presto-lek model DP 03	- B
Poly Pram model DP 30-39	- C
Cole Parmer 1481-55	- E
Presto-lek model DSPH - 3	- F
DSPH - 3 Pocket Pal	- G
Whitman CDM510	- H
Cole Parmer 1491-62	- I
Hanna HI 8033	- J
Cole Parmer 1500-20	- K
Cole Parmer TDS pocket meter	- M
Lab analyzed, identify in comments	- L
ALSC lab in Ray Brook	- R
See comments for make/model of meter	- Z
See comments for method	- 9

**FLOW CODES**

Gear employed against the current	- A
Gear employed with the current	- B
Gear employed both directions	- W

**WAVEFORM CODES**

1/2 wave (pulsed DC)	- 1
3/4 wave	- 2
Full wave	- 3
Other, see Comments	- 9

**ABUNDANCE CODES** - 0 = 1-5%  
1 = 6-25%; 2 = 26-50%  
3 = 51-90%; 4 = > 90%

**NOTES:**



# SC

## STREAM CHARACTERISTICS RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH

NAME Birch Creek

WATERSHED INDEX NUMBER

A-171-52

Sheet    of   

Revision Date: 4/95

Coded

SURVEY NUMBER

396018

DATE

9/16/96

SITE #

1

TIME	<u>1230</u>	CHANNEL WIDTH	<u>30</u>	MAX DEPTH	<u>3.5</u>	METHOD	<u>8</u>	MEAN DEPTH	<u>1.1</u>	GRADIENT	<u>  </u>	COMMENTS	<u>  </u>
SECTION LENGTH	<u>300</u>	VELOCITY	<u>  </u>	METHOD	<u>8</u>	DISCHARGE	<u>112.0</u>	POOL LENGTH	<u>40</u>	QUALITY	<u>Y</u>	WATER TEMP	<u>70.5</u>
TEMP UNITS	<u>F</u>	DISSOLVED OXYGEN	<u>10.0</u>	METHOD	<u>4</u>	pH	<u>7.2</u>	TOTAL ALKALINITY	<u>41.0</u>	METHOD	<u>4</u>	CONDUCTIVITY	<u>105</u>
METHOD	<u>B</u>												

SHELTER GRADE 3 SHELTER DESCRIPTION BO AND ROCKS SOME UNDER CUT

COVER GRADE 2 COVER DESCRIPTION DEF BRANCHES SOME GRASSES

VEGETATION ABUND. N VEGETATION DESCRIPTION

SHELTER GRADE CODE - Percentage of the stream study section that provides instream shelter (rocks, boulders, undercut banks, etc.): 1 = 0 - 20%; 2 = 21 - 40%; 3 = >40%

COVER GRADE CODE - Percentage of the stream study section covered by overhanging objects (brush, tree branches, bridges, etc.): 1 = 0 - 25%; 2 = 26 - 50%; 3 = >50%

VEGETATION ABUNDANCE - N = None; 0 = 1 - 5%; 1 = 6 - 25%; 2 = 26 - 50%; 3 = 51 - 90%; 4 = >90%; Blank = not evaluated

**CROTS VARIABLES**

Enter Y for present or N for not present, if evaluated.

10 INSECT SPP?	<u>Y</u>	SIMULIDS & HYDROPSYCHIDS?	<u>  </u>	WATERCRESS COMPLEX?	<u>N</u>	INSECT FORAGE?	<u>M</u>	ALGAE ON ROCKS?	<u>L</u>	LEAVES PRESENT?	<u>  </u>	MINNOWS <2.5"	<u>M</u>
----------------	----------	---------------------------	-----------	---------------------	----------	----------------	----------	-----------------	----------	-----------------	-----------	---------------	----------

Enter the proper code, if evaluated: H = High; M = Moderate; L = Low; N = None

WEATHER	<u>CLDY</u>	STREAM CHARACTER CODES	<u>MD FA</u>	BANK DESCRIPTION CODES	<u>DF</u>	BOTTOM TYPE and ABUNDANCE CODES	Bottom 1 ABD 1 <u>BO</u> Bottom 2 ABD 2 <u>CO</u> Bottom 3 ABD 3 <u>GR</u>
Clear - CLR	<u>  </u>	Dry - DY	<u>  </u>	Agriculture - AG	<u>  </u>	Plant Debris - PD	<u>  </u>
Cloudy - CLDY	<u>  </u>	Dry - Pools - DP	<u>  </u>	Bog - BG	<u>  </u>	Mud - MD	<u>  </u>
Hazy - HAZY	<u>  </u>	Fast - FA	<u>  </u>	Coniferous - CF	<u>  </u>	Silt - ST	<u>  </u>
Partly Cloudy - PCDY	<u>  </u>	Low - Flow - LF	<u>  </u>	Deciduous - DF	<u>  </u>	Sand - SD	<u>  </u>
Raining - RAIN	<u>  </u>	Moderate - MD	<u>  </u>	Industrial - IN	<u>  </u>	Gravel - GR	<u>  </u>
Snowing - SNOW	<u>  </u>	Salty - SA	<u>  </u>	Pasture - PA	<u>  </u>	Concrete - CT	<u>  </u>
RAIN 48	<u>  </u>			Meadow - MW	<u>  </u>	Marl - Marl	<u>  </u>
				Mixed forest - MF	<u>  </u>	Boulder - BO	<u>  </u>
						Bedrock - BR	<u>  </u>
						Clay - CL	<u>  </u>
						Vegetated - VG	<u>  </u>
						Unknown - UN	<u>  </u>

Abundance Codes (ABD) 3 = 51 - 90%  
 4 = > 90%  
 N = None 1 = 6 - 25%  
 0 = 1 - 5% 2 = 26 - 50%  
 Blank = not evaluated

**STREAM CHARACTERISTICS RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **TIME** - Record the time that the data collection began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
5. **STREAM WIDTH** - Record the average width of the stream study section from water's edge to water's edge to the nearest whole foot.
6. **CHANNEL WIDTH** - Record the average width of the channel, or streambed (bank to bank) to the nearest whole foot.
7. **MAX DEPTH** - Enter the maximum depth of the water at the site to the nearest tenth of a foot.
8. **MEAN DEPTH** - Enter the average depth of the water at the site to the nearest tenth of a foot.
9. **MEAN DEPTH METHOD** - Enter the appropriate code from the list below.
10. **GRADIENT** - Record the distance, in feet, over which a 40 foot change in elevation occurs, with the site at the center. Determine gradient from topographic maps.
11. **COMMENTS** - Record a "y" if a comment record, (Rectype CO) relating to a SC record for this collection effort (survey, date and site) has been completed.
12. **SECTION LENGTH** - Record the length of the site to the nearest whole foot.
13. **VELOCITY** - Record the average velocity of the stream through the site to the nearest tenth of a foot per second.
14. **VELOCITY METHOD** - Enter the appropriate code from the list below.
15. **DISCHARGE** - Record the average discharge volume through the site to the nearest hundredth of a cubic foot per second.
16. **DISCHARGE METHOD** - Enter the appropriate code from the list below.
17. **POOL LENGTH** - Record the total, summed length of pools in the section to the nearest whole foot.
18. **QUALITY** - Enter "y" if the pools at the site can be considered as high quality trout habitat.
19. **WATER TEMPERATURE** - Record the water temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
20. **AIR TEMPERATURE** - Record the air temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
21. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
22. **DISSOLVED OXYGEN** - Record the concentration of dissolved oxygen at the site to the nearest tenth mg/l.
23. **DISSOLVED OXYGEN METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
24. **pH** - Record the pH of the water at the site to the nearest hundredth.
25. **pH METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
26. **TOTAL ALKALINITY** - Record the total alkalinity of the water at the site in tenths of mg CaCO<sub>3</sub>/l.
27. **TOTAL ALKALINITY METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
28. **CONDUCTIVITY** - Record the conductivity of the water at the site to the nearest  $\mu$ mho/cm<sup>2</sup>.
29. **CONDUCTIVITY METHOD** - Record the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
30. **SHELTER GRADE** - Enter the appropriate code from the list below.
31. **SHELTER DESCRIPTION** - Briefly describe the shelter present in the stream.
32. **COVER GRADE** - Enter the appropriate code from the list below.
33. **COVER DESCRIPTION** - Briefly describe the cover present over the stream.
34. **VEGETATION ABUNDANCE** - Enter the appropriate code from the list below.
35. **VEGETATION DESCRIPTION** - Briefly describe the aquatic vegetation present in the stream.
36. **INSECT SPECIES** - Enter "y" if at least 10 species of aquatic insects are present in the stream, or "N" if there are less than 10 species.
37. **SIMULIIDS & HYDROPSYCHIDS** - Enter "y" if the stream supports abundant simuliids and/or hydropsyichid caddisflies associated with a lake outlet, or "N" if it does not.
38. **WATERCRESS COMPLEX** - Enter "y" if a complex of extremely stable flow, fine gravel bottom, and abundant watercress or other rooted vegetation is present, or "N" if it does not.
39. **INSECT FORAGE** - Enter the code that best describes the abundance and availability of insect forage.
40. **ALGAE** - Enter the code that best describes the abundance of algae on rocks at the site.
41. **LEAVES PRESENT** - Enter the code that best describes the abundance of leaves on the bottom of the stream.
42. **MINNOWS** - Enter the code that best describes the abundance of minnows smaller than 2.5" in the stream.
43. **WEATHER** - Enter the appropriate code from the list below.
44. **RAIN 48** - Enter "y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
45. **STREAM CHARACTER CODES, BANK DESCRIPTION CODES, BOTTOM TYPE CODES, ABUNDANCE (ABD) CODES** - Enter the appropriate codes. Up to three codes may be selected.

MEAN DEPTH METHOD CODES

- |                                   |     |
|-----------------------------------|-----|
| Derived from discharge            | - 1 |
| Mean of Thalweg measurements      | - 2 |
| Mean of cross sectional transects | - 3 |
| Visual estimate                   | - 8 |
| Other, explain in Comments        | - 9 |

VELOCITY METHOD CODES

- |                     |     |
|---------------------|-----|
| Floater method      | - 1 |
| Salt slug method    | - 2 |
| Velocity meter      | - 7 |
| Visual estimate     | - 8 |
| Other, see Comments | - 9 |

DISCHARGE METHOD CODES

- |  |     |   |     |
|--|-----|---|-----|
| Direct measurement of discharge  | - 1 | Salt slug                                     | - 6 |
| Dye method   | - 2 | Velocity meter, cross sectional area measured | - 7 |
| Floater used to estimate velocity, cross sectional area measured for discharge | - 3 | Visual estimate                               | - 8 |
| Gauge readings and conversion charts   | - 4 | Other method, explain in Comments             | - 9 |
| Salt brick   | - 5 |   |     |



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet      of     

Revision Date: 7/96

Coded

WATERSHED CODE LH POND NUMBER     

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52

SURVEY NUMBER

396018

DATE (MM/DD/YY)

9/16/96

SITE #

1

NET/RUN #

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C	O	M	M
	1	BT	165	50					
	2	BT	239	150					
	3	BT	311	300	4				
	4	BT	237	150	2				
	5	RT	204	90	2				
	6	CLM	96	10					
	7	CLM	98	10					
	8	BT	249	180	3				
	9	RT	155	50	1				
	10	RT	185	70	1				
	11	BT	153	40	1				
	12	BT	159	50	1				
	13	BT	171	55	1				
	14	RT	143	35	1				
	15	RT	193	80	2				
	16	BT	155	45	1				
	17	RT	153	45	1				
	18	BT	137	30	1				

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C	O	M	M
	19	BT	167	50	2				
	20	BT	141	35	1				
	21	RT	142	30	1				
	22	RT	168	65	2				
	23	RT	128	30	1				
	24	RT	153	45	1				
	25	BT	142	35	1				
	26	BT	162	42	1				
	27	RT	146	40	1				
	28	RT	149	40	1				
	29	RT	152	40	1				
	30	RT	137	35	1				
	31	RT	150	25	1				
	32	ST	146	35	1				
	33	RT	163	50	1				
	34	BT	356	540	3				
	35	BT	156	40	1				
	36	RT	143	40	1				



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet      of     

Revision Date: 7/96

Coded

WATERSHED CODE LH

POND NUMBER     

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52

SURVEY NUMBER 396018

DATE (MM/DD/YY) 09 16 96

SITE # 1

NETRUN #     

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	37	BT	260	170	2	
	38	BT	267	190	3	
	39	BT	190	70	2	
	40	BT	233	140	2	
	41	BT	135	30	1	
	42	BT	172	60	1	
	43	RT	133	30	1	
	44	RT	154	50	1	
	45	BT	150	40	1	
	46	RT	79			
	47	RT	93			
	48	RT	84			
	49	RT	83			
	50	RT	101			
	51	RT	90			
	52	RT	85			
	53	RT	96			
	54	RT	91			

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	55	RT	85			
	56	RT	91			
	57	RT	97			
	58	RT	84			
	59	RT	89			
	60	RT	86			
	61	RT	86			
	62	RT	82			
	63	RT	84			
	64	RT	82			
	65	RT	82			
	66	RT	97			
	67	RT	73			
	68	RT	77			
	69	RT	92			
	70	RT	74			
	71	RT	87			
	72	ST	90			



SC

# STREAM CHARACTERISTICS RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH NAME Birch Creek  
WATERSHED INDEX NUMBER H-171-52

Sheet    of    Revision Date: 4/95 Coded     
SURVEY NUMBER 396018 DATE (MM/DD/YY) 9/16/96 SITE # 2

TIME	STREAM WIDTH	CHANNEL WIDTH	MAX DEPTH	MEAN DEPTH	METHOD	GRADIENT	COMMENTS
1345	15	30	2	0.7	8		

SECTION LENGTH	VELOCITY	METHOD	DISCHARGE	METHOD	POOL LENGTH	QUALITY	WATER TEMP	AIR TEMP	TEMP UNITS
210	.		9	8	30	N	59	72	F

DISSOLVED OXYGEN	METHOD	pH	TOTAL ALKALINITY	METHOD	CONDUCTIVITY	METHOD
9	4	7.3	34.2	4	120	2

SHELTER GRADE 2 SHELTER DESCRIPTION SOME UNDERCUT

COVER GRADE 2 COVER DESCRIPTION DF AND BRUSH

VEGETATION ABUND. 0 VEGETATION DESCRIPTION   

SHELTER GRADE CODE - Percentage of the stream study section that provides instream shelter (rocks, boulders, undercut banks, etc.): 1 = 0 - 20%; 2 = 21 - 40%; 3 = >40%

COVER GRADE CODE - Percentage of the stream study section covered by overhanging objects (brush, tree branches, bridges, etc.): 1 = 0 - 25%; 2 = 26 - 50%; 3 = >50%

VEGETATION ABUNDANCE - N = None; 0 = 1 - 5%; 1 = 6 - 25%; 2 = 26 - 50%; 3 = 51 - 90%; 4 = >90%; Blank = not evaluated

Enter Y for present or N for not present, if evaluated. **CROTS VARIABLES** Enter the proper code, if evaluated: H = High; M = Moderate; L = Low; N = None

10 INSECT SPP? <u>Y</u>	SIMULIIDS & HYDROPSYCHIDS? <u>  </u>	WATERCRESS COMPLEX? <u>  </u>	INSECT FORAGE? <u>M</u>	ALGAE ON ROCKS? <u>L</u>	LEAVES PRESENT? <u>  </u>	MINNOWS < 2.5' <u>M</u>
-------------------------	--------------------------------------	-------------------------------	-------------------------	--------------------------	---------------------------	-------------------------

WEATHER	STREAM CHARACTER CODES	BANK DESCRIPTION CODES	BOTTOM TYPE and ABUNDANCE CODES
CLDY	MD EASL	DF	Bottom 1 ABD 1: CO 2
Clear - CLR	Dry - DY	Agriculture - AG	Bottom 2 ABD 2: BO 2
Cloudy - CLDY	Dry - Pools - DP	Bog - BG	Bottom 3 ABD 3: GR 2
Hazy - HAZY	Fast - FA	Coniferous - CF	Plant Debris - PD
Partly	Low - Flow - LF	Deciduous - DF	Mud - MD
Cloudy - PCDY	Moderate - MD	Industrial - IN	Silt - ST
Raining - RAIN	Salty - SA	Pasture - PA	Sand - SD
Snowing - SNOW		Meadow - MW	Gravel - GR
RAIN 48 <u>  </u>		Mixed forest - MF	Cobble - CO
		Urban - UR	Boulder - BO
			Bedrock - BR
			Clay - CL
			Concrete - CT
			Marl - ML
			Vegetated - VG
			Unknown - UN

Abundance Codes (ABD) 3 = 51 - 90%  
4 = > 90%  
Blank = not evaluated

**STREAM CHARACTERISTICS RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
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4. **TIME** - Record the time that the data collection began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
5. **STREAM WIDTH** - Record the average width of the stream study section from water's edge to water's edge to the nearest whole foot.
6. **CHANNEL WIDTH** - Record the average width of the channel, or streambed (bank to bank) to the nearest whole foot.
7. **MAX DEPTH** - Enter the maximum depth of the water at the site to the nearest tenth of a foot.
8. **MEAN DEPTH** - Enter the average depth of the water at the site to the nearest tenth of a foot.
9. **MEAN DEPTH METHOD** - Enter the appropriate code from the list below.
10. **GRADIENT** - Record the distance, in feet, over which a 40 foot change in elevation occurs, with the site at the center. Determine gradient from topographic maps.
11. **COMMENTS** - Record a "Y" if a comment record, (Rectype CO) relating to a SC record for this collection effort (survey, date and site) has been completed.
12. **SECTION LENGTH** - Record the length of the site to the nearest whole foot.
13. **VELOCITY** - Record the average velocity of the stream through the site to the nearest tenth of a foot per second.
14. **VELOCITY METHOD** - Enter the appropriate code from the list below.
15. **DISCHARGE** - Record the average discharge volume through the site to the nearest hundredth of a cubic foot per second.
16. **DISCHARGE METHOD** - Enter the appropriate code from the list below.
17. **POOL LENGTH** - Record the total, summed length of pools in the section to the nearest whole foot.
18. **QUALITY** - Enter "Y" if the pools at the site can be considered as high quality trout habitat.
19. **WATER TEMPERATURE** - Record the water temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
20. **AIR TEMPERATURE** - Record the air temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
21. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
22. **DISSOLVED OXYGEN** - Record the concentration of dissolved oxygen at the site to the nearest tenth mg/l.
23. **DISSOLVED OXYGEN METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
24. **pH** - Record the pH of the water at the site to the nearest hundredth.
25. **pH METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
26. **TOTAL ALKALINITY** - Record the total alkalinity of the water at the site in tenths of mg CaCO<sub>3</sub>/l
27. **TOTAL ALKALINITY METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
28. **CONDUCTIVITY** - Record the conductivity of the water at the site to the nearest  $\mu$ mho/cm<sup>2</sup>.
29. **CONDUCTIVITY METHOD** - Record the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
30. **SHELTER GRADE** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
31. **SHELTER DESCRIPTION** - Briefly describe the shelter present in the stream.
32. **COVER GRADE** - Enter the appropriate code from the list below.
33. **COVER DESCRIPTION** - Briefly describe the cover present over the stream.
34. **VEGETATION ABUNDANCE** - Enter the appropriate code from the list below.
35. **VEGETATION DESCRIPTION** - Briefly describe the aquatic vegetation present in the stream.
36. **INSECT SPECIES** - Enter "Y" if at least 10 species of aquatic insects are present in the stream, or "N" if there are less than 10 species.
37. **SIMULIIDS & HYDROPSYCHIDS** - Enter "Y" if the stream supports abundant simuliids and/or hydropsychid caddisflies associated with a lake outlet, or "N" if it does not.
38. **WATERCRESS COMPLEX** - Enter "Y" if a complex of extremely stable flow, fine gravel bottom, and abundant watercress or other rooted vegetation is present, or "N" if it does not.
39. **INSECT FORAGE** - Enter the code that best describes the abundance and availability of insect forage.
40. **ALGAE** - Enter the code that best describes the abundance of algae on rocks at the site.
41. **LEAVES PRESENT** - Enter the code that best describes the abundance of leaves on the bottom of the stream.
42. **MINNOWS** - Enter the code that best describes the abundance of minnows smaller than 2.5" in the stream.
43. **WEATHER** - Enter the appropriate code from the list below.
44. **RAIN 48** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
45. **STREAM CHARACTER CODES, BANK DESCRIPTION CODES, BOTTOM TYPE CODES, ABUNDANCE (ABD) CODES** - Enter the appropriate codes. Up to three codes may be selected.

**MEAN DEPTH METHOD CODES**

Derived from discharge	- 1
Mean of Thalweg measurements	- 2
Mean of cross sectional transects	- 3
Visual estimate	- 8
Other, explain in Comments	- 9

**VELOCITY METHOD CODES**

Floot method	- 1
Salt slug method	- 2
Velocity meter	- 7
Visual estimate	- 8
Other, see Comments	- 9

**DISCHARGE METHOD CODES**

Direct measurement of discharge	- 1
Dye method	- 2
Floot used to estimate velocity, cross sectional area measured for discharge	- 3
Gauge readings and conversion charts	- 4
Salt brick	- 5
Velocity meter, cross sectional area measured	- 7
Visual estimate	- 8
Other method, explain in Comments	- 9



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

*just above road up*

Sheet      of      Revision Date: 7/96 Coded     

WATERSHED CODE LH POND NUMBER     

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) H171-52

SURVEY NUMBER

396018

DATE (MM/DD/YY)

9 16 96

SITE #

2

NET/RUN #

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C	O	M	M
	1	RT	170	60	1				
	2	BT	207	105	2				
	3	RT	159	35	1				
	4	RT	139	22	1				
	5	BT	183	71	1				
	6	RT	183	67	1				
	7	RT	169	49	1				
	8	RT	150	32	1				
	9	RT	153	33	1				
	10	BT	140	39	1				
	11	RT	75						
	12	LMS	150	35					
	13	BND	53						
	14	BND	74						



SC

STREAM CHARACTERISTICS RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

yst up from Pine Hill  
Diversions Lake  
Coded

Sheet \_\_\_ of \_\_\_ Revision Date: 4/95

WATERSHED CODE LH  
WATERSHED INDEX NUMBER H-171-52

NAME Bitch Creek

SURVEY NUMBER 396018 DATE (MM/DD/YY) 9/16/96 SITE # 3

TIME	1505	CHANNEL WIDTH	30	MAX DEPTH	2.5	MEAN DEPTH	.5	METHOD	8	GRADIENT		COMMENTS	
SECTION LENGTH	208	VELOCITY	.	METHOD	9	POOL LENGTH	10	QUALITY	58.5	AIR TEMP	73	TEMP UNITS	F
DISSOLVED OXYGEN	9.	METHOD	4	pH	7.0	TOTAL ALKALINITY	27.4	METHOD	4	CONDUCTIVITY	100	METHOD	B

SHELTER GRADE

COVER GRADE

VEGETATION ABUND.

SHELTER DESCRIPTION

COVER DESCRIPTION

VEGETATION DESCRIPTION

SHELTER GRADE CODE - Percentage of the stream study section that provides instream shelter (rocks, boulders, undercut banks, etc.): 1 = 0 - 20%; 2 = 21 - 40%; 3 = >40%

COVER GRADE CODE - Percentage of the stream study section covered by overhanging objects (brush, tree branches, bridges, etc.): 1 = 0 - 25%; 2 = 26 - 50%; 3 = >50%

VEGETATION ABUNDANCE - N = None; 0 = 1 - 5%; 1 = 6 - 25%; 2 = 26 - 50%; 3 = 51 - 90%; 4 = >90%; Blank = not evaluated

10 INSECT SPP?

WATERCRESS COMPLEX?

INSECT FORAGE?

ALGAE ON ROCKS?

LEAVES PRESENT?

