DRAFT Environmental Impact Statement

Appendix 20

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 Redeyed 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 pupureus*), 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 hemlocknorthern 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 auratu*; 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 (*Agelaicus 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 beechmaple 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 Broadwinged 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, Yelllow-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).

Common Name

Scientific Name

Ardea herodias

Great Blue Heron
Green-backed Heron
Mallard Duck
Turkey Vulture
Sharp-shinned Hawk
Cooper's Hawk
Broad-winged Hawk
Red-tailed Hawk
American Kestrel
Ruffed Grouse
Wild Turkey
Killdeer
Mourning Dove

Black-billed Cuckoo Yellow-billed Cuckoo Great Horned Owl

Barred Owl

Chimney Swift Ruby-throated Hummingbird

Belted Kingfisher

Yellow-bellied Sapsucker Downy Woodpecker Hairy Woodpecker Northern Flicker Pileated Woodpecker Eastern Wood-Peewee Alder Flycatcher Least Flycatcher

Great-crested Flycatcher Eastern Kingbird Tree Swallow Cliff Swallow Barn Swallow Blue Jay

Eastern Phoebe

American Crow

Black-capped Chickadee

Tufted Titmouse Red-breasted Nuthatch White-breasted Nuthatch Butorides striatus
Anas platyrhynchos
Cathartes aura
Accipiter striatus
Accipiter cooperii
Buteo platypterus
Buteo jamaicensis
Falco sparverius
Bonasa umbellus
Meleagris gallopavo
Charadrius vociferus
Zenaida macroura

Coccyzus erythropthalmus Coccyzus americanus Bubo virginiana

Strix varia

Chaetura pelagica Archilochus colubris

Ceryle alcyon
Sphyrapicus varius
Picoides pubescens
Picoides villosus
Colaptes auratus
Dryocopus pileatus
Contopus virens
Empidonax alnorum
Empidonax minimus
Sayornis phoebe
Myiarchus crinitus
Tyrannus tyrannus
Tachycineta bicolor

Hirundo pyrrhonota
Hirundo rustica
Cyanocitta cristata
Corvus brachyrhynchos
Parus atricapillus
Parus bicolor
Sitta canadensis

Sitta carolinensis

Brown Creeper Winter Wren

Golden-crowned Kinglet

Eastern Bluebird

Veery

Hermit Thrush Wood Thrush American Robin Gray Catbird

Northern Mockingbird

Brown Thrasher
Cedar Waxwing
European Starling
Blue-headed Vireo
Yellow-throated Vireo

Warbling Vireo
Red-eyed Vireo
Blue-winged Warbler
Nashville Warbler
Yellow Warbler

Chestnut-sided Warbler Magnolia Warbler

Black-throated Blue Warbler Yellow-rumped Warbler Black-throated Green Warbler Black-and-white Warbler

American Redstart

Ovenbird

Louisiana Waterthrush Mourning