MINNOWS < 2.5"

WEATHER CLDY

STREAM CHARACTER CODES

BANK DESCRIPTION CODES

BOTTOM TYPE and ABUNDANCE CODES

Abundance Codes (ABD) 3 = 51 - 90% 4 = > 90% Blank = not evaluated

CROTS VARIABLES

Enter Y for present or N for not present, if evaluated. Enter the proper code, if evaluated: H = High; M = Moderate; L = Low; N = None

**STREAM CHARACTERISTICS RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **TIME** - Record the time that the data collection began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
5. **STREAM WIDTH** - Record the average width of the stream study section from water's edge to water's edge to the nearest whole foot.
6. **CHANNEL WIDTH** - Record the average width of the channel, or streambed (bank to bank) to the nearest whole foot.
7. **MAX DEPTH** - Enter the maximum depth of the water at the site to the nearest tenth of a foot.
8. **MEAN DEPTH** - Enter the average depth of the water at the site to the nearest tenth of a foot.
9. **MEAN DEPTH METHOD** - Enter the appropriate code from the list below.
10. **GRADIENT** - Record the distance, in feet, over which a 40 foot change in elevation occurs, with the site at the center. Determine gradient from topographic maps.
11. **COMMENTS** - Record a "Y" if a comment record, (Rectype CO) relating to a SC record for this collection effort (survey, date and site) has been completed.
12. **SECTION LENGTH** - Record the length of the site to the nearest whole foot.
13. **VELOCITY** - Record the average velocity of the stream through the site to the nearest tenth of a foot per second.
14. **VELOCITY METHOD** - Enter the appropriate code from the list below.
15. **DISCHARGE** - Record the average discharge volume through the site to the nearest hundredth of a cubic foot per second.
16. **DISCHARGE METHOD** - Enter the appropriate code from the list below.
17. **POOL LENGTH** - Record the total, summed length of pools in the section to the nearest whole foot.
18. **QUALITY** - Enter "Y" if the pools at the site can be considered as high quality trout habitat.
19. **WATER TEMPERATURE** - Record the water temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
20. **AIR TEMPERATURE** - Record the air temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
21. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
22. **DISSOLVED OXYGEN** - Record the concentration of dissolved oxygen at the site to the nearest tenth mg/l.
23. **DISSOLVED OXYGEN METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
24. **pH** - Record the pH of the water at the site to the nearest hundredth.
25. **pH METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
26. **TOTAL ALKALINITY** - Record the total alkalinity of the water at the site in tenths of mg CaCO<sub>3</sub>/l.
27. **TOTAL ALKALINITY METHOD** - Enter the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
28. **CONDUCTIVITY** - Record the conductivity of the water at the site to the nearest  $\mu\text{mho}/\text{cm}^2$ .
29. **CONDUCTIVITY METHOD** - Record the appropriate code from the list on the back of the **WATER CHEMISTRY RECORD (Rectype C)**.
30. **SHELTER GRADE** - Enter the appropriate code from the list below.
31. **SHELTER DESCRIPTION** - Briefly describe the shelter present in the stream.
32. **COVER GRADE** - Enter the appropriate code from the list below.
33. **COVER DESCRIPTION** - Briefly describe the cover present over the stream.
34. **VEGETATION ABUNDANCE** - Enter the appropriate code from the list below.
35. **VEGETATION DESCRIPTION** - Briefly describe the aquatic vegetation present in the stream.
36. **INSECT SPECIES** - Enter "Y" if at least 10 species of aquatic insects are present in the stream, or "N" if there are less than 10 species.
37. **SIMULIIDS & HYDROPSYCHIDS** - Enter "Y" if the stream supports abundant simuliids and/or hydropsychid caddisflies associated with a lake outlet, or "N" if it does not.
38. **WATERCRESS COMPLEX** - Enter "Y" if a complex of extremely stable flow, fine gravel bottom, and abundant watercress or other rooted vegetation is present, or "N" if it does not.
39. **INSECT FORAGE** - Enter the code that best describes the abundance and availability of insect forage.
40. **ALGAE** - Enter the code that best describes the abundance of algae on rocks at the site.
41. **LEAVES PRESENT** - Enter the code that best describes the abundance of leaves on the bottom of the stream.
42. **MINNOWS** - Enter the code that best describes the abundance of minnows smaller than 2.5" in the stream.
43. **WEATHER** - Enter the appropriate code from the list below.
44. **RAIN 48** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
45. **STREAM CHARACTER CODES, BANK DESCRIPTION CODES, BOTTOM TYPE CODES, ABUNDANCE (ABD) CODES** - Enter the appropriate codes. Up to three codes may be selected.

**MEAN DEPTH METHOD CODES**

- 1 Derived from discharge
- 2 Mean of Thalweg measurements
- 3 Mean of cross sectional transects
- 8 Visual estimate
- 9 Other, explain in Comments

**VELOCITY METHOD CODES**

- 1 Float method
- 2 Salt slug method
- 7 Velocity meter
- 8 Visual estimate
- 9 Other, see Comments

**DISCHARGE METHOD CODES**

- 1 Direct measurement of discharge
- 2 Dye method
- 3 Float used to estimate velocity, cross sectional area measured for discharge
- 4 Gauge readings and conversion charts
- 5 Salt brick



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

*to create*  
*7.0 pH 4/21/96*  
*ag D.O.*

Sheet      of     

Revision Date: 7/96

Coded

WATERSHED CODE CH

POND NUMBER     

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) A-171-52

SURVEY NUMBER 396018

DATE (MM/DD/YY) 9 16 96

SITE # 3

NET/RUN #     

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	COM
	1	BT	253	165	3	
	2	BT	273	175	2	
	3	BT	232	123	2	
	4	BT	257	152	3	♂
	5	BT	245	152	3	♂
	6	BT	188	72	2	♀
	7	BT	185	60	2	
	8	BT	168	40	1	
	9	BT	180	68	2	
	10	BT	152	35	1	
	11	BT	141	30	1	
	12	RT	138	29	1	
	13	RT	130	23	1	
	14	BT	138	29	1	
	15	BT	134	23	1	
	16	BT	125	18	1	
	17	BT	128	19	1	
	18	RT	127	22	1	

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	COM
	19	RT	123	19	1	
	20	BT	143	23	1	
	21	BT	85			
	22	RT	71			
	23	RT	73			
	24	RT	74			
	25	RT	67			
	26	RT	83			
	27	RT	65			
	28	RT	70			
	29	RT	76			
	30	RT	65			
	31	RT	78			
	32	RT	63			
	33	RT	60			
	34	RT	85			
	35	RT	81			
	36	RT	66			



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet      of     

Revision Date: 7/96

Coded

WATERSHED CODE 47

POND NUMBER     

NAME OF WATER Birch Creek

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52

SURVEY NUMBER

DATE (MM/DD/YY)

SITE #

NET/RUN #

396018

9 16 96

3

PANEL NO

FISH NUMBER

SPECIES CODE

LENGTH (MM)

WEIGHT (GM)

AGE

C  
O  
M  
M

37

RT

79

38

RT

80

39

RT

64

40

RT

73

41

RT

77

42

RT

74

**BF****BULK FISH RECORD**

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH

POND NUMBER \_\_\_\_\_

NAME OF WATER Birch CreekWATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52

Sheet \_\_\_\_\_ of \_\_\_\_\_

Revision Date: 4/95

Coded \_\_\_\_\_

SURVEY NUMBER

396018

DATE (MM/DD/YY)

9 16 96

DO NOT SUMMARIZE, OR INCLUDE ANY FISH DESCRIBED INDIVIDUALLY ON IF RECORDS.

SITE #	NET/RUN #	PANEL #	FISH SPECIES CODE	NUMBER CAUGHT/OBSERVED	MINIMUM LENGTH (mm)	MAXIMUM LENGTH (mm)	V A L I D	STAGE	S E X	TOTAL WEIGHT (gm)	SUB-SAMPLE WEIGHT (gm)	NUMBER In SUB-SAMPLE	C O M M
1			RT	22	66	92				160			
1			SS	21	45	87				100			
1			IND	11	89	120				140			
1			IND	35	53	73				100			
2			RT	59	56	95				275			
2			WS	39	50	83				122			
2			SS	18	46	87				102			
2			IND	4	66	115				68			
3			RT	60	60	88				190			

**BULK CATCH DESCRIPTIVE DATA RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - The number that corresponds to the electrofishing run, trawl run or seine haul during which the fish described was caught.
5. **PANEL NUMBER** - Enter the panel number in which the fish was caught. Panel numbers are assigned to specific mesh sizes in the Gear Description (GD) record. If gear codes 1, 18, or 19 are used instead of an inventory number, then panel numbers are assigned consecutively beginning with 1, from smallest to largest mesh.
6. **SPECIES CODE** - Enter the appropriate code. For species not listed, refer to: A Comprehensive Fish Species Code List for Inland and Marine Fishes of New York State by Kretser, Dudones, and Bonham, NYSDEC Publication, October 1980. Commonly accepted abbreviations such as LMB, ST, BT, etc. may also be entered instead of numerical codes.
7. **NUMBER CAUGHT (OR OBSERVED)** - Enter the number of fish in the catch, either actual or estimated.
8. **MINIMUM LENGTH** - Enter the total length of the smallest fish in the collection, in millimeters.
9. **MAXIMUM LENGTH** - Enter the total length of the largest fish in the collection, in millimeters.
10. **VALIDITY** - Enter the appropriate code that best describes the accuracy of the data recorded in the **NUMBER CAUGHT**, **MINIMUM LENGTH**, and **MAXIMUM LENGTH** fields. Always complete this field for every species recorded!
11. **STAGE** - Enter the appropriate code from the list below.
12. **SEX** - Enter "M" for male and "F" for female. Leave blank if unknown or undetermined.
13. **TOTAL WEIGHT** - Enter the combined weight for all of the fish captured, when weighed as one single sample. Record weights in grams.
14. **SUB-SAMPLE WEIGHT** - If the catch is divided into sub-samples, record the weight of each sub-sample, in grams. This line of data MUST refer to the sub-sample only.
15. **NUMBER IN SUB-SAMPLE** - If the catch is divided into sub-samples, record the number of fish in the sub-sample. This line of data MUST refer to the sub-sample only.
16. **COMMENTS** - Enter "Y" if a comment record (Rectype CO) relating to a BF record for this survey, date, site, net/run, and species has been completed.

**SOME COMMON SPECIES CODES & SPEED CODES**

Alawife	- 289; AL	Largemouth bass	- 601; LMB
American eel	- 276; AME	Mottled sculpin	- 885; MS
Atlantic salmon	- 327; LLS	Muskellunge	- 348; MSK
Banded killifish	- 531; KF	Northern pike	- 347; NP
Black crapple	- 603; COB	Pumpkinseed	- 596; PS
Blacknose dace	- 402; BND	Rainbow smelt	- 335; RSM
Blueback herring	- 285; BLU	Rainbow trout	- 326; RT
Bluegill	- 598; BGS	Redbreast sunfish	
Brook trout	- 329; ST	X Pumpkinseed	- 589
Brown bullhead	- 444; BB	Redfin pickerel	- 345
Brown trout	- 328; BT	Rock bass	- 591; RB
Channel catfish	- 445; CHG	Slimy sculpin	- 866; SS
Chain pickerel	- 349; PKL	Smallmouth bass	- 600; SMB
Chinook salmon	- 322	Splake	- 332
Coho salmon	- 320	Striped bass	- 577
Common carp	- 365	Striped bass	
Common shiner	- 385; CSH	X White bass	- 578
Creek chub	- 406; CC	Tiger musky	- 350
Fallfish	- 407; FF	Tiger trout	- 333
Gizzard shad	- 294; GIZ	Walleye	- 626; PP
Golden shiner	- 377; GS	White perch	- 575; WP
Grass pickerel	- 346	White sucker	- 419; WS
Lake trout	- 330; LT	Yellow perch	- 617; YP

**STAGE CODES**

Adult	- AD
Hard, green	- HD
Immature	- IM
Older	- OL
Ripe, gravid, unspent	- RP
Smolt	- SM
Spent	- SP
Young of the year	- YY

**USING the BF RECORD for WHNF "N" CALCULATIONS**

WHNF "N" calculations call for catches of non-trout species to be broken down into size classes in order to estimate their competitive impact on stocked trout. WHNF "N" determinations are also necessary for CROTS stocking calculations. To use this form for WHNF "N" determinations, record the VALIDITY CODE as D, divide the catch by species and into the following size classes:

65 - 125	( 2.5 - 5.0 in)
126 - 250	( 5.1 - 10.0 in)
251 - 380	(10.1 - 15.0 in)
381 - 500	(15.1 - 20.0 in)
>	500 ( > 20.0 in)

**VALIDITY CODES**

Fish caught, counted, and measured	- A
Fish caught, counted, smallest and largest measured	- B
Fish caught, counted, measurements estimated	- C
Fish caught, counted, measurements reflect length frequency classes	- D (Use with CROTS surveys only)
Fish caught, numbers estimated, smallest and largest measured	- E
Fish caught, numbers estimated, measurements estimated	- F
Fish observed, numbers estimated, measurements estimated	- G
Bulk weight of individual fish recorded on the IF forms	- H
Other, explain in comment records	- I

**NOTES:**

STREAM SURVEY

Submitted for  
BATS road to BATS  
9/86

Name & Key of Stream Birch Creek (52-171LH) Quality Classification B(T)

Section Entire Mileage (Section) \_\_\_\_\_ Mileage (Entire) 6.8 mi

County(s) Ulster Town(s) Shandaken

Quadrangle(s) Shandaken, West Kill

Watershed Lower Hudson Date 7/3/80 Authority Wm. H. Kelly

Previous Stocking \_\_\_\_\_

Postage Mileage (Section) \_\_\_\_\_ Posted Mileage (Entire) \_\_\_\_\_

Accessibility (Section) \_\_\_\_\_ Accessibility (Entire) \_\_\_\_\_

Trout Inhabited area (Section) \_\_\_\_\_ Trout inhabited area (Entire) \_\_\_\_\_

Special features (dams, falls, pollution, dredging, erosion, etc.) \_\_\_\_\_

Note: Hatcheries ST collected at stations 1 were from experimental stocking earlier in the year. VPE (Mike Gray, Forest Commissioner, 9/13/84)

Station Location	Upper (3)	Middle (2)	Lower (1)
Average Width (Actual) (Normal)		10.5(7)	21(40)
Depth		0.4(1.5)	0.7(3.0)
Volume		2.9 cfs	26 cfs
Velocity		Moderate	Moderate
Color		White	White
Turbidity		Clear	Sl. Turbid
Altitude		1860	1230
Bottom		Bo, R, Gr	Bo, R, Gr
Temperature	A. W.	64 A. 54W.	77 A. 65W.
Time-Weather		11:30AM Fair	2:40PM Fair
Habitat % Pool Shelter Cover	% G.	H=2 % G.	H=2 % G.
Fertility Forage Soil Type		F=1	F=2
Wild Trout <del>(#)</del> No. per Acre		440 ST 1600 BT	860
Trout: Non-Trout Estimate by Weight		N=3	N=2
Shocker Efficiency Adjusted No. per Acre		25	25%
Length of Shocker Section (feet)		300	300'
		Station 2 0.5 mi above T4a	Station 1 0.5 miles above mouth  Lasher Road



Tributary number	Length	Width and depth	Flow	Pools	Food	Air	Water	Time and weather	Bottom	Cover	Stocking policy
1 mth. Ike Smith Bk.	1.9mi.	2'8"x2"	½cfs	Cf	II-	64	56	2:15 clo	R&gr	fair	180B.T.
2 mth.	1.3mi.	2'4'x1'3"	Trout seen	25gpm Cf	II-	64	58.5	2:35 clo	R&gr	fair	Dry*, none
		dry below road.			Reported to go dry.						
3 mth. Giggle Hollow Bk.	0.6mi.	4'5'x2'6"	200gpm C	1200 (1931)	III	64	53	2:45 clo	sand	good	180B.T.
4 mth. above 2.0mi.	2.0mi.	4'10'x6'2"	1cfs Bf	Bf	III-	64	53	2:50 clo	Bo & R	good	200B.T., 100
		Crystal Spring Bk.*	Trout seen	2"-6"							
1-4	0.5mi.										Not seen
		Previous stocking B.T.		1934 800	'35 300.						
		Previous stocking B. T.		1931 1932 1933 1934	400 450		1934 1600	1935 600			

Height			3' dam ? pool
Area and depth of pond			
Pollution Location of outflow			
Nature, extent, index organisms			
Character of region		wide bed- good cover from over- hanging trees.	open wide rock bed- poor cover.

Posted area:

Section of stream Between T1 and T2 Mileage 0.5

Owner's name and address Molyneux & other posting by James Vredenburgh.

Miscellaneous (1) 3' dam being constructed here. not yet holding water.

18' dam 100 yds. above T3. Temp. below this dam-air 64°-water 64°- trout reported here-pond 10 acres.

(2) Posted 0.2 mi. above T4-no name. Excellent looking trout water here.

Water suitable for:

	Section	Mileage	Number
S. T.	Partially posted,	500 B.T., 200 R.T.	
B. T.			
R. T.			
Other fish			

Name of species	Abundance	Seine	Gill net	Number and description
<u>Cottus cognatus</u>	C			10 juv-ad
<u>Salmo fario</u>	C/			2-10" tl } 1-8" tl } 4 yg-juv=31, 33 } 105, 118mm. } (saved) } others: seen
<u>Rhinichthys a. stronatus</u>	C/			4 ad
<u>Rhinichthys cataractae</u>	C-			1 ad
<u>Catostomus c. commersonii</u>				1 ad. seen
<del>Cat. No. 458-462, inc.</del>				

released

Req. 356. FG9Je38. 6-13-38-10,000 (16-9943) Survey Lower Hudson  
 Drainage Hudson Coll. no. M. A. Hall #21  
 Locality T52 (Birch Cr.) of H171 (Esopus Cr.) at mouth at  
Big Indian, N. Y.  
 County Ulster Quadrangle Phoenicia Elevation 1200  
 Water clear; white Flow                      Width to 25'  
 Vegetation some algae  
 Bottom sd, r, gr, bo Current mod.  
 Shore wooded; houses Distance from shore shore to shore  
 Temperature: Air 78½° F Water 62½° F Time 12M Weather clear  
 Depth of capture 0-2½' Depth of water 0-1' to 5' in pool.  
 Method of capture 6' seine  
 Collected by U. Stone; M. Hall Date June 17, 1936  
 Orig. preserv. 10% form. Time 11:25-12:10  
 General notes: History of stocking and angling; fishing conditions and size of fish, etc.

Good trout water. Pools & cover (Rocks & logs) good. Food good; caddis, stone fly, may fly, dragon fly larvae and annelids present.

Cottus eggs in coll?

1593.2

Name of species	Abundance	Seine	Gill net	Number and description
<u>Salmo fario</u>	C/			2 retained juv. 97 & 111 mm  Several Release no. 1 - 10 in t.l. 2 - 9 in t.l. 2 - 8 in t.l. 2 - 4 in t.l. 1 - 5 in t.l. 2 - 3 in t.l.
<p>Several others seen.</p> <p><u>*Salamanders (larvae)</u></p>				<p>34 sp.</p>
<p><u>Cat. No. 451 &amp; 452, inc.</u></p>				

Req. 356. FG9Je38. 6-13-38-10,000 (16-9943) Survey..... **Lower Hudson**  
 Drainage..... **Hudson**..... Coll. no. **M.A. Hall #20**  
 Locality..... **T52 (Birch Cr.) of H171 (Esopus Cr.) at Pine Hill, N. Y., 1/8 mi. above mouth of T4**  
 County..... **Ulster**..... Quadrangle..... **Phoenicia**..... Elevation..... **1527'**  
 Water..... **clear white**..... Flow..... ..... Width..... **10'**  
 Vegetation..... **sparse**..... **some algae on rocks**  
 Bottom..... **gr, r, bo**..... Current..... **mod.**  
 Shore..... **wooded; village**..... Distance from shore..... **shore to shore**  
 Temperature: Air..... **71°F**..... Water..... **56°F**..... Time..... **11 AM**..... Weather..... **clear**  
 Depth of capture..... **0-1'**..... Depth of water..... **same**  
 Method of capture..... **6' seine**  
 Collected by..... **U. Stone; M. Hall**..... Date..... **June 17, 1936**  
 Orig. preserv..... **10% form.**..... Time..... **10:30-11:00**  
 General notes: History of stocking and angling; fishing conditions and size of fish, etc.

Good brown trout stream at this point; rather small stream for big trout. Pools & cover fair. Food abdt: stoneflies, mayflies, etc. abdt. as nymphs. Caddis & beetle larvae. No minnows seen.

The eggs in coll. were found under large flat rock in a group attached individually by slender gelatinous threads, attached to the under side of the rock & covering an area of 3-4 sq. in.

S - 3 TU P.T.  
 J - 2 TU P.T.  
 S - 4 TU P.T.  
 S - 8 TU P.T.  
 S - 8 TU P.T.  
 J - 10 TU P.T.  
 NO.

SEARCHED INDEXED

JUN 21 1936  
 U.S. DEPARTMENT OF AGRICULTURE

1593.1

JUN 21 1936

04

Bond & Tasker  
 Sept. 3, 1936

1/2 mi. from  
 mouth

(2)

Region Station	Upper 1/2 mi. mth.	0.2 above Middle T4	(1) Lower
Width		8'15" x 4"18"	15'25" x 4"1"
Flow	4-5 cfs	1 1/2 cfs	1 1/2 cfs
Velocity		mod-to rapid	moderate
Color		clear	clear
Turbidity		white	white
Air temperature	67	64°	65°
Water temperature	62	55°	62°
Hour and weather	11:10 hazy	3:00 clo	2:05 clo.
Altitude		1550	1300
Pools: size, type, frequency		2-2-1	3-3-2
Pool grade		B	C+
Fish Food: Mayflies		com	com+
Stoneflies			com
Caddisflies		few	few
Blackflies		com	Few
Midges		few	com
Shrimp			
Minnows			
Other forage			
Food grade		II	II
Bottom composition		Bo & R	rubble
Vegetation			
Springs Location			
Flow and temperature			
Dams and Falls Location			0.1 mi. below T3

1593

5000 FG-27-Ap 37 Req. 183 (16-7736)

NEW YORK STATE CONSERVATION DEPARTMENT  
STREAM SURVEY

Number and name of stream 52 (Birch Cr.) or (Pine Hill Str.)

Section E Length 6.8 miles

Tributary to 171-Hudson River

Town Shandaken  
Quadrangle Phoenicia & Margaretville

River system Lower Hudson

County Ulster Authority Downs & Bond Date June 24, 1936

Previous stocking See below

Coll. Hall 20-T52 (Birch Cr.) - H171, 1/8 mi. above mouth of T4-Cat. No. 451

Remarks: " " 21-T52 ( " " ) - " at mouth-Cat. No. 458-462, inc. 452, inc.

S.T.fing.	1926	1927	1928	1929	1930	1932	1933	1934	1935
	<u>700</u>	<u>700</u>	<u>1800</u>	<u>5600</u>	<u>400</u>	<u>4000</u>	<u>4000</u>	<u>1600</u>	<u>1600</u>
S.T.fry	3000	4200	...	10000	...	...	...	...	...





**Recommendations:** Fishing rights, improvement, spearing, commercial bait, set lines or other:

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**Posting Notes**

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**Miscellaneous:**

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**Stocking Policy:**

Entire, 6.8 miles, B.T.(N.S.A.)

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BIRCH CREEK (52-171HR)  
Section #4 (1.5 mi. abv. T4)

Salmo trutta ..... 90

W N H F

W = 1549

BT - NSA

159384

Section #3 0.5 mi. abv. T-3

Salmo trutta ..... 123

Rhinichthys atratulus .... 130

Rhinichthys cataractae.... 45

Exoglossum maxilllingua .... 1

BIRCH CREEK (52-171-HR)

Section #1, 0.5 mi. abv. mouth

W N H F

Salmo trutta ..... 45

Salmo gairdnerii ..... 12

Cottus sp. .... 190

Rhinichthys cataractae... 81

Rhinichthys atratulus ... abdt.

Exoglossum maxillingua .... 37

Catostoma commersonni..... 55

W = 290 BT/acre

BT (NSA) .....

(OVER)

Section #2, 0.2 mi. bel. T-53

Salmo trutta .....	102
Rhinichthys atratulus .....	55
Rhinichthys cataractae .....	20
Salmo gairdnerii .....	5
Catostomus commersonii .....	8

1.5 mi. abv. T-4    0.5 mi. abv. T-3    0.2 mi. bel. T-2    0.5 mi. abv. mc

Station Location 6' (3-10')	Upper (3)	Middle (2)	Lower (1)
Average Width (Actual) (Normal)	14' (12-29)	13' (12-18)	10' (3-15)
Depth 4" (2-8")	4" (2-8")	4" (2-12")	6 (2-12")
Volume	2 cfs	3 cfs	2-3 cfs
Velocity Slow	Slow	Slow	Slow
Color White	Wh.	Wh.	Wh.
Turbidity ----	....	....	.....
Altitude 1780	1500	1480	1220
Bottom Bo, Gr.	R, Gr.	B.	Bo, R., Gr.
Temperature 66A. W. 56	69 A. W. 63	69 A. W. 64	60 A. W. 63
Time-Weather 12:00 Clo.	11:30 Clo.	11:00 Clo.	9:00 Clo.
Habitat 1	1	2	2
% Pool 10% G1	10 % G. 1	70% G. 2	20 % G. 2
Shelter 1	1	2	2
Cover 2	1	1	1
Fertility 1	2	2	2
Forage 2	2	2	3
Soil Type 1	1	1	1
Wild Trout (F) NSA No. per Acre 1549 BTF/ acre	NSA 1089 BTF/acre	NSA 927 BTF/acre	NSA 290 BTF/acre
Trout: Non-Trout Estimate by Weight 3	3	3	3
Shocker Efficiency 90% Adjusted No. per Acre	90%	90%	95%
Length of Shocker Section (feet) 300'	300'	300'	300'

NEW YORK STATE CONSERVATION DEPARTMENT

STREAM SURVEY

Name & Key of Stream Birch Cr. or Pine Hill Stream (52-171HR)

Section E. Mileage (Section) \_\_\_\_\_ Mileage (Entire) 6.8 mi.

County(s) Ulster Town(s) Shandaken

Quadrangle(s) Phoenicia and Margaretville

Watershed IH Date 27 Aug. 1956 Authority Gould and Saladino

Previous Stocking \_\_\_\_\_

Postage Mileage (Section) \_\_\_\_\_ Posted Mileage (Entire) \_\_\_\_\_

Accessibility (Section) \_\_\_\_\_ Accessibility (Entire) \_\_\_\_\_

Trout inhabited area (Section) \_\_\_\_\_ Trout inhabited area (Entire) \_\_\_\_\_

Special features (dams, falls, pollution, dredging, erosion, etc.) \_\_\_\_\_



## FISH COLLECTION OR SMALL STREAM SURVEY

Station 1

Survey Lower Hudson Date 7/3/80 Authority Wm. H. KellyName and key Birch Creek (52-171LH) Quad Shandaken  
Lasher RoadStation location 0.5 mi above mouth County UlsterLength 300' Width 21' Depth 0.7(3.0) Acres 0.15Flow 26 cfs Temp: A 77 W 65 Time (EDT) 2:40 PM  
(EST)Gear 230 VAC Generation Efficiency (YXXXXX) 25%

Wild (adults)

Young trout per acre (adjusted total) 860Factors: W NSA N 2 H 2 F 2 Total NSA 8

**General notes:** Stream higher than normal following rain.  
Excellent section for fishing. No BT fins collected  
or seen. One RT fing (1.5" collected). March flood  
may have restricted BT spawning success.

pH=7.0

M.O.=21ppm

D.O.=10ppm

Specific Conductivity = 43 mmhos

Stocking policy:

NSA 8 : RT, BT

94-14-7 (5/76)

Formerly FW-88

Name of species	Abundance	Number and description
Salmo Gairdneri		18(3.8-9.9") 1.4 lbs
Salmo Trutta		13(4.2-11.6") 2.9 lbs
Salvelinus Fontinalis (hatchery)		3(8.0-9.6") 0.9 lbs.
Catostomus Commersoni		4(8.7-13.8") 2.6 lbs
Catostomus Cutostomus		7(6.5-11.6") 2.2 lbs
<del>Cottus</del> (sp)		30(2.0-3.4") 0.3 lbs
Rhinichthys Atratulus		3(2.8-3.5") trace
Exoglossum Max- illingua		2(4.2, 4.7) 0.1 lbs
Rhinichthys Cataractae		5 (3.8-4.3") 0.1 lbs

## FISH COLLECTION OR SMALL STREAM SURVEY

Station 2Survey Lower Hudson Date 7/3/80 Authority Wm. H. KellyName and key Birch Creek (52-171LH) Quad West KillStation location 0.5 mi below T4a County Ulster  
(17)Length 300' Width 10.5 Depth 0.4(1.5) Acres 0.07Flow 2.9 cfs Temp: A 64 W 54 Time 11:30AM  
EDTGear 230 VAC Generation Efficiency (yg trout) 25%Young trout per acre (~~adjusted total~~) 1600 BT + 440 STFactors: W NSA N 3 H 2 F 1 Total NSA 6

General notes: Only trout were collected. No other species observed. Typical headwater wild trout environment.  
pH=7.0  
D.O.=9ppm

Specific Conductivity = 25 mmhos

Stocking policy:

94-14-7 (5/76)

Formerly FW-88

Name of species	Abundance	Number and description
Salmo Trutta		29 (3.2-7.7") 1.95 lbs
Salvelinus Fontinalis		8 (4.0-5.8") 0.45 lbs

STREAM SURVEY

Name & Key of Stream LOST CLOVE (53-171 HR)

Section Entire Mileage (Section) 1.5 mi. Mileage (Entire) 1.5 mi.

County(s) Ulster Town(s) Shandaken

Quadrangle(s) Phoenix

Watershed Lower Hudson Date 8/27/57 Authority J. Gould, J. Saladino

Previous Stocking \_\_\_\_\_

Postage Mileage (Section) \_\_\_\_\_ Posted Mileage (Entire) \_\_\_\_\_

Accessibility (Section) \_\_\_\_\_ Accessibility (Entire) \_\_\_\_\_

Trout inhabited area (Section) \_\_\_\_\_ Trout inhabited area (Entire) \_\_\_\_\_

Special features (dams, falls, pollution, dredging, erosion, etc.) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Station Location	Upper (3)	Middle (2)	Lower (1)
Average Width (Actual) (Normal)			5 (3-12)
Depth			4 (2-8)
Volume			0.5 - 1 CFS
Velocity			Slow
Color			Wh.
Turbidity			.....
Altitude			1220
Bottom			Bo, R, Gr.
Temperature	A. W.	A. W.	76 A. W. 66
Time-Weather			2:00PM-Pt. Clo.
Habitat			2
% Pool	% G.	% G.	76 % G. 2
Shelter			2
Cover			2
Fertility			2
Forage			2
Soil Type			1
Wild Trout (F) No. per Acre			522 NSA
Trout: Non-Trout Estimate by Weight			
Shocker Efficiency Adjusted No. per Acre			90%
Length of Shocker Section (feet)			300'

LOST CLOVE BROOK (53-171 HR)

Section #1, 0.1 mi. abv. mouth

	W	N	H	F
Cottus sp. ....				
Rhinichthys atratulus...				
Salmo trutta .....				
Salmo gairdnerii .....				
Rhinichthys cataractae ..				
Salvelinus fontinalis ...				
				BT (NSA)
				Abundant
				"
				19
				15
				7
				4

1568.51 ?

**Recommendations:** Fishing rights, improvement, spearing, commercial bait, set lines or other:

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**Posting Notes**

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**Miscellaneous:**

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**Stocking Policy:**

Entire, 1.5 mi., BT (NSA)



**Recommendations:** Fishing rights, improvement, spearing, commercial bait, set lines or other:

---

**Posting Notes**

---

**Miscellaneous:**

---

**Stocking Policy:**

Entire 6.8 miles, BT, RT, ST, NSA



NYSDEC Bureau of Fisheries  
Stream Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

=====  
Site Information

Survey Purpose: Trap and transfer

Authority: FLAHERTY

WIN: H-171-52

Site	Date	Description	RMI	RMIup
----	----	-----	---	-----
1	11/09/93	JUST UPSTREAM OF T3 Town: SHANDAKEN                      Cnty: Ulster                      Quad: WEST KILL	1.9	
2	11/09/93	50 FT UPSTREAM OF UPSTREAM LIMIT OF SITE 1 Town: SHANDAKEN                      Cnty: Ulster                      Quad: WEST KILL	1.9	
3	11/09/93	50 FT UPSTREAM OF UPSTREAM LIMIT OF SITE 2 Town: SHANDAKEN                      Cnty: Ulster                      Quad: WEST KILL	1.9	

NYSDEC Bureau of Fisheries  
Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

Water Chemistry

Date: 11/09/93 Site #: 1  
Time start: 1200 Secchi depth: ft Color:  
Time stop: Bottom depth: ft Turbidity:  
Air temp: C Weather: Cloudy Surface  
F Rain 48: Conditions:

Methods - Dissolved Oxygen: Hach kit  
pH: Hach kit  
Total Alkalinity: Hach kit  
Conductivity: Presto-tek model DP 03

Sample Depth (ft)	Water Temperature C	Water Temperature F	Dissolved Oxygen (mg/l)	pH	Total Alkalinity (mg CaCO <sub>3</sub> /l)	Conductivity (umhos)	Pt-Co Color
.1			10.0	6.30	13.7	80	

Date: 11/09/93 Site #: 3  
Time start: 1515 Secchi depth: ft Color:  
Time stop: Bottom depth: ft Turbidity:  
Air temp: C Weather: Clear Surface  
F Rain 48: Conditions:

Methods - Dissolved Oxygen:  
pH:  
Total Alkalinity:  
Conductivity: Presto-tek model DP 03

Sample Depth (ft)	Water Temperature C	Water Temperature F	Dissolved Oxygen (mg/l)	pH	Total Alkalinity (mg CaCO <sub>3</sub> /l)	Conductivity (umhos)	Pt-Co Color
.1						143	

NYSDEC Bureau of Fisheries  
Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

=====  
Electrofishing Gear

Date: 11/09/93

Site #: 1

Net/Run #:

Gear: Backpack shocker; DC

Time start: 1100                      Water temp:                      C                      F  
Time stop: 1125                      Air temp:                      C                      F  
On-time: .33 hr                      Weather:                      Rain 48:  
Conductivity: 80 umhos  
Method: Presto-tek model DP 03

AC/DC: DC                      Pulse rate:  
Amperage:                      Voltage: 350  
# of units: 2                      # of DC wands:  
# of scappers: 2                      Brail length: ft  
Waveform:                      Flow: Gear employed against the current

Target: Trout, all

Efficiencies - Fingerling: 33%    Yearling: 50%    Older Trout or All: 50%

Date: 11/09/93

Site #: 2

Net/Run #:

Gear: Backpack shocker; DC

Time start: 1205                      Water temp:                      C                      F  
Time stop: 1230                      Air temp:                      C                      F  
On-time: .41 hr                      Weather:                      Rain 48:

AC/DC: DC                      Pulse rate:  
Amperage:                      Voltage: 350  
# of units: 2                      # of DC wands:  
# of scappers: 2                      Brail length: ft  
Waveform:                      Flow: Gear employed against the current

Target: Trout, all

Efficiencies - Fingerling: 33%    Yearling: 50%    Older Trout or All: 50%

NYSDEC Bureau of Fisheries  
Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

=====  
Electrofishing Gear

Date: 11/09/93

Site #: 3

Net/Run #:

Gear: Backpack shocker; DC

Time start: 1410                      Water temp:                      C                      F  
Time stop: 1500                      Air temp:                      C                      F  
On-time: .83 hr                      Weather:                      Rain 48:  
Conductivity: 143 umhos  
Method: Presto-tek model DP 03

AC/DC: DC                      Pulse rate:  
Amperage:                      Voltage: 350  
# of units: 2                      # of DC wands:  
# of scappers: 2                      Brail length: ft  
Waveform:                      Flow: Gear employed against the current

Target: Trout, all

Efficiencies - Fingerling: 25%    Yearling: 40%    Older Trout or All: 50%

NYSDEC Bureau of Fisheries  
Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

Individual Fish Information

\*\*\*\*\* Number of Occurrences \*\*\*\*\*

Fish Species  
-----  
Number Caught  
-----  
Length (mm)  
Min Max  
-----  
Weight (g)  
Min Max  
-----  
Com Wild Stage Sex Age Appl Pres Pan  
-----  
Marks  
-----

Date: 11/09/93 Site #: 1

RAINBOW TROUT 30 67 197  
BROWN TROUT 47 66 230

2

Date: 11/09/93 Site #: 2

RAINBOW TROUT 84 62 326  
BROWN TROUT 36 84 426 130 450

8  
12

Date: 11/09/93 Site #: 3

RAINBOW TROUT 17 67 151  
BROWN TROUT 6 135 231

NYSDEC Bureau of Fisheries  
Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

=====  
Bulk Fish data

<u>Fish</u> <u>Species</u> -----	<u>Number</u> <u>Caught</u> -----	<u>Length (mm)</u> <u>Min Max</u> -----		<u>Total</u> <u>Weight (g)</u> -----	<u>Stage</u> -----	<u>Sex</u> -----	<u>Pan</u> <u>#</u> -----
--	---	---	--	--	-----------------------	---------------------	---------------------------------

Date: 11/09/93

Site #: 3

Net/Run #:

<u>FISH CAUGHT, COUNTED, MEASUREMENTS ESTIMATED</u>				
RAINBOW TROUT	87	60	150	
BROWN TROUT	12	60	105	



NYSDEC Bureau of Fisheries  
Survey Report

File #: 1593

BIRCH CREEK

Lower Hudson watershed

Survey #: 393049

=====  
Comments

Date: 11/09/93

Site #: 1

Net/run #:

**Stream Site Location**

THIS SECTION OF BIRCH CR HAS A PETITION ON FILE FOR UPGRADING  
FROM A B(T) TO A B(TS) CLASSIFICATION STANDARD

Date: 11/09/93

Site #: 2

Net/run #:

**Stream Characteristics**

THIS SECTION WAS BISECTED BY THE OUTLET FLOW OF PINE HILL LAKE  
AND SOME MINIMAL FLOW FROM A BLACK PLASTIC PIPE (WATER CONDO.  
50) CONDO. ABOVE THIS WAS 143

\* \* \* \* \*  
 \* BIRCH CREEK 10/06/1989 \*  
 \* Survey # Site # Watershed \*  
 \* 389007 1 LOWER HUDSON \*  
 \* \* \* \* \*

File #  
 1593

\*\*\* See Comments \*\*\*

Survey Purpose : TRAP AND TRANSFER

Authority : PIERCE

Watershed Index Number H-171-52  
 Water Class: B(T)

=== Site Description ===

DOWNSTREAM END STARTS 0.1 MI ABOVE T3

=== Map References ===

County : ULSTER  
 Township : SHANDAKEN  
 Quadrangle : WEST KILL (1960 USGS)

Altitude (ft)	NYTME	NYTMN	RMI	RMI Up	Stream Length (mi)
1410	05435	47637	2.1	2.4	6.5

==== Stream Biological & Physical Data =====

Survey #: 389007 Site #: 1 10/06/1989  
 Time: 1000 Weather: CLEAR

=== Section Desc. ===

Section Length (ft): 1700  
 Stream Width (ft): 15  
 Channel Width (ft): 15  
 Gradient (ft/40 ft drop): 2000  
 Pool Length (ft): 85

=== Flow ===

Max Depth (ft): 1.5  
 Mean Depth (ft): .5  
 Conductivity:  
 Velocity (fps): 2.0  
 Discharge (cfs): 10.0

=== Methods ===

Mean Depth: VISUAL ESTIMATE  
 Velocity: VISUAL ESTIMATE  
 Discharge: VISUAL ESTIMATE

=== Stream Character ===  
 FAST

=== Bank Description ===  
 MEADOW

=== Bottom Type and Abundance ===

COBBLE 51 - 90%  
 BOULDER 6 - 25%  
 GRAVEL 6 - 25%

=== Shelter Grade and Description ===  
0 - 20% CHANNEL CONSTRUCTED IN 1986-87

=== Cover Grade and Description ===  
0 - 25% ALMOST NO SHADE

=== Vegetation Abundance and Description ===  
1 - 5%

=== CROTS Factors ===

10 or more Insect Species: PRESENT  
Simuliids and Hydropshychids: PRESENT

Insect Forage abundance: HIGH  
Algae abundance On Rocks: LOW  
Leaf abundance On Bottom: LOW  
Minnows < 2.5 in. abundance: LOW

===== Gear Performance & Description =====  
Survey #: 389007 Site #: 1 10/06/1989  
Gear Type: BACKPACK SHOCKER: DC  
Weather: CLEAR

== Time, Chemical and Physical Info ==  
Time Start: 1000 Air Temp(F):  
Time Stop: 1300 Water Temp(F):  
On-Time: 2.0 hrs Conductivity:  
Secchi Depth (ft): .1

== Gear Settings, Readings and Configurations ==  
AC/DC: DC Pulse Rate:  
Amperage: Voltage:  
No. of Units: 2 No. of DC Wands: 2  
No. of Scappers: 3 Direction Fished: AGAINST THE CURRENT

== Target ==  
TROUT, ALL

== Efficiencies ==  
Fingerling: 20%  
Yearling: 25%  
Older Trout: 25%

===== Gear Details =====

Electroshocker Model: DEC BACK PACK

=====  
 ===== Summary Statistics for Individual Fish Records =====

Survey #: 389007      Site #: 1      10/06/1989

Species	Number Caught	Min mm (in)	Max mm (in)	Mean mm (in)	SD mm (in)
---------	---------------	----------------	----------------	-----------------	---------------

-----  
 Gear Type: BACKPACK SHOCKER: DC  
 Effort: 2.00 (hrs)

RAINBOW TROUT CPUE = 33	66	60 (2.4)	208 (8.2)	122 (4.8)	45 (1.8)
BROWN TROUT CPUE = 86	172	67 (2.6)	322 (12.7)	110 (4.3)	44.8 (1.8)
BROOK TROUT CPUE = 0.5	1	115 (4.5)			

=====  
 ===== Individual Fish Records =====  
 =====

Survey #: 389007      Site #: 1      10/06/1989

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage	Sex	Age	Pan#	Fish#
BROWN TROUT	67 (2.6)						226
BROWN TROUT	69 (2.7)						83
BROWN TROUT	70 (2.8)						225
BROWN TROUT	70 (2.8)						224
BROWN TROUT	71 (2.8)						223
BROWN TROUT	73 (2.9)						158
BROWN TROUT	73 (2.9)						151
BROWN TROUT	74 (2.9)						157
BROWN TROUT	74 (2.9)						146
BROWN TROUT	74 (2.9)						118
BROWN TROUT	75 (3.0)						236
BROWN TROUT	75 (3.0)						216
BROWN TROUT	75 (3.0)						213
BROWN TROUT	75 (3.0)						206
BROWN TROUT	75 (3.0)						196
BROWN TROUT	75 (3.0)						187
BROWN TROUT	76 (3.0)						133
BROWN TROUT	76 (3.0)						89
BROWN TROUT	76 (3.0)						79
BROWN TROUT	77 (3.0)						207
BROWN TROUT	77 (3.0)						86
BROWN TROUT	77 (3.0)						78
BROWN TROUT	78 (3.1)						230
BROWN TROUT	78 (3.1)						211
BROWN TROUT	78 (3.1)						185
BROWN TROUT	78 (3.1)						114
BROWN TROUT	79 (3.1)						237
BROWN TROUT	79 (3.1)						131
BROWN TROUT	80 (3.2)						235
BROWN TROUT	80 (3.2)						227
BROWN TROUT	80 (3.2)						222
BROWN TROUT	80 (3.2)						197
BROWN TROUT	80 (3.2)						127
BROWN TROUT	80 (3.2)						85
BROWN TROUT	80 (3.2)						82
BROWN TROUT	80 (3.2)						72
BROWN TROUT	81 (3.2)						148
BROWN TROUT	81 (3.2)						123
BROWN TROUT	82 (3.2)						220
BROWN TROUT	82 (3.2)						192
BROWN TROUT	82 (3.2)						179
BROWN TROUT	82 (3.2)						106
BROWN TROUT	83 (3.3)						145
BROWN TROUT	84 (3.3)						180
BROWN TROUT	85 (3.3)						234
BROWN TROUT	85 (3.3)						233
BROWN TROUT	85 (3.3)						232
BROWN TROUT	85 (3.3)						210
BROWN TROUT	85 (3.3)						194
BROWN TROUT	85 (3.3)						191
BROWN TROUT	85 (3.3)						186

=====  
 ===== Individual Fish Records =====  
 =====

Survey #: 389007      Site #: 1      10/06/1989

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage Sex Age Pan#	Fish#
BROWN TROUT	85 (3.3)			154
BROWN TROUT	85 (3.3)			147
BROWN TROUT	85 (3.3)			130
BROWN TROUT	85 (3.3)			126
BROWN TROUT	85 (3.3)			119
BROWN TROUT	85 (3.3)			71
BROWN TROUT	87 (3.4)			155
BROWN TROUT	87 (3.4)			129
BROWN TROUT	87 (3.4)			74
BROWN TROUT	88 (3.5)			231
BROWN TROUT	88 (3.5)			219
BROWN TROUT	88 (3.5)			199
BROWN TROUT	88 (3.5)			188
BROWN TROUT	88 (3.5)			176
BROWN TROUT	88 (3.5)			173
BROWN TROUT	88 (3.5)			138
BROWN TROUT	88 (3.5)			80
BROWN TROUT	89 (3.5)			134
BROWN TROUT	89 (3.5)			115
BROWN TROUT	90 (3.5)			218
BROWN TROUT	90 (3.5)			215
BROWN TROUT	90 (3.5)			201
BROWN TROUT	90 (3.5)			189
BROWN TROUT	90 (3.5)			183
BROWN TROUT	90 (3.5)			159
BROWN TROUT	90 (3.5)			125
BROWN TROUT	90 (3.5)			122
BROWN TROUT	90 (3.5)			77
BROWN TROUT	91 (3.6)			184
BROWN TROUT	91 (3.6)			156
BROWN TROUT	91 (3.6)			76
BROWN TROUT	92 (3.6)			181
BROWN TROUT	92 (3.6)			150
BROWN TROUT	92 (3.6)			140
BROWN TROUT	92 (3.6)			117
BROWN TROUT	92 (3.6)			69
BROWN TROUT	93 (3.7)			214
BROWN TROUT	93 (3.7)			135
BROWN TROUT	94 (3.7)			209
BROWN TROUT	94 (3.7)			202
BROWN TROUT	94 (3.7)			175
BROWN TROUT	94 (3.7)			136
BROWN TROUT	94 (3.7)			132
BROWN TROUT	94 (3.7)			87
BROWN TROUT	95 (3.7)			228
BROWN TROUT	95 (3.7)			217
BROWN TROUT	95 (3.7)			208
BROWN TROUT	95 (3.7)			204
BROWN TROUT	95 (3.7)			193
BROWN TROUT	95 (3.7)			190
BROWN TROUT	95 (3.7)			170

=====  
 ===== Individual Fish Records =====

Survey #: 389007      Site #: 1      10/06/1989

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage	Sex	Age	Pan#	Fish#
BROWN TROUT	95 (3.7)						168
BROWN TROUT	95 (3.7)						162
BROWN TROUT	95 (3.7)						143
BROWN TROUT	96 (3.8)						149
BROWN TROUT	96 (3.8)						139
BROWN TROUT	97 (3.8)						152
BROWN TROUT	97 (3.8)						100
BROWN TROUT	98 (3.9)						212
BROWN TROUT	98 (3.9)						203
BROWN TROUT	98 (3.9)						164
BROWN TROUT	98 (3.9)						66
BROWN TROUT	99 (3.9)						153
BROWN TROUT	99 (3.9)						113
BROWN TROUT	99 (3.9)						75
BROWN TROUT	100 (3.9)						229
BROWN TROUT	100 (3.9)						200
BROWN TROUT	100 (3.9)						195
BROWN TROUT	100 (3.9)						163
BROWN TROUT	100 (3.9)						128
BROWN TROUT	100 (3.9)						120
BROWN TROUT	100 (3.9)						116
BROWN TROUT	102 (4.0)						88
BROWN TROUT	103 (4.1)						124
BROWN TROUT	105 (4.1)						167
BROWN TROUT	105 (4.1)						121
BROWN TROUT	105 (4.1)						73
BROWN TROUT	125 (4.9)						109
BROWN TROUT	132 (5.2)						165
BROWN TROUT	133 (5.2)						182
BROWN TROUT	134 (5.3)						144
BROWN TROUT	137 (5.4)						221
BROWN TROUT	140 (5.5)						178
BROWN TROUT	144 (5.7)						81
BROWN TROUT	145 (5.7)						141
BROWN TROUT	146 (5.8)						198
BROWN TROUT	148 (5.8)						177
BROWN TROUT	149 (5.9)						108
BROWN TROUT	150 (5.9)						205
BROWN TROUT	150 (5.9)						99
BROWN TROUT	151 (5.9)						142
BROWN TROUT	152 (6.0)						105
BROWN TROUT	152 (6.0)						84
BROWN TROUT	153 (6.0)						112
BROWN TROUT	153 (6.0)						110
BROWN TROUT	160 (6.3)						98
BROWN TROUT	163 (6.4)						97
BROWN TROUT	163 (6.4)						96
BROWN TROUT	164 (6.5)						104
BROWN TROUT	165 (6.5)						107
BROWN TROUT	165 (6.5)						92
BROWN TROUT	168 (6.6)						166

=====  
 ===== Individual Fish Records =====  
 =====

Survey #: 389007

Site #: 1

10/06/1989

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage	Sex	Age	Pan#	Fish#
BROWN TROUT	168 (6.6)						102
BROWN TROUT	170 (6.7)						172
BROWN TROUT	172 (6.8)						169
BROWN TROUT	172 (6.8)						90
BROWN TROUT	173 (6.8)						111
BROWN TROUT	175 (6.9)						68
BROWN TROUT	176 (6.9)						174
BROWN TROUT	176 (6.9)						171
BROWN TROUT	178 (7.0)						95
BROWN TROUT	178 (7.0)						93
BROWN TROUT	178 (7.0)						67
BROWN TROUT	185 (7.3)						160
BROWN TROUT	230 (9.1)						137
BROWN TROUT	235 (9.3)						161
BROWN TROUT	265 (10.4)						103
BROWN TROUT	265 (10.4)						91
BROWN TROUT	265 (10.4)						70
BROWN TROUT	271 (10.7)						94
BROWN TROUT	322 (12.7)						101
RAINBOW TROUT	60 (2.4)						34
RAINBOW TROUT	62 (2.4)						31
RAINBOW TROUT	63 (2.5)						36
RAINBOW TROUT	63 (2.5)						17
RAINBOW TROUT	67 (2.6)						39
RAINBOW TROUT	67 (2.6)						15
RAINBOW TROUT	68 (2.7)						37
RAINBOW TROUT	68 (2.7)						35
RAINBOW TROUT	70 (2.8)						65
RAINBOW TROUT	70 (2.8)						38
RAINBOW TROUT	72 (2.8)						29
RAINBOW TROUT	72 (2.8)						16
RAINBOW TROUT	73 (2.9)						64
RAINBOW TROUT	74 (2.9)						60
RAINBOW TROUT	74 (2.9)						48
RAINBOW TROUT	75 (3.0)						56
RAINBOW TROUT	75 (3.0)						53
RAINBOW TROUT	75 (3.0)						51
RAINBOW TROUT	77 (3.0)						55
RAINBOW TROUT	77 (3.0)						49
RAINBOW TROUT	80 (3.2)						52
RAINBOW TROUT	80 (3.2)						47
RAINBOW TROUT	80 (3.2)						33
RAINBOW TROUT	80 (3.2)						13
RAINBOW TROUT	87 (3.4)						54
RAINBOW TROUT	91 (3.6)						50
RAINBOW TROUT	120 (4.7)						25
RAINBOW TROUT	122 (4.8)						4
RAINBOW TROUT	125 (4.9)						12
RAINBOW TROUT	127 (5.0)						26
RAINBOW TROUT	128 (5.0)						238
RAINBOW TROUT	130 (5.1)						28



=====  
 ===== Individual Fish Records =====  
 =====

Survey #: 389007      Site #: 1      10/06/1989

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage Sex Age Pan# Fish#
RAINBOW TROUT	132 (5.2)		239
RAINBOW TROUT	133 (5.2)		61
RAINBOW TROUT	133 (5.2)		45
RAINBOW TROUT	133 (5.2)		42
RAINBOW TROUT	134 (5.3)		21
RAINBOW TROUT	135 (5.3)		2
RAINBOW TROUT	138 (5.4)		3
RAINBOW TROUT	139 (5.5)		32
RAINBOW TROUT	140 (5.5)		46
RAINBOW TROUT	140 (5.5)		7
RAINBOW TROUT	142 (5.6)		62
RAINBOW TROUT	142 (5.6)		44
RAINBOW TROUT	142 (5.6)		6
RAINBOW TROUT	145 (5.7)		27
RAINBOW TROUT	145 (5.7)		24
RAINBOW TROUT	145 (5.7)		11
RAINBOW TROUT	152 (6.0)		5
RAINBOW TROUT	156 (6.1)		58
RAINBOW TROUT	157 (6.2)		30
RAINBOW TROUT	163 (6.4)		20
RAINBOW TROUT	165 (6.5)		63
RAINBOW TROUT	165 (6.5)		14
RAINBOW TROUT	166 (6.5)		9
RAINBOW TROUT	167 (6.6)		43
RAINBOW TROUT	173 (6.8)		22
RAINBOW TROUT	176 (6.9)		23
RAINBOW TROUT	185 (7.3)		19
RAINBOW TROUT	189 (7.4)		10
RAINBOW TROUT	192 (7.6)		8
RAINBOW TROUT	195 (7.7)		59
RAINBOW TROUT	200 (7.9)		41
RAINBOW TROUT	200 (7.9)		40
RAINBOW TROUT	205 (8.1)		57
RAINBOW TROUT	208 (8.2)		18
BROOK TROUT	115 (4.5)		1

=====  
 ===== Comments =====  
 =====

Survey #: 389007      Site #: 1      10/06/1989

Stream Site Location

1 ST, 65 RT, 172 BT MEASURED PLUS 230 UNMEASURED RT AND BT COLLECTED. 17 DIED REMAINING 450 TROUT TRANSFERRED TO NEWLY FINISHED (1989) PINE HILL LAKE.

\* \* \* \* \*  
 \* BIRCH CREEK 09/09/1988 \*  
 \* Survey # Site # Watershed \*  
 \* 388996 0 LOWER HUDSON \*  
 \* \* \* \* \*

File #  
1593

\*\*\* See Comments \*\*\*

Survey Purpose :// *Delay Report*

Authority : PIERCE

Watershed Index Number Water Class: BT  
H-171-52

=== Site Description ===  
BRDG BEL TO BRDG ABV PINE HILL LAKE

=== Map References ===  
 County : ULSTER  
 Township : SHANDAKEN  
 Quadrangle : WEST KILL (19 )

Altitude (ft)	NYTME	NYTMN	RMI	RMI Up	Stream Length (mi)
1410	05436	46637	1.9	2.3	6.5

=====  
Comments  
=====

Survey #: 388996 Site #: 0 09/09/1988

Stream Site Location

AN 8 FT DIVERSION DAM USED TO CREATE NEW PINE HILL LAKE BLOCKS  
 FISH PASSAGE, AS DOES A BOX CULVERT .5 MI UPSTREAM  
 PROPOSED FOR UPGRADING TO B(TS) IN SEPTEMBER 1986  
 THE INSTALLATION OF POOL DIGGERS IN THE RELOCATED SECTION  
 SHOULD BE CONSIDERED. FLOWS WERE ABOUT NORMAL FOR SEPTEMBER,  
 HOWEVER, VERY DRY CONDITIONS HAD PREVAILED FROM EARLY JUNE TO  
 MID JULY. CONSIDERING THIS THE LARGE NUMBER OF TROUT COLLECTED  
 WAS ALL THE MORE IMPRESSIVE

```

* * * * *
*           BIRCH CREEK           09/09/1988           *           File #
*           Survey #           Site #           Watershed           *           1593
*           388996           1           LOWER HUDSON           *
* * * * *

```

Survey Purpose : Authority : PIERCE

Watershed Index Number Water Class: BT  
H-171-52

=== Site Description ===  
IN BYPASS CHANNEL AROUND PINE HILL LAKE

=== Map References ===  
County : ULSTER  
Township : SHANDAKEN  
Quadrangle : WEST KILL (19 )

Altitude (ft)	NYTME	NYTMN	RMI	RMI Up	Stream Length (mi)
1410	05435	46639	2.0		6.5

==== Stream Biological & Physical Data ~~====~~

Survey #: 388996 Site #: 1 09/09/1988  
Time: 1300 Air Temp: 77 Water Temp: 61 Weather: CLEAR  
\*\*\* See Comments \*\*\*

=== Section Desc. ===	=== Flow ===
Section Length (ft): 300	Max Depth (ft): 1.2
Stream Width (ft): 15	Mean Depth (ft): .3
Channel Width (ft): 20	Conductivity: 110
Gradient (ft/40 ft drop):	Velocity (fps):
Pool Length (ft):	Discharge (cfs): 5.6

=== Methods ===

Discharge: FLOAT USED TO EST. VEL., X-SECTIONAL AREA MEASURED FOR DISCHARGE.

=== Bottom Type and Abundance ===

BEDROCK  
BOULDER  
GRAVEL

=== Shelter Grade and Description ===

0 - 20%

=== Cover Grade and Description ===

0 - 25%

=== CROTS Factors ===

10 or more Insect Species: PRESENT

Insect Forage abundance: HIGH

=====  
===== Water Chemistry Data =====

Survey #: 388996 Site #: 1 09/09/1988  
Time Start: 1300 Time Stop Air Temp: 77 Weather: CLEAR

Surface: Color: CLEAR, COLORLESS Turbidity: NONE  
Bottom Depth (ft): 1.2 Secchi Depth (ft):

Depth (ft)	Water Temp	Dissolved Oxygen	pH	Total Alkalinity	Conductivity	Pt-Co Color
.0	61	10.0	7.20	27.20	110	

=====  
===== Gear Performance & Description =====

Survey #: 388996 Site #: 1 09/09/1988  
Gear Type: ELECTROSHOCKER: AC GENERATOR, STREAM BRAIL  
\*\* See Comments \*\*

Weather: CLEAR

== Time, Chemical and Physical Info ==

Time Start: 1300 Air Temp(F): 77  
Time Stop: Water Temp(F): 61  
On-Time: hrs Conductivity: 110

== Gear Settings, Readings and Configurations ==

AC/DC: AC Pulse Rate:  
Amperage: Voltage: 230

== Efficiencies ==

Fingerling: 51%

== Bottom Type and Abundance ==

BEDROCK:  
BOULDER:  
GRAVEL:

==== Gear Details =====

Electroshocker Model: STREAM SHOCKER  
Brail Length: 30 ft.

230 VAC WITH 30 FT BRAIL

=====  
 ===== Summary Statistics for Individual Fish Records =====

Survey #: 388996      Site #: 1      09/09/1988

Species	Number Caught	Min mm (in)	Max mm (in)	Mean mm (in)	SD mm (in)
---------	---------------	----------------	----------------	-----------------	---------------

-----  
 Gear Type: ELECTROSHOCKER: AC GENERATOR, STREAM BRAIL  
 Effort: Effort was not recorded.

LONGNOSE DACE	3	109 (4.3)	140 (5.5)	124 (4.9)	15.6 (0.6)
RAINBOW TROUT	2	147 (5.8)	157 (6.2)	152 (6.0)	7.1 (0.3)
BROWN TROUT	1	193 (7.6)			
BLACKNOSE DACE	2	66 (2.6)	86 (3.4)	76 (3.0)	14.1 (0.6)

=====  
 ===== Individual Fish Records =====  
 =====

Survey #: 388996      Site #: 1      09/08/1988

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage Sex Age Pan#	Fish#
-----				
Net/Run 1				
BLACKNOSE DACE	66 (2.6)			2
BLACKNOSE DACE	86 (3.4)			3
LONGNOSE DACE	140 (5.5)			1
Net/Run 2				
LONGNOSE DACE	122 (4.8)			4
RAINBOW TROUT	147 (5.8)			2
RAINBOW TROUT	157 (6.2)			3
BROWN TROUT	193 (7.6)			1
Net/Run 3				
LONGNOSE DACE	109 (4.3)			1

=====  
 Survey #: 388996 Site #: 1 09/09/1988

Name	Number Caught	Min Length mm (in)	Max Length mm (in)	Total Weight	Stage	Com	Run#
Validity: FISH CAUGHT, MEASURED AND COUNTED							
SCULPINS	18	38 (1.5)	117 (4.6)			Y	1
RAINBOW TROUT	4	150 (5.9)	170 (6.7)		OL		1
RAINBOW TROUT	111	48 (1.9)	84 (3.3)		YY		1
BROWN TROUT	4	221 (8.7)	234 (9.2)		OL		1
BROWN TROUT	244	56 (2.2)	114 (4.5)		YY		1
SCULPINS	6	38 (1.5)	124 (4.9)			Y	2
RAINBOW TROUT	57	48 (1.9)	81 (3.2)		YY		2
BROWN TROUT	108	64 (2.5)	112 (4.4)		YY		2
SCULPINS	7	41 (1.6)	102 (4.0)			Y	3
RAINBOW TROUT	35	48 (1.9)	86 (3.4)		YY		3
BROWN TROUT	54	56 (2.2)	104 (4.1)		YY		3

=====  
 Survey #: 388996 Site #: 1 09/09/1988

Bulk Catch

COTTUS NOT KEYED TO SPECIES.

Gear, Electrofishing

BLOCKING SEINES USED AT UPPER & LOWER ENDS OF THE SECTION.

\* \* \* \* \*  
\* BIRCH CREEK 09/09/1988 \*  
\* Survey # Site # Watershed \*  
\* 388996 2 LOWER HUDSON \*  
\* \* \* \* \*

File #  
1593

Survey Purpose :

Authority : PIERCE

Watershed Index Number Water Class: BT  
H-171-52

=== Site Description ===

100 FT ABV PINE HILL LAKE DIVERSION

=== Map References ===

County : ULSTER  
Township : SHANDAKEN  
Quadrangle : WEST KILL (19 )

Altitude (ft)	NYTME	NYTMN	RMI	RMI Up	Stream Length (mi)
1425	05433	46639	2.1		6.5

==== Stream Biological & Physical Data =====

Survey #: 388996 Site #: 2 09/09/1988  
Time: 1315 Air Temp: 79 Water Temp: 59 Weather: CLEAR

=== Section Desc. ===

Section Length (ft): 300  
Stream Width (ft): 17  
Channel Width (ft): 22  
Gradient (ft/40 ft drop):  
Pool Length (ft):

=== Flow ===

Max Depth (ft): 2.4  
Mean Depth (ft): .6  
Conductivity: 100  
Velocity (fps):  
Discharge (cfs): 5.3

=== Methods ===

Discharge: FLOAT USED TO EST. VEL., X-SECTIONAL AREA MEASURED FOR DISCHARGE.

=== Bottom Type and Abundance ===

BEDROCK  
BOULDER  
GRAVEL

=== Shelter Grade and Description ===

> 40% BOULDERS UDERCUT BANKS & ROOTS

=== Cover Grade and Description ===

> 50%



=== CROTS Factors ===

Insect Forage abundance: HIGH

==== Water Chemistry Data =====

Survey #: 388996 Site #: 2 09/09/1988  
Time Start: 1315 Time Stop Air Temp: 79 Weather: CLEAR

Surface: Color: CLEAR, COLORLESS Turbidity: NONE  
Bottom Depth (ft): 2.4 Secchi Depth (ft):

Depth (ft)	Water Temp	Dissolved Oxygen	pH	Total Alkalinity	Conductivity	Pt-Co Color
.0	59	10.0	7.10	27.20	100	

\* ===== Gear Performance & Description =====

Survey #: 388996 Site #: 2 09/09/1988  
Gear Type: ELECTROSHOCKER: AC GENERATOR, STREAM BRAIL  
Weather: CLEAR

== Time, Chemical and Physical Info ==

Time Start: 1315 Air Temp(F): 79  
Time Stop: Water Temp(F): 59  
On-Time: hrs Conductivity: 100

== Gear Settings, Readings and Configurations ==

AC/DC: AC Pulse Rate:  
Amperage: Voltage: 230

== Bottom Type and Abundance ==

BEDROCK:  
GRAVEL:  
BOULDER:

==== Gear Details =====

Electroshocker Model: STREAM SHOCKER  
Brail Length: 30 ft.

230 VAC WITH 30 FT BRAIL

=====  
Summary Statistics for Individual Fish Records  
=====

Survey #: 388996      Site #: 2      09/09/1988

Species	Number Caught	Min mm (in)	Max mm (in)	Mean mm (in)	SD mm (in)
---------	---------------	----------------	----------------	-----------------	---------------

-----  
Gear Type: ELECTROSHOCKER: AC GENERATOR, STREAM BRAIL  
Effort: Effort was not recorded.

RAINBOW TROUT	2	127 (5.0)	183 (7.2)	155 (6.1)	39.6 (1.6)
BROWN TROUT	2	257 (10.1)	439 (17.3)	348 (13.7)	128.7 (5.1)

=====  
 ===== Individual Fish Records =====  
 =====

Survey #: 388996      Site #: 2      09/09/1988

Common Name	Length mm (in)	Weight gm (lb)	W/S Stage Sex Age Pan#	Fish#
Net/Run 1				
BROWN TROUT	439 (17.3)		OL	1
Net/Run 2				
BROWN TROUT	257 (10.1)		OL	2
Net/Run 3				
RAINBOW TROUT	127 (5.0)		OL	3
RAINBOW TROUT	183 (7.2)		OL	4

=====  
Bulk Catch Data  
=====

Survey #: 388996      Site #: 2      09/09/1988

Name	Number Caught	Min Length mm (in)	Max Length mm (in)	Total Weight	Stage Com	Run#
------	---------------	--------------------	--------------------	--------------	-----------	------

-----  
Validity: FISH CAUGHT, MEASURED AND COUNTED

BROWN TROUT	3	272 (10.7)	284 (11.2)		OL	1
RAINBOW TROUT	37	119 (4.7)	191 (7.5)		OL	1
RAINBOW TROUT	14	61 (2.4)	81 (3.2)		YY	1
BROWN TROUT	33	178 (7.0)	244 (9.6)		OL	1
BROWN TROUT	101	53 (2.1)	97 (3.8)		YY	1
RAINBOW TROUT	6	122 (4.8)	188 (7.4)		OL	2
RAINBOW TROUT	9	64 (2.5)	76 (3.0)		YY	2
BROWN TROUT	5	160 (6.3)	224 (8.8)		OL	2
BROWN TROUT	30	66 (2.6)	91 (3.6)		YY	2
RAINBOW TROUT	7	61 (2.4)	71 (2.8)		YY	3
BROWN TROUT	3	147 (5.8)	193 (7.6)		OL	3
BROWN TROUT	19	71 (2.8)	97 (3.8)		YY	3

CV

**SURVEY COVER SHEET**  
NYS Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

300023

SURVEY PURPOSE

14

WSHED

LH

P/S

S

AUTHORITY

FLAHERTY

NAME OF WATER

LOST CLOVE BROOK

No. of Pages (including cover sheet)

Rev. 9/00

WATERSHED INDEX NUMBER or POND NUMBER

H-171-53

GENERAL SURVEY COMMENTS: (attach another sheet if additional space is needed)

This survey was conducted to document if trout fingerlings currently inhabit this stream. Trout fingerlings were found at both sites sampled. This stream should be proposed for upgrading from its current (T) standard to (TS). Protection should be given to this stream to ensure that trout and trout spawning habitat is not degraded.

SL

# STREAM SITE LOCATION RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

300023

FILE NUMBER

1568S.1

MAP

Y

AUTHORITY

FLAHERTY

SURVEY PURPOSE

14

NAME OF WATER

LOST CLOVE BROOK

Sheet      of      Revision Date: 4/95 Coded     

P/S WSHED

SLH

WATERSHED INDEX NUMBER

H-171-53

(from Biological Survey overlay)

SITE #

1

DATE (MM/DD/YY)

92600

TOWN/CITY (Prefix city names with an "\*")

SHANDAKEN

WATER CLASS

BCTT

QUADRANGLE

SHANDAKEN

EDITION

60

QUAD TYPE

USGS

SITE DESCRIPTION

0.1 MI BELOW T1 AND DOWNSTREAM APPROX 75'

ALTITUDE

1440

RMI

0.9

RMI UP

.

NYTME

0

NYTMN

SITE #

2

DATE (MM/DD/YY)

92600

TOWN/CITY (Prefix city names with an "\*")

SHANDAKEN

WATER CLASS

BCTT

QUADRANGLE

SHANDAKEN

EDITION

60

QUAD TYPE

USGS

SITE DESCRIPTION

200' UP FROM MOUTH AND UP APPROX. 100 FT

ALTITUDE

1240

RMI

0.0

RMI UP

.

NYTME

0

NYTMN

SITE #

DATE (MM/DD/YY)

TOWN/CITY (Prefix city names with an "\*")

WATER CLASS

QUADRANGLE

EDITION

QUAD TYPE

SITE DESCRIPTION

ALTITUDE

RMI

.

RMI UP

.

NYTME

0

NYTMN

**STREAM SITE LOCATION RECORD**  
Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **FILE NUMBER** - Enter the applicable file number for this water or water segment from the watershed files.
3. **MAP** - Record a "Y" in this field if a detailed map associated to the survey is going to be kept on file in the region.
4. **AUTHORITY** - Record the last name only of the biologist or technician that is in charge of the survey.
5. **SURVEY PURPOSE** - Enter the appropriate code from the list below.
6. **NAME** - Enter the name of the water. Spell out the name in full, including terms such as lake, river, creek, etc. Do not use abbreviations unless absolutely necessary.  
Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
7. **P/S (Pond/Stream)** - Enter a "S" for all stream surveys. If a person wishes to record pond data using this form then "P" must be entered in this space.
8. **WSHED** - Enter the appropriate watershed code from the list below.
9. **WIN (Watershed Index Number)** - For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
10. **SITE NUMBER** - Site numbers are assigned consecutively by the survey party to indicate the location of a sampling effort. Do not record a leading zero with a site number (1, not 01).
11. **DATE** - Enter the month, day and year (MM/DD/YY) data on this form was collected. (Use a leading 0 for days and months less than 10.)
12. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a SL record for this survey, date, and site has been recorded. General survey comments are related to a SL record site 0, where the SITE DESCRIPTION is ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
13. **TOWN/CITY** - Enter the town or city in which the survey site was located. Spell out the name in full. Prefix city names with an "x". If the site crosses a town or city boundary, record the town or city name of the downstream most point of the survey section.
14. **COUNTY** - Enter the first four letters of the county in which the site is located. If a stream study section crosses more than one county, record the county of the downstream most point of the survey section.
15. **WATER CLASS** - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
16. **QUADRANGLE** - Enter the map quadrangle name on which the survey site is located. If a stream study site crosses more than one quad, record the quadrangle name of the downstream most point of the survey section.
17. **EDITION** - Record the last two digits of the year the map was printed.
18. **QUAD TYPE** - Enter the appropriate code from the list below.
19. **SITE DESCRIPTION** - Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
20. **ALTITUDE** - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
21. **RMI (River Mile Index)** - *Streams only*. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
22. **RMI UP** - *Streams only*. If a stream study site is greater than 0.1 miles in length, enter the distance in miles of the upstream most point of the stream study site from the mouth of the stream.
23. **NYTME, NYTMN** - Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

**SURVEY PURPOSE CODES**

Brood stock monitoring	- 1	Rare/endangered species	- 13
Centrarchid sampling plan	- 2	Reclassification	- 14
CROTS survey	- 3	Special regs evaluation	- 15
Egg take	- 4	Stream protection (Art 15)	- 16
Esocid sampling plan	- 5	Trap and transfer	- 17
Fish kill investigation	- 6	TSMIP collection	- 18
Fish salvage operation	- 7	Post-reclamation survey	- 19
General biological survey	- 8	Pre-liming survey	- 20
Percid sampling plan	- 9	Post-liming survey	- 21
Pre-reclamation survey	- 10	Radiation sampling	- 22
Population estimate:		Monitoring of tournaments	- 23
Delury	- 11	Evaluate exp. stocking water	- 24
Petersen	- 12	Whirling disease sampling	- 25
		Other, explain in <b>COMMENTS</b>	- 99

**WATERSHED CODES**

Allegheny	- A	Mohawk	- M
Black	- B	Ontario	- O
Champlain	- C	Oswego	- OS
Chemung	- CM	Oswegatchie	- OW
Delaware	- D	Raquette	- R
Erie-Niagara	- EN	Susquehanna	- S
Genesee	- G	St. Lawrence	- SL
Lower Hudson	- LH	St. Lawrence, Can	- SC
Long Island	- LI	Upper Hudson	- UH

**QUAD TYPE CODES**

NY Dept of Transportation 7.5'	- M
topographic or planimetric mapsheet.	- NYDT
US Geological Survey 7.5'	- OS
topographic mapsheet.	- USGS
US Geological Survey 15'	- R
topographic mapsheet.	- US15
US Geological survey 7.5' X 15'	- SL
topographic mapsheet.	- 7X15
NY Bureau of Fisheries 7.5' mylar overlays.	- NYBF

**NOTES:**

# GE

## GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH

POND NUMBER

NAME OF WATER LOST CLOVE BROOK

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-53

Sheet 1 of 3 Revision Date: 4/95 Coded 300023

SURVEY NUMBER 300023 DATE (MM/DD/YY) 9/26/00

SITE # 1 NET/RUN #     GEAR CODE 57 INVENTORY NUMBER    

TIME START 1410 TIME STOP     ON-TIME     WATER 51

SECCHI DEPTH     BOTTOM     AC/DC DC WAVEFORM     PULSE RATE     AMPERAGE     VOLTAGE 52 UNITS F

FLOW TARGET A FINGERLING EFFICIENCY     YEARLING EFFICIENCY     OLDER TROUT EFFICIENCY     SCAPPERS 1 ZERO CATCH     DAMAGE/BIAS    

BOTTOM COMPOSITION AND ABUNDANCE

BOTTOM 1 ABD 1     ABD 2     ABD 3    

TEMPERATURE: AIR     RAIN 48     WEATHER RAIN SHORELINE SHOCKED 75 COMMENTS    

CONDUCTIVITY     BRAIL LENGTH     DC WANDS    

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

SUBMERGED     EMERGENT     FLOATING    

SITE # 2 NET/RUN #     GEAR CODE 57 INVENTORY NUMBER    

TIME START 1500 TIME STOP 1520 ON-TIME     WATER    

SECCHI DEPTH     BOTTOM     AC/DC DC WAVEFORM     PULSE RATE     AMPERAGE     VOLTAGE     UNITS 2

FLOW TARGET T FINGERLING EFFICIENCY     YEARLING EFFICIENCY     OLDER TROUT EFFICIENCY     SCAPPERS 1 ZERO CATCH     DAMAGE/BIAS    

BOTTOM COMPOSITION AND ABUNDANCE

BOTTOM 1 ABD 1     ABD 2     ABD 3    

TEMPERATURE: AIR     RAIN 48     WEATHER CLDY SHORELINE SHOCKED 100 COMMENTS    

CONDUCTIVITY     BRAIL LENGTH     DC WANDS    

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

SUBMERGED     EMERGENT     FLOATING



**ELECTROFISHING GEAR RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. **GEAR CODE** - Enter the appropriate code from the list below.
6. **INVENTORY NUMBER** - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
7. **WEATHER** - Enter the appropriate code from the list below.
8. **RAIN 48** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. **LENGTH OF SHORELINE SHOCKED** - Enter the length of shoreline that was fished per run to the nearest yard.
10. **COMMENTS** - Record a "Y" if a comment record, (Rectype CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. **TIME START** - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
12. **TIME STOP** - Record the time that the electrofishing run ended. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
13. **ON-TIME** - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated, as for backpack shockers.
14. **WATER TEMPERATURE** - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. **AIR TEMPERATURE** - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. **CONDUCTIVITY METHOD** - Record the conductivity of the water to the nearest  $\mu\text{mho/cm}^2$ .
18. **CONDUCTIVITY** - Record the conductivity of the water to the nearest  $\mu\text{mho/cm}^2$ .
19. **SECCHI DEPTH** - Record the secchi depth, or the bottom depth, if the secchi depth and the bottom depth would be equal, to the nearest tenth of a foot.
20. **BOTTOM** - Enter "Y" if the secchi depth equals the bottom depth.
21. **AC/DC** - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. **WAVEFORM** - Enter the appropriate code from the list below.
23. **PULSE RATE** - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. **AMPERAGE** - Record the amperage applied to the water, this must come from a meter on the equipment. If <1 amp, record a decimal followed by the number of millamps.
25. **VOLTAGE** - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. **UNITS** - Enter the number of electroshocking units used in conjunction with each other for this collection effort.
27. **BRAIL LENGTH** - Record the length of the brail to the nearest whole foot.
28. **DC WANDS** - Record the number of DC wands used with an electroshocking system.
29. **FLOW** - Enter the appropriate code from the list below.
30. **TARGET** - Enter the appropriate code from the list below.
31. **FINGERLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. **YEARLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. **OLDER TROUT EFFICIENCY** - Enter the estimate of electrofishing efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. **SCAPPERS** - Record the number of scappers.
35. **ZERO CATCH** - Record "Y" if no fish are captured during the electrofishing effort.
36. **BIAS** - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO).
37. **BOTTOM 1, 2, 3** - Enter the appropriate code from the list below.
38. **ABUNDANCE (ABD) 1, 2, 3** - Enter the appropriate code.
39. **SUBMERGED, EMERGENT, FLOATING** - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**

- CLR - Clear
- CLDY - Cloudy
- HAZY - Hazy
- PCDY - Partly cloudy
- RAIN - Raining
- SNOW - Snowing

**ELECTROFISHING GEAR CODES**

- 57 - Backpack shocker; DC
- 58 - Backpack shocker; Coffelt, AC
- 61 - Electric shocker; Boat, AC
- 62 - Electric shocker; Boat, DC
- 63 - Electric shocker; AC generator
- 64 - Electric shocker; DC generator

**TARGET CODES**

- A - All fish
- B - Bass species
- E - Esocids
- G - Gamefish only
- P - Percids
- T - Trout, all
- F - Trout, fingerlings
- Y - Trout, yearlings
- Other, see Comments - 9

**BOTTOM TYPE CODES**

- A - Plant
- B - debris
- E - Vegetated
- G - Unknown
- P - Concrete
- T - Bedrock
- F - Clay
- Y - Mud

**CONDUCTIVITY METHOD CODES**

- A - Chemtrix type 700
- B - Presto-tek model DP 03
- C - Poly Pram model DP 30-39
- E - Cole Parmer 1481 - 55
- F - Presto-tek model DSPH - 3
- G - DSPH - 3 Pocket Pal
- H - Whatman CDM510
- I - Cole Parmer 1481 - 62
- J - Hanna HI 6033
- K - Cole Parmer 1500 - 20
- M - Cole Parmer TDS pocket meter
- L - Lab analyzed, identify in comments
- R - ALS/C lab in Rey Brook
- Z - See comments for make/model of meter
- 9 - See comments for method

**CONDUCTIVITY METHOD CODES**

- A - Gear employed against the current
- B - Gear employed with the current
- E - Gear employed both directions

**FLOW CODES**

- A - Gear employed against the current
- B - Gear employed with the current
- E - Gear employed both directions

**WAVEFORM CODES**

- 1 - 1/2 wave (pulsed DC)
- 2 - 3/4 wave
- 3 - Full wave
- 9 - Other, see Comments

**NOTES:**

- 0 = 1-5%
- 1 = 6-25%
- 2 = 26-50%
- 3 = 51-90%
- 4 = > 90%



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet \_\_\_\_\_ of \_\_\_\_\_

Revision Date: 7/96

Coded

WATERSHED CODE LH POND NUMBER \_\_\_\_\_  
 NAME OF WATER Lost Clove Brook  
 WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-53

SURVEY NUMBER 300023 DATE (MM/DD/YY) 9 26 00 SITE # 1 NET/RUN # \_\_\_\_\_

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	COM
	1	329	140			
	2	329	86			
	3	329	93			
	4	329	148			
	5	329	147			
	6	329	160			
	7	329	137			
	8	329	145			
	9	329	77			
	10	329	83			
	11	329	80			
	12	329	153			
	13	329	139			
	14	329	88			
	15	329	107			
	16	326	163			
	17	326	67			
	18	326	58			

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	COM
	19	329	98			

Species Code = Species

ST or 329 = Brook trout

RT or 326 = Rainbow trout



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH POND NUMBER \_\_\_\_\_  
 NAME OF WATER Lost Clove Brook  
 WATERSHED INDEX NUMBER (STREAMS ONLY) H171-53

SURVEY NUMBER 300023 DATE (MM/DD/YY) 9 26 00 SITE # 2 NET/RUN # \_\_\_\_\_

Sheet \_\_\_\_\_ of \_\_\_\_\_ Revision Date: 7/96 Coded \_\_\_\_\_

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	19	326	81			
	20	329	98			
	21	326	79			
	22	326	77			
	23	328	74			
	24	326	71			
	25	329	97			
	26	326	70			
	27	328	174			
	28	329	207			

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	1	326	80			
	2	326	100			
	3	326	80			
	4	329	95			
	5	326	78			
	6	329	100			
	7	326	104			
	8	329	106			
	9	329	94			
	10	326	83			
	11	328	105			
	12	329	89			
	13	326	64			
	14	326	60			
	15	326	85			
	16	326	95			
	17	329	109			
	18	326	95			

<u>Species Code</u>	=	<u>Species</u>
ST = 329	=	Brook trout
BT = 328	=	Brown trout
RT = 326	=	Rainbow trout



**BULK CATCH DESCRIPTIVE DATA RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - The number that corresponds to the electrofishing run, trawl run or seine haul during which the fish described was caught.
5. **PANEL NUMBER** - Enter the panel number in which the fish was caught. Panel numbers are assigned to specific mesh sizes in the Gear Description (GD) record. If gear codes 1, 18, or 19 are used instead of an inventory number, then panel numbers are assigned consecutively beginning with 1, from smallest to largest mesh.
6. **SPECIES CODE** - Enter the appropriate code. For species not listed, refer to: A Comprehensive Fish Species Code List for Inland and Marine Fishes of New York State by Kretser, Dudones, and Bonham, NYSDEC Publication, October 1980. Commonly accepted abbreviations such as LMB, ST, BT, etc. may also be entered instead of numerical codes.
7. **NUMBER CAUGHT (OR OBSERVED)** - Enter the number of fish in the catch, either actual or estimated.
8. **MINIMUM LENGTH** - Enter the total length of the smallest fish in the collection, in millimeters.
9. **MAXIMUM LENGTH** - Enter the total length of the largest fish in the collection, in millimeters.
10. **VALIDITY** - Enter the appropriate code that best describes the accuracy of the data recorded in the **NUMBER CAUGHT**, **MINIMUM LENGTH**, and **MAXIMUM LENGTH** fields. Always complete this field for every species recorded!
11. **STAGE** - Enter the appropriate code from the list below.
12. **SEX** - Enter "M" for male and "F" for female. Leave blank if unknown or undetermined.
13. **TOTAL WEIGHT** - Enter the combined weight for all of the fish captured, when weighed as one single sample. Record weights in grams.
14. **SUB-SAMPLE WEIGHT** - If the catch is divided into sub-samples, record the weight of each sub-sample, in grams. This line of data MUST refer to the sub-sample only.
15. **NUMBER IN SUB-SAMPLE** - If the catch is divided into sub-samples, record the number of fish in the sub-sample. This line of data MUST refer to the sub-sample only.
16. **COMMENTS** - Enter "Y" if a comment record (Rectype CO) relating to a BF record for this survey, date, site, net/run, and species has been completed.

**SOME COMMON SPECIES CODES & SPEED CODES**

Alewife	- 289; AL	Largemouth bass	- 601; LMB
American eel	- 276; AME	Mottled sculpin	- 865; MS
Atlantic salmon	- 327; LLS	Muskellunge	- 348; MSK
Banded killifish	- 531; KF	Northern pike	- 347; NP
Black crapple	- 603; COB	Pumpkinseed	- 596; PS
Blacknose dace	- 402; BND	Rainbow smelt	- 335; RSM
Blueback herring	- 286; BLU	Rainbow trout	- 328; RT
Bluegill	- 598; BGS	Redbreast sunfish	
Brook trout	- 329; ST	X Pumpkinseed	- 589
Brown bullhead	- 444; BB	Redfin pickerel	- 345
Brown trout	- 328; BT	Rock bass	- 591; RB
Channel catfish	- 445; CHC	Slimy sculpin	- 886; SS
Chain pickerel	- 349; PKL	Smallmouth bass	- 600; SMB
Chinook salmon	- 322	Splake	- 332
Coho salmon	- 320	Striped bass	- 577
Common carp	- 365	Striped bass	
Common shiner	- 385; CSH	X White bass	- 579
Creek chub	- 406; CC	Tiger musky	- 350
Fallfish	- 407; FF	Tiger trout	- 333
Gizzard shad	- 294; GIZ	Walleye	- 628; PP
Golden shiner	- 377; GS	White perch	- 575; WP
Grass pickerel	- 346	White sucker	- 419; WS
Lake trout	- 330; LT	Yellow perch	- 617; YP

**STAGE CODES**

Adult	- AD
Hard, green	- HD
Immature	- IM
Older	- OL
Ripe, gravid, unspent	- RP
Smolt	- SM
Spent	- SP
Young of the year	- YY

**USING the BF RECORD for WHNF "N" CALCULATIONS**

WHNF "N" calculations call for catches of non-trout species to be broken down into size classes in order to estimate their competitive impact on stocked trout. WHNF "N" determinations are also necessary for CROTS stocking calculations. To use this form for WHNF "N" determinations, record the **VALIDITY CODE** as D, divide the catch by species and into the following size classes:

65	-	125	(	2.5	-	5.0 in)
126	-	250	(	5.1	-	10.0 in)
251	-	380	(	10.1	-	15.0 in)
381	-	500	(	15.1	-	20.0 in)
>		500	(	>		20.0 in)

**VALIDITY CODES**

Fish caught, counted, and measured	- A
Fish caught, counted, smallest and largest measured	- B
Fish caught, counted, measurements estimated	- C
Fish caught, counted, measurements reflect length frequency classes	- D (Use with CROTS surveys only)
Fish caught, numbers estimated, smallest and largest measured	- E
Fish caught, numbers estimated, measurements estimated	- F
Fish observed, numbers estimated, measurements estimated	- G
Bulk weight of individual fish recorded on the IF forms	- H
Other, explain in comment records	- I

NOTES:

GEOLOGICAL SURVEY

MARGARETVILLE 11 MI.  
FLEISCHMANN'S 4 MI.

74° 30'  
7' 30"

542000m E

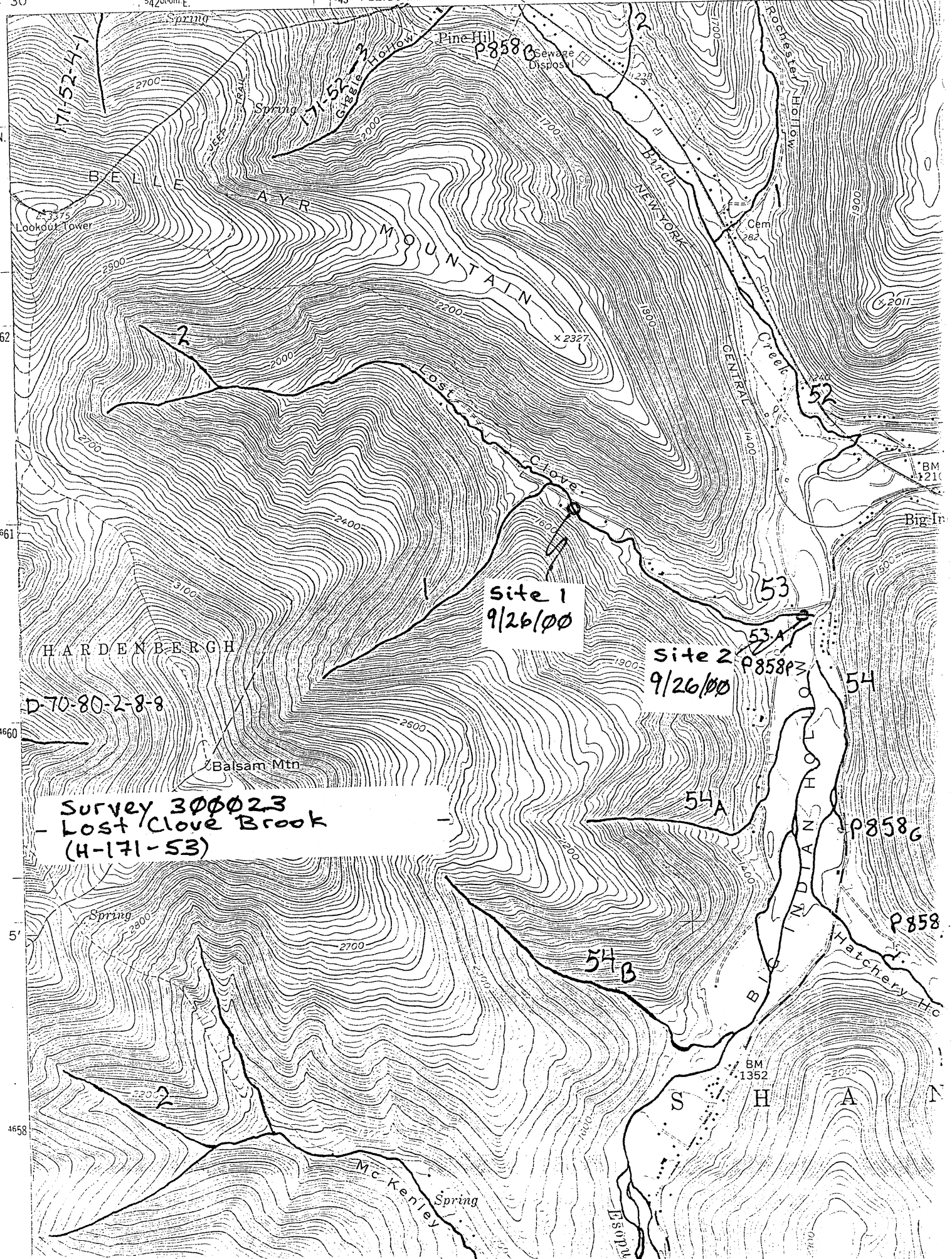
543

544

27' 30" 545

546

SHANDAKEN QUAD



D-70-80-2-8-8

Survey 300023  
- Lost Clove Brook  
(H-171-53)

site 1  
9/26/00

site 2  
9/26/00

54B

54A

53

54

P858G

P858

BM  
1352

BM  
1210

Big Tr

Lookout Tower

Sewage Disposal

Cem  
262

2011

2

52

63000m N

4662

4661

4660

5

4658

BELLE AYER

MOUNTAIN

HARDENBERGH

Balsam Mtn

NEW YORK

ROCHESTER HOLLOW

INDIAN HOLLOW

SHANDAKEN

Mc Kenley

Esplanade

Hatchery Ho

Lost Clove Brook

Clove

Central

71-52-4-1

71-52-4-2

71-52-4-3

71-52-4-4

71-52-4-5

71-52-4-6

71-52-4-7



# Survey from Sept. 3, 1936

(S.T., 600 in 1928, 3590 in 1933) \*\*\*Stocked with B.T. (1934-800; 1935-300)

Tributary number	Length	Width and depth	Flow	Pools	Food	Air	Water	Time and weather	Bottom	Cover	Stocking policy
41a	0.4mi. above mouth		15gpm	trickle		63°	50°	9:15 fair	r,bo, sd ex.		100 B.T.
		Posted below road by NYC Water Dept. (fishing allowed)								minnows in pools below highway. Small spring enters just below highway-50°.	
42	(Little Beaver Kill)	S									✓
43	(Beaver Kill)	S									✓
44	Jim Van Bk	0.2mi.	B.T. fing.	700(1926)	700(1927)	S.T. fing.	600(1930)				Not seen
44a-be	low	0.5mi. above P855a	3 1/2 x 1 1/2" - 3" 60gpm	III	C-	68°	64°	9:50A-clr.	r, clay, detritus	good	180 B.T.
P855a-44a			1' 3 1/2" x 1/2" - 1 1/2"	45-50gpm	III-C-	67°	50°	6/29/36	Pond unit bushes	fair	✓
								10:10a-clr	s, muck, detritus bushes		
45	(Stony Clove Bk.)	S									✓
46	(Woodland Cr.)	S									✓
47	(Forest Valley Bk.)	S									✓
48	(Peck Hollow Bk.)	S									✓
49	(Fox Hollow Bk.)	S									✓
50	(Bushnellsville Cr.)	S									✓
51	1/2mth. Seneca Hollow	0.4mi. 1' 3" x 2" 1"	30gpm	B/II-		62°	53°	3:15 clo.	Bo & r	good precipit	us
51a*	0.3mi.	Posted to fishing by RipVanWinkle Club									Posted, 200 B.T.
52	(Birch Cr.)	S									✓
53	0.1mi. above Lost Clove Bk	1.5mi. 3' 6" x 2" 6"	1/3 cfs	C/II		65	57	2:00 clr.	B.R.	Fair	180 B.T.
			1/2 cfs			67	60	10:05 hazy	9/3/36	intermittent.	
			Mostly in gravel in places so is almost								
51amth.		1' 2" x 1 1/4"	50gpm	B-III		62	53	3:00 clo	R	good	200 B.T.
7	Previous stocking										B.T.
											12' falls 100' from mouth - Trout seen.
											(1927, 700 B.T., 1930, 500 B.T., 1933, 300 B.T., 1934, 1600 B.T., 1935, 600 B.T.)

CV

**SURVEY COVER SHEET**  
NYS Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

300027

SURVEY PURPOSE

14

WSHED

LH

P/S

S

AUTHORITY

FLAHERTY

NAME OF WATER

GIGGLE HOLLOW

No. of Pages (including cover sheet)

Rev. 9/00

WATERSHED INDEX NUMBER or POND NUMBER

H-171-52-3

GENERAL SURVEY COMMENTS: (attach another sheet if additional space is needed)

This survey was conducted to document if trout fingerlings currently inhabit this stream. Trout fingerlings were found at the site sampled. This stream should be proposed for upgrading from its current (T) standard to (TS). Protection should be given to this stream to ensure that trout and trout spawning habitat is not degraded.

SL

# STREAM SITE LOCATION RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

MAP  Y

FILE NUMBER  
1593

SURVEY PURPOSE  
14

SURVEY NUMBER  
300027

AUTHORITY  
FLAHERTY

NAME OF WATER  
GIGGLE HOLLOW

Sheet \_\_\_ of \_\_\_ Revision Date: 4/95 Coded

WATERSHED INDEX NUMBER (from Biological Survey overlay)

WSHED  
LH

H-171-52-3

TOWN/CITY (Prefix city names with an "\*\*")

SHANDAKEN

COMMENTS

DATE (MM/DD/YY)  
9 25 00

SITE #  
1

WATER CLASS  
B(T)

COUNTY  
ULST

QUAD TYPE  
USGS

EDITION  
60

NYTME  
0

RMI UP  
0

NYTME  
0

QUADRANGLE  
WEST KILL

SITE DESCRIPTION  
UNDER BRIDGE NEAR MOUTH AND UPSTREAM 75 FT

ALTITUDE  
1420

DATE (MM/DD/YY)

COMMENTS

SITE #

WATER CLASS

COUNTY

QUAD TYPE

EDITION

NYTME

RMI UP

NYTME

QUADRANGLE

SITE DESCRIPTION

ALTITUDE

DATE (MM/DD/YY)

COMMENTS

SITE #

WATER CLASS

COUNTY

QUAD TYPE

EDITION

NYTME

RMI UP

NYTME

QUADRANGLE

SITE DESCRIPTION

ALTITUDE

DATE (MM/DD/YY)

COMMENTS

SITE #

WATER CLASS

COUNTY

QUAD TYPE

EDITION

NYTME

RMI UP

NYTME

QUADRANGLE

SITE DESCRIPTION

ALTITUDE

DATE (MM/DD/YY)

COMMENTS

SITE #

WATER CLASS

COUNTY

QUAD TYPE

EDITION

NYTME

RMI UP

NYTME

QUADRANGLE

SITE DESCRIPTION

ALTITUDE

DATE (MM/DD/YY)

COMMENTS

SITE #

**STREAM SITE LOCATION RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **FILE NUMBER** - Enter the applicable file number for this water or water segment from the watershed files.
3. **MAP** - Record a "Y" in this field if a detailed map associated to the survey is going to be kept on file in the region.
4. **AUTHORITY** - Record the last name only of the biologist or technician that is in charge of the survey.
5. **SURVEY PURPOSE** - Enter the appropriate code from the list below.
6. **NAME** - Enter the name of the water. Spell out the name in full, including terms such as lake, river, creek, etc. Do not use abbreviations unless absolutely necessary.  
Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
7. **P/S (Pond/Stream)** - Enter a "S" for all stream surveys. If a person wishes to record pond data using this form then "P" must be entered in this space.
8. **WSHED** - Enter the appropriate watershed code from the list below.
9. **WIN (Watershed Index Number)** - For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
10. **SITE NUMBER** - Site numbers are assigned consecutively by the survey party to indicate the location of a sampling effort. Do not record a leading zero with a site number (1, not 01).
11. **DATE** - Enter the month, day and year (MM/DD/YY) data on this form was collected. (Use a leading 0 for days and months less than 10.)
12. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a SL record for this survey, date, and site has been recorded. General survey comments are related to a SL record site 0, where the SITE DESCRIPTION is ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
13. **TOWN/CITY** - Enter the town or city in which the survey site was located. Spell out the name in full. Prefix city names with an "\*". If the site crosses a town or city boundary, record the town or city name of the downstream most point of the survey section.
14. **COUNTY** - Enter the first four letters of the county in which the site is located. If a stream study section crosses more than one county, record the county of the downstream most point of the survey section.
15. **WATER CLASS** - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
16. **QUADRANGLE** - Enter the map quadrangle name on which the survey site is located. If a stream study site crosses more than one quad, record the quadrangle name of the downstream most point of the survey section.
17. **EDITION** - Record the last two digits of the year the map was printed.
18. **QUAD TYPE** - Enter the appropriate code from the list below.
19. **SITE DESCRIPTION** - Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
20. **ALTITUDE** - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
21. **RMI (River Mile Index)** - Streams only. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
22. **RMI UP** - Streams only. If a stream study site is greater than 0.1 miles-in length, enter the distance in miles of the upstream most point of the stream study site from the mouth of the stream.
23. **NYTME, NYTMN** - Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

**SURVEY PURPOSE CODES**

- |                           |      |                              |      |
|---------------------------|------|------------------------------|------|
| Brood stock monitoring    | - 1  | Rare/endangered species      | - 13 |
| Centrarchid sampling plan | - 2  | Reclassification             | - 14 |
| CROTS survey              | - 3  | Special regs evaluation      | - 15 |
| Egg take                  | - 4  | Stream protection (Art 15)   | - 16 |
| Esocid sampling plan      | - 5  | Trap and transfer            | - 17 |
| Fish kill investigation   | - 6  | TSMP collection              | - 18 |
| Fish salvage operation    | - 7  | Post-reclamation survey      | - 19 |
| General biological survey | - 8  | Pre-liming survey            | - 20 |
| Percid sampling plan      | - 9  | Post-liming survey           | - 21 |
| Pre-reclamation survey    | - 10 | Radiation sampling           | - 22 |
| Population estimate:      |      | Monitoring of tournaments    | - 23 |
| Delury                    | - 11 | Evaluate exp. stocking water | - 24 |
| Petersen                  | - 12 | Whirling disease sampling    | - 25 |
|                           |      | Other, explain in COMMENTS   | - 99 |

**WATERSHED CODES**

- |              |      |                   |      |
|--------------|------|-------------------|------|
| Allegheny    | - A  | Mohawk            | - M  |
| Black        | - B  | Ontario           | - O  |
| Champlain    | - C  | Oswego            | - OS |
| Chemung      | - CM | Oswegatchie       | - OW |
| Delaware     | - D  | Raquette          | - R  |
| Erie-Niagara | - EN | Susquehanna       | - S  |
| Genesee      | - G  | St. Lawrence      | - SL |
| Lower Hudson | - LH | St. Lawrence, Can | - SC |
| Long Island  | - LI | Upper Hudson      | - UH |

**QUAD TYPE CODES**

- |   |        |
|---|--------|
| NY Dept of Transportation 7.5'              | - NYDT |
| topographic or planimetric mapsheet.        |        |
| US Geological Survey 7.5'                   | - USGS |
| topographic mapsheet.                       |        |
| US Geological Survey 15'                    | - US15 |
| topographic mapsheet.                       |        |
| US Geological Survey 7.5' X 15'             | - 7X15 |
| topographic mapsheet.                       |        |
| NY Bureau of Fisheries 7.5' mylar overlays. | - NYBF |

**NOTES:**



# GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH POND NUMBER \_\_\_\_\_  
 NAME OF WATER GIGGLE HOLLOW  
 WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-3

Sheet \_\_\_\_\_ of \_\_\_\_\_ Revision Date: 4/95 Coded \_\_\_\_\_

SURVEY NUMBER

300027

DATE (MM/DD/YY)

9 25 00

SITE # 1 NET/RUN # \_\_\_\_\_ GEAR CODE 57 INVENTORY NUMBER \_\_\_\_\_

WEATHER \_\_\_\_\_ RAIN 48 \_\_\_\_\_ LENGTH of SHORELINE SHOCKED \_\_\_\_\_ COMMENTS \_\_\_\_\_  
 TEMPERATURE: AIR \_\_\_\_\_ TEMP UNITS F CONDUCTIVITY \_\_\_\_\_ METHOD \_\_\_\_\_  
 AMPERAGE \_\_\_\_\_ VOLTAGE 425 UNITS \_\_\_\_\_ BRAIL LENGTH \_\_\_\_\_ DC WANDS \_\_\_\_\_

TIME START \_\_\_\_\_ TIME STOP 1535 ON-TIME \_\_\_\_\_ WATER 48  
 SECCHI DEPTH \_\_\_\_\_ BOTTOM \_\_\_\_\_ AC/DC DC WAVEFORM \_\_\_\_\_ PULSE RATE \_\_\_\_\_  
 FLOW A FINGERLING EFFICIENCY \_\_\_\_\_ YEARLING EFFICIENCY \_\_\_\_\_ OLDER TROUT EFFICIENCY \_\_\_\_\_ SCAPPERS 1 ZERO CATCH \_\_\_\_\_ DAMAGE/BIAS \_\_\_\_\_

BOTTOM COMPOSITION AND ABUNDANCE  
 BOTTOM 1 ABD 1 \_\_\_\_\_ BOTTOM 2 ABD 2 \_\_\_\_\_ BOTTOM 3 ABD 3 \_\_\_\_\_  
 VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY  
 SUBMERGED \_\_\_\_\_ EMERGENT \_\_\_\_\_ FLOATING \_\_\_\_\_

SITE # \_\_\_\_\_ NET/RUN # \_\_\_\_\_ GEAR CODE \_\_\_\_\_ INVENTORY NUMBER \_\_\_\_\_

WEATHER \_\_\_\_\_ RAIN 48 \_\_\_\_\_ LENGTH of SHORELINE SHOCKED \_\_\_\_\_ COMMENTS \_\_\_\_\_  
 TEMPERATURE: AIR \_\_\_\_\_ TEMP UNITS \_\_\_\_\_ CONDUCTIVITY \_\_\_\_\_ METHOD \_\_\_\_\_  
 AMPERAGE \_\_\_\_\_ VOLTAGE \_\_\_\_\_ UNITS \_\_\_\_\_ BRAIL LENGTH \_\_\_\_\_ DC WANDS \_\_\_\_\_

TIME START \_\_\_\_\_ TIME STOP \_\_\_\_\_ ON-TIME \_\_\_\_\_ WATER \_\_\_\_\_  
 SECCHI DEPTH \_\_\_\_\_ BOTTOM \_\_\_\_\_ AC/DC \_\_\_\_\_ WAVEFORM \_\_\_\_\_ PULSE RATE \_\_\_\_\_  
 FLOW \_\_\_\_\_ FINGERLING EFFICIENCY \_\_\_\_\_ YEARLING EFFICIENCY \_\_\_\_\_ OLDER TROUT EFFICIENCY \_\_\_\_\_ SCAPPERS \_\_\_\_\_ ZERO CATCH \_\_\_\_\_ DAMAGE/BIAS \_\_\_\_\_

BOTTOM COMPOSITION AND ABUNDANCE  
 BOTTOM 1 ABD 1 \_\_\_\_\_ BOTTOM 2 ABD 2 \_\_\_\_\_ BOTTOM 3 ABD 3 \_\_\_\_\_  
 VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY  
 SUBMERGED \_\_\_\_\_ EMERGENT \_\_\_\_\_ FLOATING \_\_\_\_\_

**ELECTROFISHING GEAR RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. **GEAR CODE** - Enter the appropriate code from the list below.
6. **INVENTORY NUMBER** - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Recipe GD).
7. **WEATHER** - Enter the appropriate code from the list below.
8. **RAIN 48** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. **LENGTH OF SHORELINE SHOCKED** - Enter the length of shoreline that was fished per run to the nearest yard.
10. **COMMENTS** - Record a "Y" if a comment record, (Recipe CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. **TIME START** - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
12. **TIME STOP** - Record the time that the electrofishing run ended. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
13. **ON-TIME** - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated, as for backpack shockers.
14. **WATER TEMPERATURE** - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. **AIR TEMPERATURE** - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. **CONDUCTIVITY** - Record the conductivity of the water to the nearest  $\mu\text{mho/cm}$ .
18. **CONDUCTIVITY METHOD** - Enter the appropriate code from the list below.
19. **SECCHI DEPTH** - Record the secchi depth, or the bottom depth, if the secchi depth and the bottom depth would be equal, to the nearest tenth of a foot.
20. **BOTTOM** - Enter "Y" if the secchi depth equals the bottom depth.
21. **AC/DC** - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. **WAVEFORM** - Enter the appropriate code from the list below.
23. **PULSE RATE** - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. **AMPERAGE** - Record the amperage applied to the water, this must come from a meter on the equipment. If <1 amp, record a decimal followed by the number of milliamperes.
25. **VOLTAGE** - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. **UNITS** - Enter the number of electrofishing units used in conjunction with each other for this collection effort.
27. **BRAIL LENGTH** - Record the length of the brail to the nearest whole foot.
28. **DC WANDS** - Record the number of DC wands used with an electroshocking system.
29. **FLOW** - Enter the appropriate code from the list below.
30. **TARGET** - Enter the appropriate code from the list below.
31. **FINGERLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. **YEARLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. **OLDER TROUT EFFICIENCY** - Enter the estimate of electrofishing efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. **SCAPPERS** - Record the number of scappers.
35. **ZERO CATCH** - Record "Y" if no fish are captured during the electrofishing effort.
36. **BIAS** - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Recipe CO).
37. **BOTTOM 1, 2, 3** - Enter the appropriate code from the list below.
38. **ABUNDANCE (ABD) 1, 2, 3** - Enter the appropriate code.
39. **SUBMERGED, EMERGENT, FLOATING** - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**

- CLR
- CLDY
- HAZY
- PCDY
- RAIN
- SNOW

**ELECTROFISHING GEAR CODES**

- 57 Backpack shocker; DC
- 58 Backpack shocker; Coffelt, AC
- 61 Electric shocker; Boat, AC
- 62 Electric shocker; Boat, DC
- 63 Electric shocker; AC generator
- 64 Electric shocker; DC generator

**TARGET CODES**

- A All fish
- B Bass species
- E Esocids
- G Gamefish only
- P Percids
- T Trout, all
- F Trout, fingerlings
- Y Trout, yearlings
- Other, see Comments

**BOTTOM TYPE CODES**

- BO Boulder
- CO Cobble
- GR Gravel
- SD Sand
- ST Silt
- BR Bedrock
- CL Clay
- MD Mud

**NOTES:**

**CONDUCTIVITY METHOD**

- A Chemtrix type 700
- B Presto-tek model DP 03
- C Poly Pram model DP 30-39
- E Cole Parmer 1481 - 55
- F Presto-tek model DSPH - 3
- G DSPH - 3 Pocket Pal
- H Whatman CDM510
- I Cole Parmer 1491 - 62
- J Hanna HI 8093
- K Cole Parmer 1500 - 20
- M Cole Parmer TDS pocket meter
- L Lab analyzed, identify in comments
- R ALSC lab in Ray Brook
- Z See comments for make/model of meter
- 9 See comments for method

**FLOW CODES**

- A Gear employed against the current
  - B Gear employed with the current
  - W Gear employed both directions
- WAVEFORM CODES**
- 1 1/2 wave (pulsed DC)
  - 2 3/4 wave
  - 3 Full wave
  - 9 Other, see Comments
- ABUNDANCE CODES** - 0 = 1-5%  
 1 = 6-25%; 2 = 26-50%  
 3 = 51-90%; 4 = > 90%



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH

POND NUMBER \_\_\_\_\_

NAME OF WATER Giggle Hollow

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-3

Sheet \_\_\_\_\_ of \_\_\_\_\_

Revision Date: 7/96

Coded

SURVEY NUMBER

300027

DATE (MM/DD/YY)

9 25 00

SITE #

1

NET/RUN #

\_\_\_\_\_

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	1	329	154	30		
	2	329	136	20		
	3	329	128	15		
	4	329	147	25		
	5	329	119	12		
	6	329	150	30		
	7	329	57			
	8	329	57			
	9	329	121	10		
	10	329	76			
	11	329	71			
	12	329	68			
	13	329	75			
	14	329	68			
	15	329	91			
	16	329	62			
	17	329	112	10		
	18	329	88			

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	19	329	75			
	20	329	66			
	21	329	83			
	22	329	52			
	23	329	64			
	24	329	64			
	25	329	67			
	26	329	81			
	27	329	75			
	28	329	55			

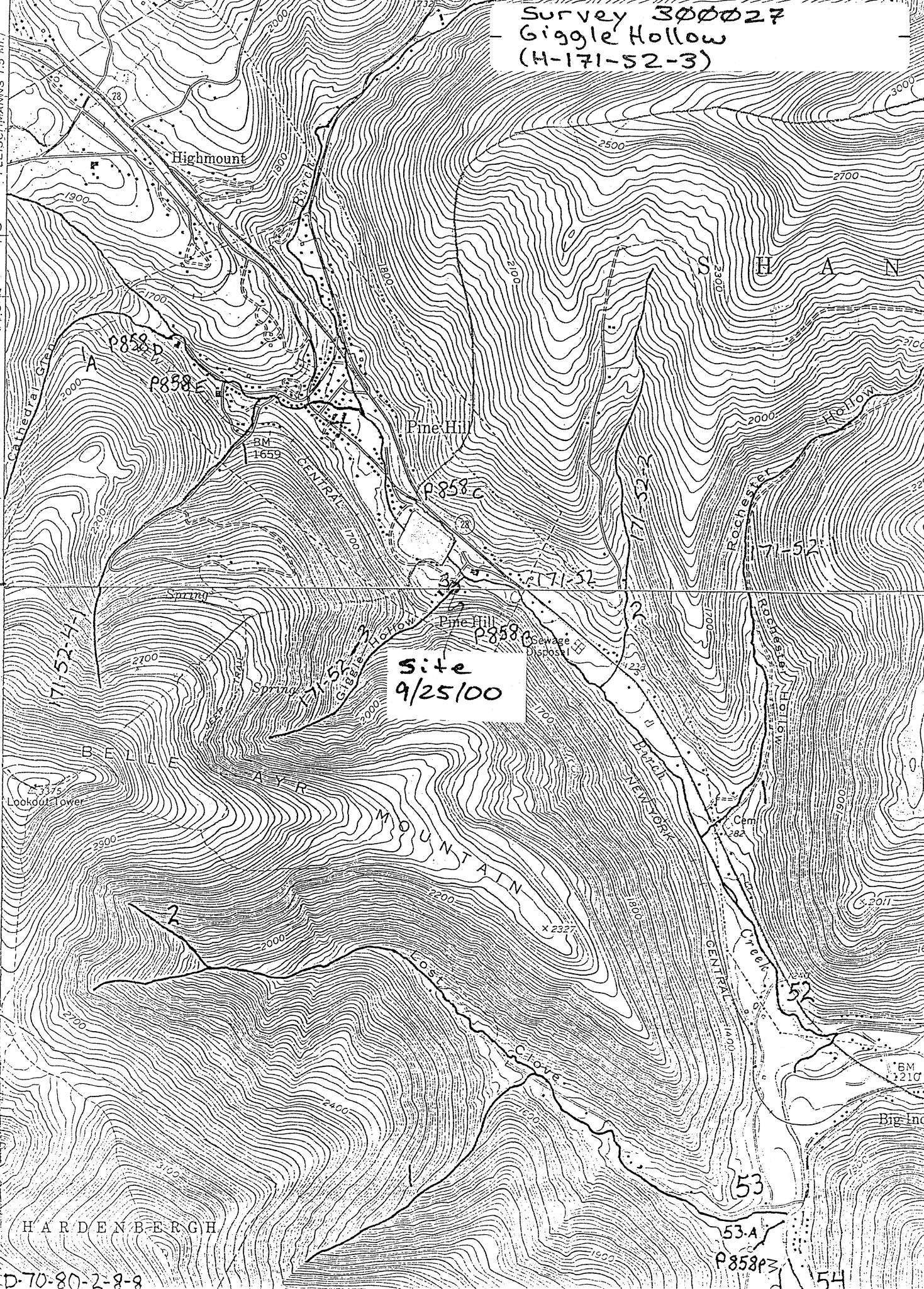
Species Code = Species  
ST or 329 = Brook trout



Survey 300027  
- Giggle Hollow  
(4-171-52-3)

WEST HILL QUAD  
SHANDAKEN QUAD

MARGARETVILLE 10 MI.  
FLEISCHMANN'S 1.5 MI.  
4665  
4664  
63000m.N.  
4662  
4661



Site  
9/25/00

53  
53.A  
P858PZ

54

HARDENBERGH

D-70-80-2-8-8



**SURVEY COVER SHEET**  
NYS Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

300025

SURVEY PURPOSE

14

WSHED

LH

P/S

S

AUTHORITY

FLAHERTY

NAME OF WATER

CATHEDRAL GLEN BROOK

No. of Pages (including cover sheet)

Rev. 9/00

WATERSHED INDEX NUMBER or POND NUMBER

H-171-52-4-1A

GENERAL SURVEY COMMENTS: (attach another sheet if additional space is needed)

This survey was conducted to determine if trout adults and/or fingerlings currently inhabit this stream. Trout adults and fingerlings were found in the 100 foot section sampled. This stream should be proposed for upgrading from its current D classification to a minimum C(TS). Protection should be given to this stream to ensure that trout and trout spawning habitat is not degraded.

SL

# STREAM SITE LOCATION RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

MAP

Y

FILE NUMBER

1593

SURVEY NUMBER

30025

AUTHORITY

FLAHERTY

SURVEY PURPOSE

14

NAME OF WATER

CATHERAL GLEN BROOK

Revision Date: 4/95

Coded

WATERSHED INDEX NUMBER (from Biological Survey overlay)

H-171-52-4-1A

TOWN/CITY (Prefix city names with an "\*\*")

SHANDAKEN

WATER CLASS

D

COUNTY

WLS

EDITION

60

QUAD TYPE

USGS

DATE (MM/DD/YY)

92500

COMMENTS

QUADRANGLE

WEST KILL

SITE DESCRIPTION

APPROX. 0.15 MI BELOW P858D

ALTITUDE

1680

RMI

0.1

RMI UP

NYTME

0

NYTMN

SITE #

DATE (MM/DD/YY)

COMMENTS

TOWN/CITY (Prefix city names with an "\*\*")

COMMENTS (Prefix city names with an "\*\*")

COUNTY

WATER CLASS

QUADRANGLE

SITE DESCRIPTION

ALTITUDE

RMI

0

RMI UP

NYTME

0

NYTMN

SITE #

DATE (MM/DD/YY)

COMMENTS

TOWN/CITY (Prefix city names with an "\*\*")

COMMENTS (Prefix city names with an "\*\*")

COUNTY

WATER CLASS

QUADRANGLE

SITE DESCRIPTION

ALTITUDE

RMI

0

RMI UP

NYTME

0

NYTMN

**STREAM SITE LOCATION RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once.
2. **FILE NUMBER** - Enter the applicable file number for this water or water segment from the watershed files.
3. **MAP** - Record a "Y" in this field if a detailed map associated to the survey is going to be kept on file in the region.
4. **AUTHORITY** - Record the last name only of the biologist or technician that is in charge of the survey.
5. **SURVEY PURPOSE** - Enter the appropriate code from the list below.
6. **NAME** - Enter the name of the water. Spell out the name in full, including terms such as lake, river, creek, etc. Do not use abbreviations unless absolutely necessary.  
Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
7. **P/S (Pond/Stream)** - Enter a "S" for all stream surveys. If a person wishes to record pond data using this form then "P" must be entered in this space.
8. **WSHED** - Enter the appropriate watershed code from the list below.
9. **WIN (Watershed Index Number)** - For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
10. **SITE NUMBER** - Site numbers are assigned consecutively by the survey party to indicate the location of a sampling effort. Do not record a leading zero with a site number (1, not 01).
11. **DATE** - Enter the month, day and year (MM/DD/YY) data on this form was collected. (Use a leading 0 for days and months less than 10.)
12. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a SL record for this survey, date, and site has been recorded. General survey comments are related to a SL record site 0, where the SITE DESCRIPTION is ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
13. **TOWN/CITY** - Enter the town or city in which the survey site was located. Spell out the name in full. Prefix city names with an "\*" if the site crosses a town or city boundary, record the town or city name of the downstream most point of the survey section.
14. **COUNTY** - Enter the first four letters of the county in which the site is located. If a stream study section crosses more than one county, record the county of the downstream most point of the survey section.
15. **WATER CLASS** - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
16. **QUADRANGLE** - Enter the map quadrangle name on which the survey site is located. If a stream study site crosses more than one quad, record the quadrangle name of the downstream most point of the survey section.
17. **EDITION** - Record the last two digits of the year the map was printed.
18. **QUAD TYPE** - Enter the appropriate code from the list below.
19. **SITE DESCRIPTION** - Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
20. **ALTITUDE** - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
21. **RMI (River Mile Index)** - Streams only. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
22. **RMI UP - Streams only.** If a stream study site is greater than 0.1 miles-in length, enter the distance in miles of the upstream most point of the stream study site from the mouth of the stream.
23. **NYTME, NYTMN** - Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

**SURVEY PURPOSE CODES**

Brood stock monitoring	- 1	Rare/endangered species	- 13
Centrarchid sampling plan	- 2	Reclassification	- 14
CROTS survey	- 3	Special regs evaluation	- 15
Egg take	- 4	Stream protection (Art 15)	- 16
Esocid sampling plan	- 5	Trap and transfer	- 17
Fish kill investigation	- 6	TSMF collection	- 18
Fish salvage operation	- 7	Post-reclamation survey	- 19
General biological survey	- 8	Pre-liming survey	- 20
Percid sampling plan	- 9	Post-liming survey	- 21
Pre-reclamation survey	- 10	Radiation sampling	- 22
Population estimate:		Monitoring of tournaments	- 23
Delury	- 11	Evaluate exp. stocking water	- 24
Petersen	- 12	Whirling disease sampling	- 25
		Other, explain in COMMENTS	- 99

**WATERSHED CODES**

Allegheny	- A	Mohawk	- M
Black	- B	Ontario	- O
Champlain	- C	Oswego	- OS
Chemung	- CM	Oswegatchie	- OW
Delaware	- D	Raquette	- R
Erie-Niagara	- EN	Susquehanna	- S
Genesee	- G	St. Lawrence	- SL
Lower Hudson	- LH	St. Lawrence, Can	- SC
Long Island	- LI	Upper Hudson	- UH

**QUAD TYPE CODES**

NY Dept of Transportation 7.5'	- NYDT
topographic or planimetric mapsheet	-
US Geological Survey 7.5'	- USGS
topographic mapsheet	-
US Geological Survey 15'	- US15
topographic mapsheet	-
US Geological survey 7.5' X 15'	- 7X15
topographic mapsheet	-
NY Bureau of Fisheries 7.5' mylar overlays.	- NYBF

**NOTES:**

**GE**

# GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH POND NUMBER \_\_\_\_\_

NAME OF WATER Cathedral Glen Brook

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-4-1A

Sheet \_\_\_\_\_ of \_\_\_\_\_ Revision Date: 4/95 Coded \_\_\_\_\_

SURVEY NUMBER  
300025

DATE (MM/DD/YY)  
9 25 00

SITE # 1 NET/RUN # \_\_\_\_\_ GEAR CODE 57 INVENTORY NUMBER \_\_\_\_\_

WEATHER \_\_\_\_\_ RAIN 48 \_\_\_\_\_ LENGTH of SHORELINE SHOCKED \_\_\_\_\_ COMMENTS \_\_\_\_\_

TIME START \_\_\_\_\_ TIME STOP 1400 ON-TIME \_\_\_\_\_ WATER 53

TEMPERATURE: AIR \_\_\_\_\_ TEMP UNITS F

SECCHI DEPTH \_\_\_\_\_ BOTTOM \_\_\_\_\_ AC/DC DC WAVEFORM \_\_\_\_\_ PULSE RATE \_\_\_\_\_

CONDUCTIVITY \_\_\_\_\_ METHOD \_\_\_\_\_

FLOW A FINGERLING EFFICIENCY \_\_\_\_\_ YEARLING EFFICIENCY \_\_\_\_\_

AMPERAGE \_\_\_\_\_ VOLTAGE 425 UNITS 2

BOTTOM COMPOSITION AND ABUNDANCE  
BOTTOM 1 ABD 1 \_\_\_\_\_ BOTTOM 2 ABD 2 \_\_\_\_\_ BOTTOM 3 ABD 3 \_\_\_\_\_

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY  
SUBMERGED \_\_\_\_\_ EMERGENT \_\_\_\_\_

SITE # \_\_\_\_\_ NET/RUN # \_\_\_\_\_ GEAR CODE \_\_\_\_\_ INVENTORY NUMBER \_\_\_\_\_

WEATHER \_\_\_\_\_ RAIN 48 \_\_\_\_\_ LENGTH of SHORELINE SHOCKED \_\_\_\_\_ COMMENTS \_\_\_\_\_

TIME START \_\_\_\_\_ TIME STOP \_\_\_\_\_ ON-TIME \_\_\_\_\_ WATER \_\_\_\_\_

TEMPERATURE: AIR \_\_\_\_\_ TEMP UNITS \_\_\_\_\_

SECCHI DEPTH \_\_\_\_\_ BOTTOM \_\_\_\_\_ AC/DC \_\_\_\_\_ WAVEFORM \_\_\_\_\_ PULSE RATE \_\_\_\_\_

CONDUCTIVITY \_\_\_\_\_ METHOD \_\_\_\_\_

FLOW \_\_\_\_\_ FINGERLING EFFICIENCY \_\_\_\_\_ YEARLING EFFICIENCY \_\_\_\_\_

AMPERAGE \_\_\_\_\_ VOLTAGE \_\_\_\_\_ UNITS \_\_\_\_\_

BOTTOM COMPOSITION AND ABUNDANCE  
BOTTOM 1 ABD 1 \_\_\_\_\_ BOTTOM 2 ABD 2 \_\_\_\_\_ BOTTOM 3 ABD 3 \_\_\_\_\_

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY  
SUBMERGED \_\_\_\_\_ EMERGENT \_\_\_\_\_

**ELECTROFISHING GEAR RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **DATE** - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. **SITE NUMBER** - Enter the number that corresponds to the description of the location of the sampling effort.
4. **NET/RUN NUMBER** - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. **GEAR CODE** - Enter the appropriate code from the list below.
6. **INVENTORY NUMBER** - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
7. **WEATHER** - Enter the appropriate code from the list below.
8. **RAIN** - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. **LENGTH OF SHORELINE SHOCKED** - Enter the length of shoreline that was fished per run to the nearest yard.
10. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. **TIME START** - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
12. **TIME STOP** - Record the time that the electrofishing run ended. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
13. **ON-TIME** - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated, as for backpack shockers.
14. **WATER TEMPERATURE** - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. **AIR TEMPERATURE** - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. **TEMP UNITS** - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. **CONDUCTIVITY** - Record the conductivity of the water to the nearest  $\mu\text{mho}/\text{cm}^2$ .
18. **CONDUCTIVITY METHOD** - Enter the appropriate code from the list below.
19. **SECCHI DEPTH** - Record the seccchi depth, or the bottom depth, if the seccchi depth and the bottom depth would be equal, to the nearest tenth of a foot.
20. **BOTTOM** - Enter "Y" if the seccchi depth equals the bottom depth.
21. **AC/DC** - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. **WAVEFORM** - Enter the appropriate code from the list below.
23. **PULSE RATE** - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. **AMPLERAGE** - Record the amperage applied to the water, this must come from a meter on the equipment. If <1 amp, record a decimal followed by the number of millamps.
25. **VOLTAGE** - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. **UNITS** - Enter the number of electroshocking units used in conjunction with each other for this collection effort.
27. **BRAIL LENGTH** - Record the length of the brail to the nearest whole foot.
28. **DC WANDS** - Record the number of DC wands used with an electroshocking system.
29. **FLOW** - Enter the appropriate code from the list below.
30. **TARGET** - Enter the appropriate code from the list below.
31. **FINGERLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. **YEARLING EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. **OLDER TROUT EFFICIENCY** - Enter the estimate of electroshocking efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. **SCAPPERS** - Record the number of scappers.
35. **ZERO CATCH** - Record "Y" if no fish are captured during the electrofishing effort.
36. **BIAS** - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO).
37. **BOTTOM 1, 2, 3** - Enter the appropriate code from the list below.
38. **ABUNDANCE (ABD) 1, 2, 3** - Enter the appropriate code.
39. **SUBMERGED, EMERGENT, FLOATING** - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**

- CLR - Backpack shocker; DC
- CLDY - Backpack shocker; Coffelt, AC
- HAZY - Electric shocker; Boat, AC
- PCDY - Electric shocker; Boat, DC
- RAIN - Electric shocker; AC generator
- SNOW - Electric shocker; DC generator

**TARGET CODES**

- A - All fish
- B - Bass species
- E - Esocids
- G - Gametfish only
- P - Percids
- T - Trout, all
- F - Trout, fingerlings
- Y - Trout, yearlings
- Other, see Comments

**BOTTOM TYPE CODES**

- A - Plant
- B - debris
- E - Vegetated
- G - Unknown
- P - Concrete
- T - Bedrock
- F - Clay
- Y - Mud

**ELECTROFISHING GEAR CODES**

- 57 - Backpack shocker; DC
- 58 - Backpack shocker; Coffelt, AC
- 61 - Electric shocker; Boat, AC
- 62 - Electric shocker; Boat, DC
- 63 - Electric shocker; AC generator
- 64 - Electric shocker; DC generator

**CONDUCTIVITY METHOD CODES**

- A - Chemtrix type 700
- B - Presto-tek model DP 03
- C - Poly Param model DP 30-39
- E - Cole Parmer 1481-55
- F - Presto-tek model DSPH - 3
- G - DSPH - 3 Pocket Pal
- H - Whatman CDM510
- I - Cole Parmer 1491 - 62
- J - Hanna HI 8033
- K - Cole Parmer 1500 - 20
- M - Cole Parmer TDS pocket meter
- L - Lab analyzed, identify in comments
- R - ALS Lab in Ray Brook
- Z - See comments for make/model of meter

**FLOW CODES**

- A - Gear employed against the current
- B - Gear employed with the current
- E - Gear employed both directions

**WAVEFORM CODES**

- 1 - 1/4 wave (pulsed DC)
- 2 - 3/4 wave
- 3 - Full wave
- 9 - Other, see Comments

**ABUNDANCE CODES** - 0 = 1-5%  
 1 = 6-25%; 2 = 26-50%  
 3 = 51-90%; 4 = > 90%

**NOTES:**



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH POND NUMBER \_\_\_\_\_  
 NAME OF WATER Cathedral Glen Brook  
 WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-4-1A

Sheet \_\_\_\_\_ of \_\_\_\_\_ Revision Date: 7/96 Coded \_\_\_\_\_

SURVEY NUMBER

300025

DATE (MM/DD/YY)

9 25 00

SITE #

1

NET/RUN #

\_\_\_\_\_

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	COM
	1	329	117	10		
	2	329	112	9		
	3	329	101	8		
	4	329	116	15		
	5	329	144	25		
	6	329	127	20		
	7	329	161	40		
	8	329	106	10		
	9	329	153	22		
	10	329	100	10		
	11	329	116	10		
	12	329	120	10		
	13	329	106	10		
	14	329	108	10		
	15	329	135	15		
	16	329	119			
	17	329	116			
	18	329	130	15		

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	COM
	19	329	120			
	20	329	107			
	21	326	57			
	22	329	125			
	23	329	109			
	24	329	104			
	25	329	140	25		
	26	329	114	10		
	27	329	107			
	28	329	136	20		
	29	329	78			
	30	329	111			
	31	329	107			
	32	329	102			
	33	329	85			

Species Code = Species

ST or 329 = Brook Trout

RT or 326 = Rainbow Trout

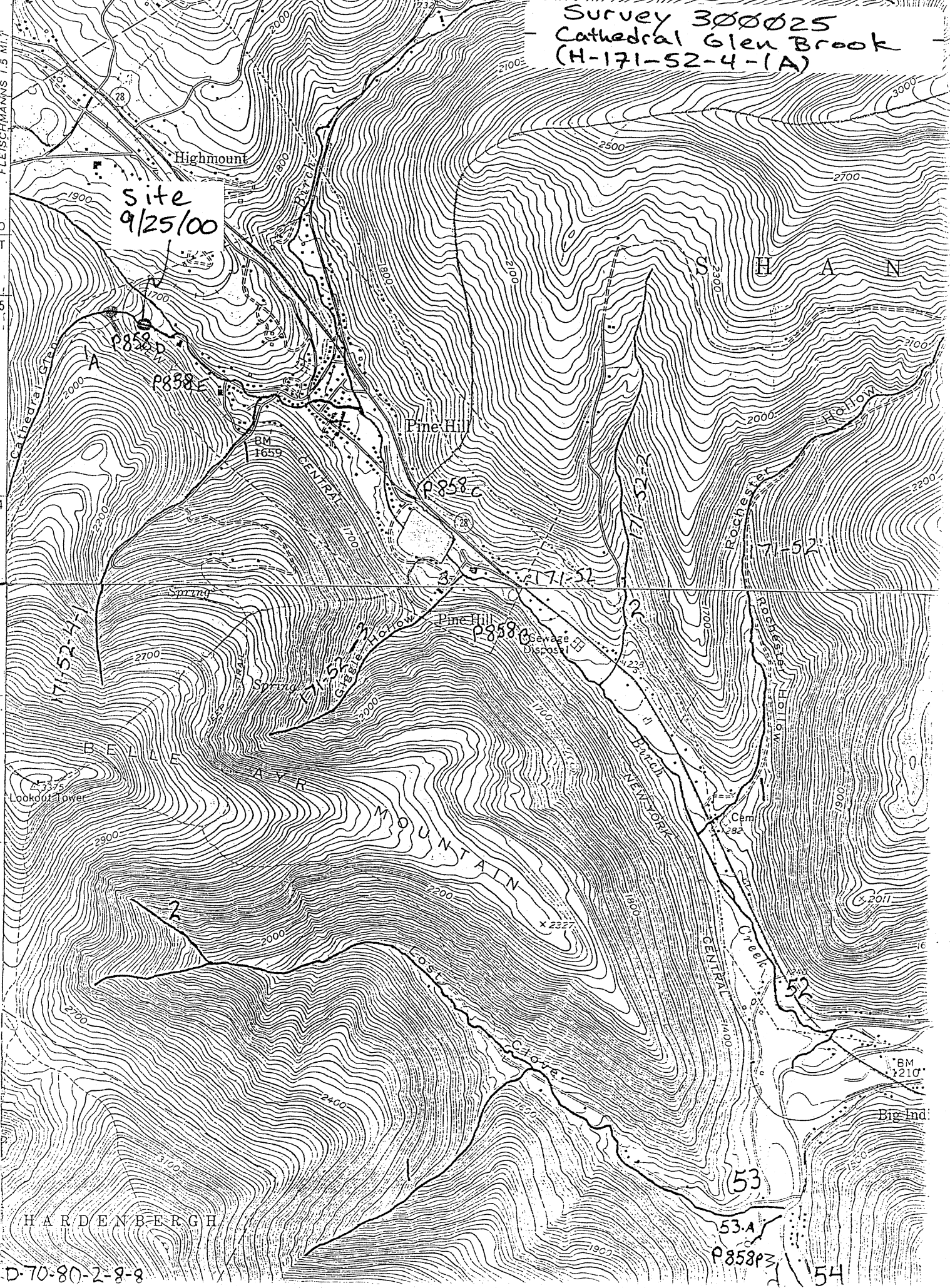


Survey 300025  
Cathedral Glen Brook  
(H-171-52-4-(A))

WEST KILL QUAD  
SHANDAKEN QUAD

MARGARETVILLE 10 MI.  
FLEISCHMANN'S 1.5 MI.  
4665  
4664  
4663  
4662  
4661  
3000m N.

site  
9/25/00



HARDENBERGH

D-70-80-2-8-8

53  
53.A  
P858P3

54

CV

**SURVEY COVER SHEET**  
NYS Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

300024

SURVEY PURPOSE

14

WSHED

LH

P/S

S

AUTHORITY

FLAHERTY

NAME OF WATER

CRYSTAL SPRING BROOK

No. of Pages (including cover sheet)

Rev. 9/00

WATERSHED INDEX NUMBER or POND NUMBER

H-171-52-4

GENERAL SURVEY COMMENTS: (attach another sheet if additional space is needed)

This survey was conducted to document if trout fingerlings currently inhabit this stream. Trout fingerlings were found at the site sampled. This stream should be proposed for upgrading from its current (T) standard to (TS). Protection should be given to this stream to ensure that trout and trout spawning habitat is not degraded.

SL

# STREAM SITE LOCATION RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet      of      Revision Date: 4/95 Coded     

FILE NUMBER

1593

SURVEY NUMBER

302724

MAP

Y

SURVEY PURPOSE

14

AUTHORITY

FLAHERTY

NAME OF WATER

CRYSTAL SPRING BROOK

WATERSHED INDEX NUMBER (from Biological Survey overlay)

11-171-52-4

WSHED

LH

TOWN/CITY (Prefix city names with an "\*")

SHANDAKEN

COMMENTS

92500

DATE (MM/DD/YY)

92500

COUNTY

ULST

WATER CLASS

B(T)

QUADRANGLE  
SITE DESCRIPTION

NEST KILL

EDITION

60

QUAD TYPE

USGS

JUSTI ABV RR CULVERTS AND UP APPROX. 150 FT

ALTITUDE

1750

RMI

0.3

RMI UP

NYTME

0

NYTMN

SITE #

COMMENTS

TOWN/CITY (Prefix city names with an "\*")

COUNTY

WATER CLASS

QUADRANGLE  
SITE DESCRIPTION

EDITION

QUAD TYPE

ALTITUDE

RMI

0

RMI UP

NYTME

0

NYTMN

SITE #

COMMENTS

TOWN/CITY (Prefix city names with an "\*")

COUNTY

WATER CLASS

QUADRANGLE  
SITE DESCRIPTION

EDITION

QUAD TYPE

ALTITUDE

RMI

0

RMI UP

NYTME

0

NYTMN

**STREAM SITE LOCATION RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **FILE NUMBER** - Enter the applicable file number for this water or water segment from the watershed files.
3. **MAP** - Record a "Y" in this field if a detailed map associated to the survey is going to be kept on file in the region.
4. **AUTHORITY** - Record the last name only of the biologist or technician that is in charge of the survey.
5. **SURVEY PURPOSE** - Enter the appropriate code from the list below.
6. **NAME** - Enter the name of the water. Spell out the name in full, including terms such as lake, river, creek, etc. Do not use abbreviations unless absolutely necessary.  
Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
7. **P/S (Pond/Stream)** - Enter a "S" for all stream surveys. If a person wishes to record pond data using this form then "P" must be entered in this space.
8. **WASHED** - Enter the appropriate watershed code from the list below.
9. **WIN (Watershed Index Number)** - For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
10. **SITE NUMBER** - Site numbers are assigned consecutively by the survey party to indicate the location of a sampling effort. Do not record a leading zero with a site number (1, not 01).
11. **DATE** - Enter the month, day and year (MM/DD/YY) data on this form was collected. (Use a leading 0 for days and months less than 10.)
12. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a SL record for this survey, date, and site has been recorded. General survey comments are related to a SL record site 0, where the **SITE DESCRIPTION** is **ENTIRE SURVEY** or **ENTIRE WATER** or verbally describes the entire section surveyed.
13. **TOWN/CITY** - Enter the town or city in which the survey site was located. Spell out the name in full. Prefix city names with an "x". If the site crosses a town or city boundary, record the town or city name of the downstream most point of the survey section.
14. **COUNTY** - Enter the first four letters of the county in which the site is located. If a stream study section crosses more than one county, record the county of the downstream most point of the survey section.
15. **WATER CLASS** - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
16. **QUADRANGLE** - Enter the map quadrangle name on which the survey site is located. If a stream study site crosses more than one quad, record the quadrangle name of the downstream most point of the survey section.
17. **EDITION** - Record the last two digits of the year the map was printed.
18. **QUAD TYPE** - Enter the appropriate code from the list below.
19. **SITE DESCRIPTION** - Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
20. **ALTITUDE** - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
21. **RMI (River Mile Index)** - Streams only. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
22. **RMI UP** - Streams only. If a stream study site is greater than 0.1 miles in length, enter the distance in miles of the upstream most point of the stream study site from the mouth of the stream.
23. **NYTME, NYTMN** - Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

**SURVEY PURPOSE CODES**

Brood stock monitoring	- 1	Rare/endangered species	- 13
Centrarchid sampling plan	- 2	Reclassification	- 14
CROTS survey	- 3	Special regs evaluation	- 15
Egg take	- 4	Stream protection (Art 15)	- 16
Esocid sampling plan	- 5	Trap and transfer	- 17
Fish kill investigation	- 6	TSMP collection	- 18
Fish salvage operation	- 7	Post-reclamation survey	- 19
General biological survey	- 8	Pre-limiting survey	- 20
Percid sampling plan	- 9	Post-limiting survey	- 21
Pre-reclamation survey	- 10	Radiation sampling	- 22
Population estimate:		Monitoring of tournaments	- 23
Delury	- 11	Evaluate exp. stocking water	- 24
Petersen	- 12	Whirling disease sampling	- 25
		Other, explain in COMMENTS	- 99

**WATERSHED CODES**

Allegheny	- A	Mohawk	- M
Black	- B	Ontario	- O
Champlain	- C	Oswego	- OS
Chemung	- CM	Oswegatchie	- OW
Delaware	- D	Raquette	- R
Erie-Niagara	- EN	Susquehanna	- S
Genesee	- G	St. Lawrence	- SL
Lower Hudson	- LH	St. Lawrence, Can	- SC
Long Island	- LI	Upper Hudson	- UH

**QUAD TYPE CODES**

NY Dept of Transportation 7.5'	- NYDT
topographic or planimetric mapsheet.	
US Geological Survey 7.5'	- USGS
topographic mapsheet.	
US Geological Survey 15'	- US15
topographic mapsheet.	
US Geological survey 7.5' X 15'	- 7X15
topographic mapsheet.	
NY Bureau of Fisheries 7.5' mylar overlays.	- NYBF

**NOTES:**



# GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

WATERSHED CODE LH POND NUMBER \_\_\_\_\_

NAME OF WATER Crystal Spring Brook

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-4

Sheet \_\_\_\_\_ of \_\_\_\_\_

Revision Date: 4/95

Coded

SURVEY NUMBER

300024

DATE (MM/DD/YY)

9 25 08

SITE # 1 NET/RUN # \_\_\_\_\_ GEAR CODE 57 INVENTORY NUMBER \_\_\_\_\_

WEATHER CLR RAIN 48 \_\_\_\_\_ LENGTH of SHORELINE SHOCKED 150 COMMENTS \_\_\_\_\_

TEMPERATURE: AIR \_\_\_\_\_ WATER 53

TEMP UNITS \_\_\_\_\_

TIME START 1300 TIME STOP 1315 ON-TIME \_\_\_\_\_

CONDUCTIVITY \_\_\_\_\_ METHOD \_\_\_\_\_

SECCHI DEPTH \_\_\_\_\_ BOTTOM \_\_\_\_\_ AC/DC DC WAVEFORM \_\_\_\_\_ PULSE RATE \_\_\_\_\_

AMPERAGE \_\_\_\_\_ VOLTAGE 430 UNITS 2

FLOW TARGET A FINGERLING EFFICIENCY \_\_\_\_\_ YEARLING EFFICIENCY 90

OLDER TROUT EFFICIENCY \_\_\_\_\_ SCAPPERS 1 ZERO CATCH \_\_\_\_\_ DAMAGE/BIAS \_\_\_\_\_

BOTTOM COMPOSITION AND ABUNDANCE

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

BOTTOM 1 ABD 1 C03 BOTTOM 2 ABD 2 GR2 BOTTOM 3 ABD 3 \_\_\_\_\_

SUBMERGED \_\_\_\_\_ EMERGENT \_\_\_\_\_

SITE # \_\_\_\_\_ NET/RUN # \_\_\_\_\_ GEAR CODE \_\_\_\_\_ INVENTORY NUMBER \_\_\_\_\_

WEATHER \_\_\_\_\_ RAIN 48 \_\_\_\_\_ LENGTH of SHORELINE SHOCKED \_\_\_\_\_ COMMENTS \_\_\_\_\_

TEMPERATURE: AIR \_\_\_\_\_ WATER \_\_\_\_\_

TEMP UNITS \_\_\_\_\_

TIME START \_\_\_\_\_ TIME STOP \_\_\_\_\_ ON-TIME \_\_\_\_\_

CONDUCTIVITY \_\_\_\_\_ METHOD \_\_\_\_\_

SECCHI DEPTH \_\_\_\_\_ BOTTOM \_\_\_\_\_ AC/DC \_\_\_\_\_ WAVEFORM \_\_\_\_\_ PULSE RATE \_\_\_\_\_

AMPERAGE \_\_\_\_\_ VOLTAGE \_\_\_\_\_ UNITS \_\_\_\_\_

BOTTOM COMPOSITION AND ABUNDANCE

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

FLOW TARGET \_\_\_\_\_ FINGERLING EFFICIENCY \_\_\_\_\_ YEARLING EFFICIENCY \_\_\_\_\_

OLDER TROUT EFFICIENCY \_\_\_\_\_ SCAPPERS \_\_\_\_\_ ZERO CATCH \_\_\_\_\_ DAMAGE/BIAS \_\_\_\_\_

BOTTOM COMPOSITION AND ABUNDANCE

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

BOTTOM 1 ABD 1 \_\_\_\_\_ BOTTOM 2 ABD 2 \_\_\_\_\_ BOTTOM 3 ABD 3 \_\_\_\_\_

SUBMERGED \_\_\_\_\_ EMERGENT \_\_\_\_\_

**ELECTROFISHING GEAR RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. SURVEY NUMBER - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. DATE - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. SITE NUMBER - Enter the number that corresponds to the description of the location of the sampling effort.
4. NET/RUN NUMBER - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. GEAR CODE - Enter the appropriate code from the list below.
6. INVENTORY NUMBER - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
7. WEATHER - Enter the appropriate code from the list below.
8. RAIN 48 - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. LENGTH OF SHORELINE SHOCKED - Enter the length of shoreline that was fished per run to the nearest yard.
10. COMMENTS - Record a "Y" if a comment record, (Rectype CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. TIME START - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
12. TIME STOP - Record the time that the electrofishing run ended. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
13. ON-TIME - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated, as for backpack shockers.
14. WATER TEMPERATURE - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. AIR TEMPERATURE - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. TEMP UNITS - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. CONDUCTIVITY - Record the conductivity of the water to the nearest  $\mu\text{mho}/\text{cm}^2$ .
18. CONDUCTIVITY METHOD - Enter the appropriate code from the list below.
19. SECCHI DEPTH - Record the secchi depth, or the bottom depth, if the secchi depth and the bottom depth would be equal, to the nearest tenth of a foot.
20. BOTTOM - Enter "Y" if the secchi depth equals the bottom depth.
21. AC/DC - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. WAVEFORM - Enter the appropriate code from the list below
23. PULSE RATE - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. AMPERAGE - Record the amperage applied to the water, this must come from a meter on the the equipment. If <1 amp, record a decimal followed by the number of milliamps.
25. VOLTAGE - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. UNITS - Enter the number of electroshocking units used in conjunction with each other for this collection effort.
27. BRAIL LENGTH - Record the length of the brail to the nearest whole foot.
28. DC WANDS - Record the number of DC wands used with an electroshocking system.
29. FLOW - Enter the appropriate code from the list below.
30. TARGET - Enter the appropriate code from the list below.
31. FINGERLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. YEARLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. OLDER TROUT EFFICIENCY - Enter the estimate of electrofishing efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. SCAPPERS - Record the number of scappers.
35. ZERO CATCH - Record "Y" if no fish are captured during the electrofishing effort.
36. BIAS - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO).
37. BOTTOM 1, 2, 3 - Enter the appropriate code from the list below.
38. ABUNDANCE (ABD) 1, 2, 3 - Enter the appropriate code.
39. SUBMERGED, EMERGENT, FLOATING - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**

- CLR
- CLDY
- HAZY
- PCDY
- RAIN
- SNOW

- Backpack shocker; DC - 57
- Backpack shocker; Coffelt, AC - 58
- Electric shocker; Boat, AC - 61
- Electric shocker; Boat, DC - 62
- Electric shocker; AC generator - 63
- Electric shocker; DC generator - 64

**TARGET CODES**

- A All fish
- B Bass species
- E Esocids
- G Gamefish only
- P Percids
- T Trout, all
- F Trout, fingerlings
- Y Trout, yearlings
- Other, See Comments - 9

**BOTTOM TYPE CODES**

- A Plant
- B debris
- E Vegetated
- G Unknown
- P Concrete
- T Bedrock
- F Marl
- Y Clay
- BO Boulder
- CO Cobble
- GR Gravel
- SD Sand
- ST Silt
- BR Marl
- ML Mud

**CONDUCTIVITY METHOD**

**CODES**

- A Chemtrix type 700
- B Presto-tek model DP 03
- C Poly Pram model DP 30-39
- E Cole Parmer 1481 - 55
- F Presto-tek model DSPH - 3
- G DSPH - 3 Pocket Pal
- H Whatman CDM510
- I Cole Parmer 1491 - 62
- J Hanna HI 6039
- K Cole Parmer 1500 - 20
- M Cole Parmer TDS pocket meter
- L Lab analyzed, identify in comments
- R ALSC lab in Ray Brook
- Z See comments for make/model of meter
- 9 See comments for method

**FLOW CODES**

- A Gear employed against the current
- B Gear employed with the current
- W Gear employed both directions

**WAVEFORM CODES**

- 1 1/2 wave (pulsed DC)
- 2 3/4 wave
- 3 Full wave
- 9 Other, see Comments

**NOTES:-**

**ABUNDANCE CODES** - 0 = 1-5%  
 1 = 6-25%; 2 = 26-50%  
 3 = 51-90%; 4 = > 90%



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet      of     

Revision Date: 7/96

Coded

WATERSHED CODE LH

POND NUMBER     

NAME OF WATER Crystal Spring Brook

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-4

SURVEY NUMBER 300024

DATE (MM/DD/YY) 9 25 00

SITE # 1

NET/RUN #     

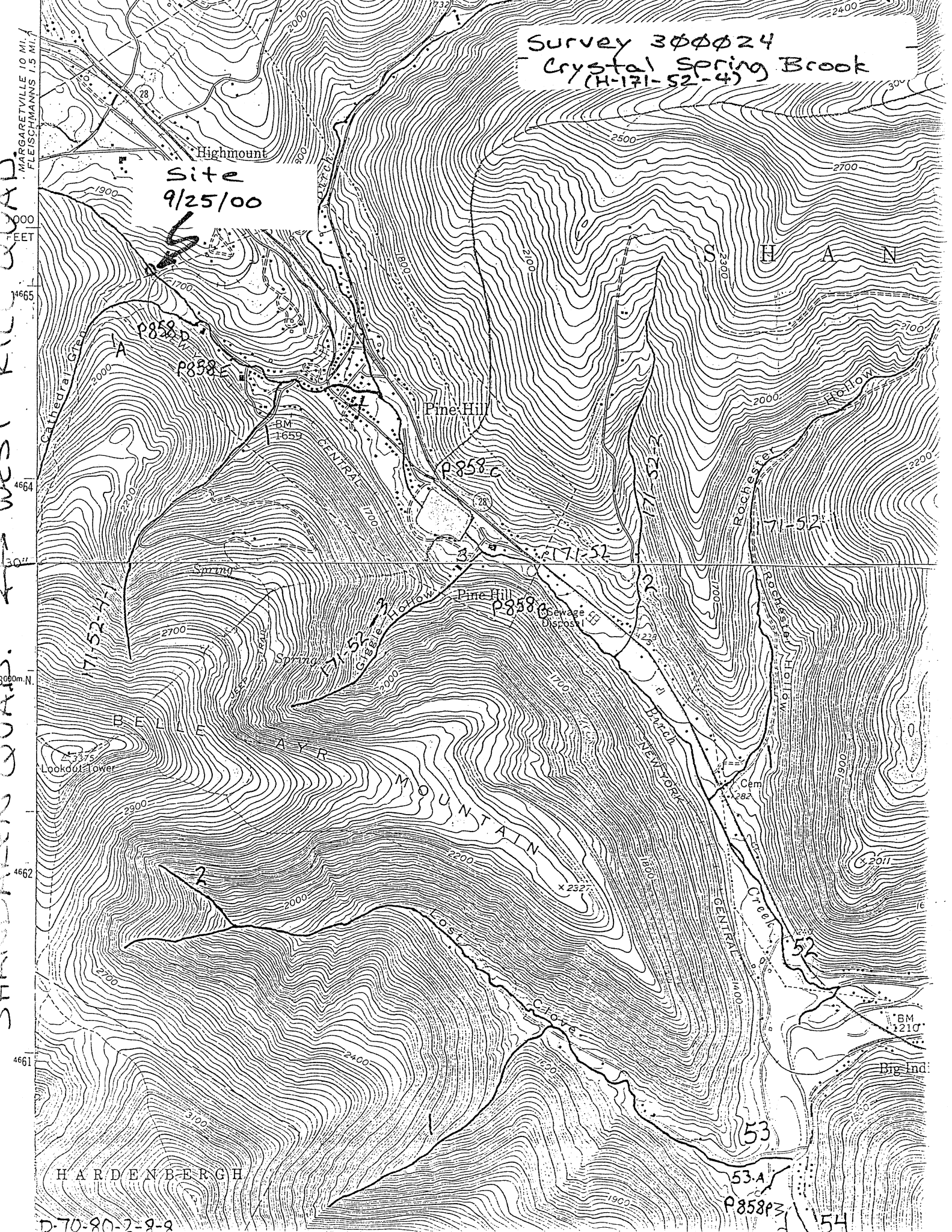
PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	1	329	107	12		
	2	329	101	10		
	3	329	117	16		
	4	329	117	20		
	5	329	116	21		
	6	329	101	14		
	7	329	118	20		
	8	329	103	20		
	9	329	142	35		
	10	329	160	51		
	11	329	117	19		
	12	329	106	6		
	13	329	114	7		
	14	329	112	6		
	15	329	89	5		
	16	329	126	9		
	17	329	115	13		
	18	329	99			

PANEL NO	FISH NUMBER	SPECIES CODE	LENGTH (MM)	WEIGHT (GM)	AGE	C O M M
	19	329	108			
	20	329	74			
	21	329	101			
	22	329	164			

WEST KILL QUAD  
SHANDALEN QUAD

Survey 300024  
Crystal Spring Brook  
(H-171-52-4)

Site  
9/25/00



HARDENBERGH

D-70-80-2-8-8

53  
53.A  
P858p

54



CV

**SURVEY COVER SHEET**  
NYS Bureau of Fisheries: Fisheries Data Base

SURVEY NUMBER

300026

SURVEY PURPOSE

14

WSHED

LH

P/S

S

AUTHORITY

FLAHERTY

NAME OF WATER

WOODCHUCK HOLLOW

No. of Pages (including cover sheet)

Rev. 9/00

WATERSHED INDEX NUMBER or POND NUMBER

H-171-52-4-1

GENERAL SURVEY COMMENTS: (attach another sheet if additional space is needed)

This survey was conducted to determine if trout adults and/or fingerlings currently inhabit this stream. Trout adults and fingerlings were found in the 90 foot section sampled. This stream should be proposed for upgrading from its current D classification to a minimum C(TS). Protection should be given to this stream to ensure that trout and trout spawning habitat is not degraded.

The site sampled included sections above and below a bridge. This bridge had a concrete slab that was much higher than the streambed on the downstream side. This very likely serves as a barrier to upstream migration of fish. Of the 13 trout collected, only one adult rainbow and two fingerlings were collected above this barrier. Approximately 30 feet of stream was sampled downstream of the bridge and 60 feet above the bridge.

SL

# STREAM SITE LOCATION RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

MAP

Y

FILE NUMBER

1593

SURVEY NUMBER

300426

AUTHORITY

FLAHERTY

SURVEY PURPOSE

14

NAME OF WATER

WOODCHUCK HOLLOW

Sheet of

Revision Date: 4/95

Coded

P/S WSHED WATERSHED INDEX NUMBER (from Biological Survey overlay)

LH 11-171-52-4-1

SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "\*")

1 9 25 00 SHANDAKE N

WATER CLASS

D

COUNTY

ULST

QUADRANGLE WEST KILL

EDITION 60

QUAD TYPE 05GS

SITE DESCRIPTION

UNDER FIRST BRIDGE NEAR MOUTH

ALTITUDE 1560 RMI 0 RMI UP 0 NYTME 0 NYTMN

SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "\*")

WATER CLASS

COUNTY

QUADRANGLE

EDITION

QUAD TYPE

SITE DESCRIPTION

ALTITUDE RMI RMI UP NYTME NYTMN

SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "\*")

WATER CLASS

COUNTY

QUADRANGLE

EDITION

QUAD TYPE

SITE DESCRIPTION

ALTITUDE RMI RMI UP NYTME NYTMN

**STREAM SITE LOCATION RECORD**

Coding Instructions. See Data Dictionary for detailed information.

1. **SURVEY NUMBER** - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. **FILE NUMBER** - Enter the applicable file number for this water or water segment from the watershed files.
3. **MAP** - Record a "Y" in this field if a detailed map associated to the survey is going to be kept on file in the region.
4. **AUTHORITY** - Record the last name only of the biologist or technician that is in charge of the survey.
5. **SURVEY PURPOSE** - Enter the appropriate code from the list below.
6. **NAME** - Enter the name of the water. Spell out the name in full, including terms such as lake, river, creek, etc. Do not use abbreviations unless absolutely necessary.  
Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
7. **P/S (Pond/Stream)** - Enter a "S" for all stream surveys. If a person wishes to record pond data using this form then "P" must be entered in this space.
8. **WSHED** - Enter the appropriate watershed code from the list below.
9. **WIN (Watershed Index Number)** - For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
10. **SITE NUMBER** - Site numbers are assigned consecutively by the survey party to indicate the location of a sampling effort. Do not record a leading zero with a site number (1, not 01).
11. **DATE** - Enter the month, day and year (MM/DD/YY) data on this form was collected. (Use a leading 0 for days and months less than 10.)
12. **COMMENTS** - Record a "Y" if a comment record (Rectype CO) relating to a SL record for this survey, date, and site has been recorded. General survey comments are related to a SL record site 0, where the SITE DESCRIPTION IS ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
13. **TOWN/CITY** - Enter the town or city in which the survey site was located. Spell out the name in full. Prefix city names with an "\*". If the site crosses a town or city boundary, record the town or city name of the downstream most point of the survey section.
14. **COUNTY** - Enter the first four letters of the county in which the site is located. If a stream study section crosses more than one county, record the county of the downstream most point of the survey section.
15. **WATER CLASS** - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
16. **QUADRANGLE** - Enter the map quadrangle name on which the survey site is located. If a stream study site crosses more than one quad, record the quadrangle name of the downstream most point of the survey section.
17. **EDITION** - Record the last two digits of the year the map was printed.
18. **QUAD TYPE** - Enter the appropriate code from the list below.
19. **SITE DESCRIPTION** - Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
20. **ALTITUDE** - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
21. **RMI (River Mile Index) - Streams only**. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
22. **RMI UP - Streams only**. If a stream study site is greater than 0.1 miles-in length, enter the distance in miles of the upstream most point of the stream study site from the mouth of the stream.
23. **NYTME, NYTMN** - Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

**SURVEY PURPOSE CODES**

- |                           |      |                              |      |
|---------------------------|------|------------------------------|------|
| Brood stock monitoring    | - 1  | Rare/endangered species      | - 13 |
| Centrarchid sampling plan | - 2  | Reclassification             | - 14 |
| CROTS survey              | - 3  | Special regs evaluation      | - 15 |
| Egg take                  | - 4  | Stream protection (Art 15)   | - 16 |
| Esocid sampling plan      | - 5  | Trap and transfer            | - 17 |
| Fish kill investigation   | - 6  | TSP collection               | - 18 |
| Fish salvage operation    | - 7  | Post-reclamation survey      | - 19 |
| General biological survey | - 8  | Pre-liming survey            | - 20 |
| Percid sampling plan      | - 9  | Post-liming survey           | - 21 |
| Pre-reclamation survey    | - 10 | Radiation sampling           | - 22 |
| Population estimate:      |      | Monitoring of tournaments    | - 23 |
| Delury                    | - 11 | Evaluate exp. stocking water | - 24 |
| Petersen                  | - 12 | Whirling disease sampling    | - 25 |
|                           |      | Other, explain in COMMENTS   | - 99 |

**WATERSHED CODES**

- |              |      |                   |      |
|--------------|------|-------------------|------|
| Allegheny    | - A  | Mohawk            | - M  |
| Black        | - B  | Ontario           | - O  |
| Champlain    | - C  | Oswego            | - OS |
| Chemung      | - CM | Oswegatchie       | - OW |
| Delaware     | - D  | Raquette          | - R  |
| Erie-Niagara | - EN | Susquehanna       | - S  |
| Genesee      | - G  | St. Lawrence      | - SL |
| Lower Hudson | - LH | St. Lawrence, Can | - SC |
| Long Island  | - LI | Upper Hudson      | - UH |

**QUAD TYPE CODES**

- |   |        |
|---|--------|
| NY Dept of Transportation 7.5'              | - NYDT |
| topographic or planimetric mapsheet         | -      |
| US Geological Survey 7.5'                   | - USGS |
| topographic mapsheet                        | -      |
| US Geological Survey 15'                    | - US15 |
| topographic mapsheet                        | -      |
| US Geological survey 7.5' X 15'             | - 7X15 |
| topographic mapsheet                        | -      |
| NY Bureau of Fisheries 7.5' mylar overlays. | - NYBF |

**NOTES:**

# GE

## GEAR, ELECTROFISHING RECORD

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet 1 of 6

Revision Date: 4/95

Coded

WATERSHED CODE LH

POND NUMBER

NAME OF WATER Woodchuck Hollow

WATERSHED INDEX NUMBER (STREAMS ONLY)

SURVEY NUMBER

300026

DATE (MM/DD/YY)

9/25/00

INVENTORY NUMBER

57

GEAR CODE

DC

NET/RUN#

1449

SITE #

1

WEATHER 910

RAIN 48

TEMPERATURE: AIR

WATER

ON-TIME

AC/DC

WAVEFORM

PULSE RATE

INVENTORY NUMBER

LENGTH of SHORELINE SHOCKED

TEMP UNITS

AIR

WATER

ON-TIME

AC/DC

WAVEFORM

PULSE RATE

INVENTORY NUMBER

CONDUCTIVITY

UNITS

VOLTAGE

AMPERAGE

PULSE RATE

WAVEFORM

PULSE RATE

INVENTORY NUMBER

BRAIL LENGTH

SCAPPERS

OLDER TROUT EFFICIENCY

YEARLING EFFICIENCY

ABD 1

ABD 2

ABD 3

ABD 3

ABD 3

DAMAGE/BIAS

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

EMERGED

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

EMERGED

EMERGED

EMERGED

EMERGED

EMERGED

WEATHER

RAIN 48

TEMPERATURE: AIR

WATER

ON-TIME

AC/DC

WAVEFORM

PULSE RATE

INVENTORY NUMBER

LENGTH of SHORELINE SHOCKED

TEMP UNITS

AIR

WATER

ON-TIME

AC/DC

WAVEFORM

PULSE RATE

INVENTORY NUMBER

CONDUCTIVITY

UNITS

VOLTAGE

AMPERAGE

PULSE RATE

WAVEFORM

PULSE RATE

INVENTORY NUMBER

BRAIL LENGTH

SCAPPERS

OLDER TROUT EFFICIENCY

YEARLING EFFICIENCY

ABD 1

ABD 2

ABD 3

ABD 3

ABD 3

DAMAGE/BIAS

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

EMERGED

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

EMERGED

EMERGED

EMERGED

EMERGED

EMERGED

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

EMERGED

VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY

EMERGED

EMERGED

EMERGED

EMERGED

EMERGED

EMERGED

Coding Instructions. See Data Dictionary for detailed information.

1. SURVEY NUMBER - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
2. DATE - Enter the month, day and year the data on this form was collected. (Use a leading zero for days and months less than 10. ie. 03/06/92).
3. SITE NUMBER - Enter the number that corresponds to the description of the location of the sampling effort.
4. NET/RUN NUMBER - If a piece of gear was used at the same site on the same day then assign each separate collection effort a sequential net/run number.
5. GEAR CODE - Enter the appropriate code from the list below.
6. INVENTORY NUMBER - Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
7. WEATHER - Enter the appropriate code from the list below.
8. RAIN 48 - Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
9. LENGTH OF SHORELINE SHOCKED - Enter the length of shoreline that was fished per run to the nearest yard.
10. COMMENTS - Record a "Y" if a comment record, (Rectype CO) relating to a GE record for this collection effort (survey, date, site, and net/run) has been completed.
11. TIME START - Record the time that the electrofishing run began. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
12. TIME STOP - Record the time that the electrofishing run ended. Use 24 format, i.e. 3:30 PM = 1530. Record times in Eastern Standard or Daylight Savings time, whichever is in effect when the survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
13. ON-TIME - Record the time, in hours and hundredths of hours that the electrofishing gear was actually applying current to the water and actively fishing. This can be either determined from meters on the generator or control box, or estimated, as for backpack shockers.
14. WATER TEMPERATURE - Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
15. AIR TEMPERATURE - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
16. TEMP UNITS - Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
17. CONDUCTIVITY - Record the conductivity of the water to the nearest  $\mu\text{mho}/\text{cm}$ .
18. CONDUCTIVITY METHOD - Enter the appropriate code from the list below.
19. SECCHI DEPTH - Record the secchi depth, or the bottom depth, if the secchi depth and the bottom depth would be equal, to the nearest tenth of a foot.
20. BOTTOM - Enter "Y" if the secchi depth equals the bottom depth.
21. AC/DC - Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
22. WAVEFORM - Enter the appropriate code from the list below.
23. PULSE RATE - For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
24. AMPERAGE - Record the amperage applied to the water, this can come from a meter on the equipment. If <1 amp, record a decimal followed by the number of milliamperes.
25. VOLTAGE - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
26. UNITS - Enter the number of electroshocking units used in conjunction with each other for this collection effort.
27. BRAIL LENGTH - Record the length of the brail to the nearest whole foot.
28. DC WANDS - Record the number of DC wands used with an electroshocking system.
29. FLOW - Enter the appropriate code from the list below.
30. TARGET - Enter the appropriate code from the list below.
31. FINGERLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
32. YEARLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
33. OLDER TROUT EFFICIENCY - Enter the estimate of electrofishing efficiency as it relates to older trout (2+ and older). If the efficiency estimate is not broken down into fingerling, yearling, and older groups, then record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
34. SCAPPERS - Record the number of scappers.
35. ZERO CATCH - Record "Y" if no fish are captured during the electrofishing effort.
36. BIAS - Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO).
37. BOTTOM 1, 2, 3 - Enter the appropriate code from the list below.
38. ABUNDANCE (ABD) 1, 2, 3 - Enter the appropriate code.
39. SUBMERGED, EMERGENT, FLOATING - Enter the appropriate code that best describes the abundance of each type of vegetation.

**WEATHER CODES**  
 CLR - Clear  
 CLDY - Cloudy  
 HAZY - Hazy  
 PCDY - Partly cloudy  
 RAIN - Raining  
 SNOW - Snowing

**ELECTROFISHING GEAR CODES**  
 57 - Backpack shocker; DC  
 58 - Backpack shocker; Coffelt, AC  
 61 - Electric shocker; Boat, AC  
 62 - Electric shocker; Boat, DC  
 63 - Electric shocker; AC generator  
 64 - Electric shocker; DC generator

**TARGET CODES**  
 A - All fish  
 B - Bass species  
 E - Esocids  
 G - Gamefish only  
 P - Percids  
 T - Trout, all  
 Y - Trout, fingerlings  
 F - Trout, yearlings  
 Other, see Comments

**BOTTOM TYPE CODES**  
 BO - Boulder  
 CO - Cobble  
 GR - Gravel  
 UN - Sand  
 ST - Silt  
 BR - Marl  
 CL - Clay  
 MD - Mud

**CONDUCTIVITY METHOD CODES**  
 A - Chemtrix type 700  
 B - Presto-tek model DP 03  
 C - Poly Prism model DP 30-39  
 D - Cole Parmer 1481 - 65  
 E - Presto-tek model DSPH - 3  
 F - DSPH - 3 Pocket Pal  
 G - Whatman CDM510  
 H - Hanna HI 8033  
 I - Cole Parmer 1481 - 62  
 J - Hanna HI 8033  
 K - Cole Parmer 1500 - 20  
 L - Cole Parmer TDS pocket meter  
 M - Lab analyzed, identify in comments  
 N - ALSC lab in Ray Brook  
 O - See comments for make/model of meter  
 P - See comments for method

**WAVEFORM CODES**  
 1 - 1/2 wave (pulsed DC)  
 2 - 3/4 wave  
 3 - Full wave  
 4 - Other, see Comments

**FLOW CODES**  
 A - Gear employed against the current  
 B - Gear employed with the current  
 W - Gear employed both directions

**ABUNDANCE CODES**  
 0 = 1-5%  
 1 = 6-25%  
 2 = 26-50%  
 3 = 51-90%  
 4 = > 90%

**NOTES:**



# INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Sheet      of     

Revision Date: 7/96

Coded

WATERSHED CODE LH

POND NUMBER     

NAME OF WATER Woodchuck Hollow

WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52-4-1

SURVEY NUMBER

300026

DATE (MM/DD/YY)

9 25 00

SITE #

1

NET/RUN #

PANEL NO

FISH NUMBER

1

SPECIES CODE

326

LENGTH (MM)

144

WEIGHT (GM)

40

AGE

C O M M

2

329

120

20

3

329

91

4

320

80

5

329

83

6

326

65

7

328

77

8

328

80

9

328

75

10

326

71

11

329

72

12

329

77

13

326

57

<u>Species Code</u>	=	<u>Species</u>
ST or 329	=	Brook trout
BT or 328	=	Brown trout
RT or 326	=	Rainbow trout

Survey 300026  
- Woodhuck Hollow  
(H-171-52-4-1)

WEST KILL QUAD  
SHANDYKEN QUAD

MARGARETVILLE 10 MI.  
FLEISCHMANN'S 1.5 MI.

1000  
FEET

665

664

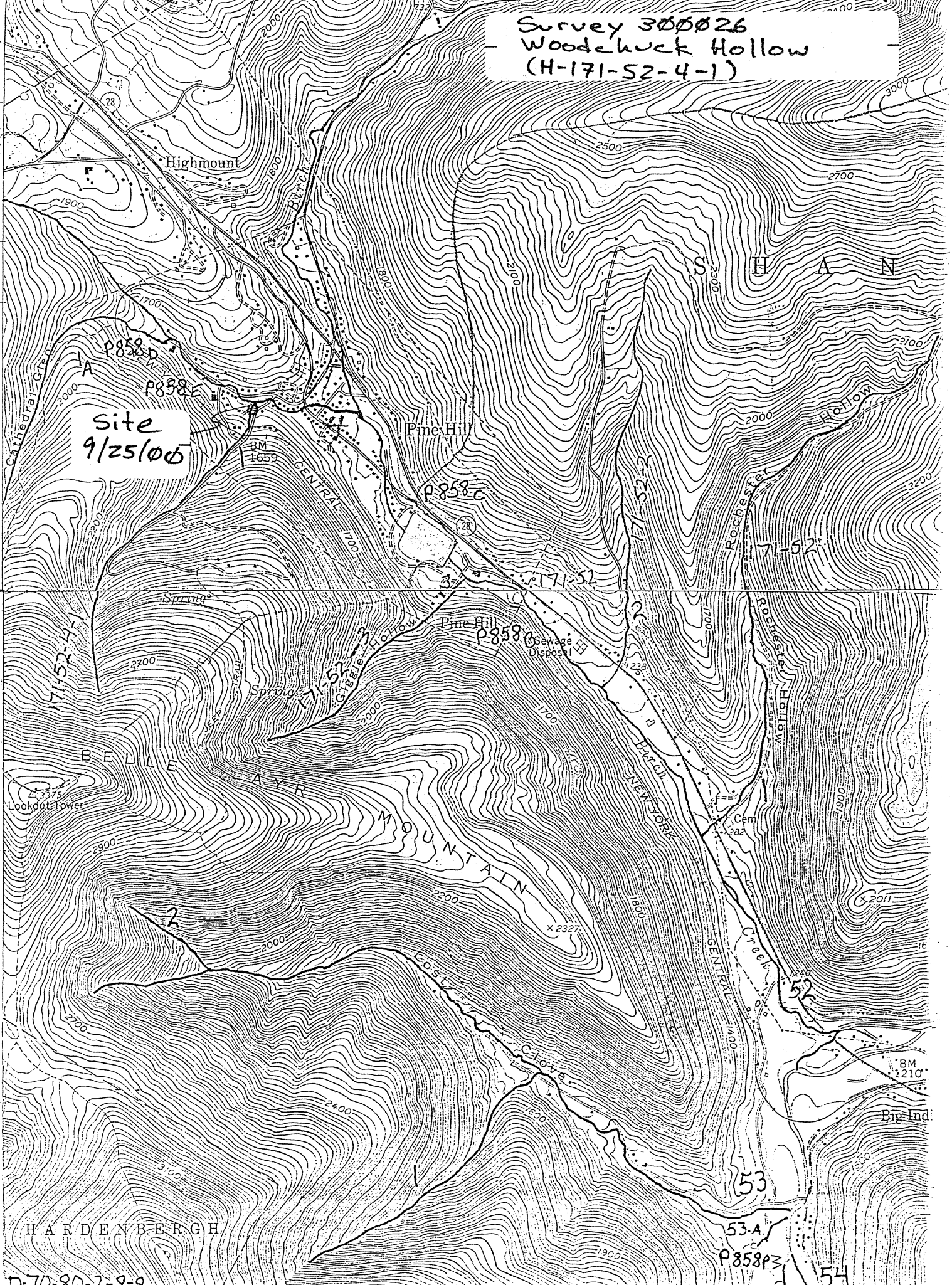
663

662

661

660

659



site  
9/25/05

P858D

P838E

Pine Hill

P858C

Pine Hill

P858B

Sewage Disposal

171-52-4-1

171-52-4-1

171-52-4-1

171-52-4-1

BELLE

AYR

LOST CLOVE

NEW YORK

ROCHESTER HOLLOW

Lookout Tower

Spring

Spring

Spring

Spring

Spring

Spring

Spring

2

X 2327

52

53

53.A

P858P3

54

HARDENBERGH

D-70-80-2-8-8

Big Ind.

BM 1210

C 2011

16

16

16

16

16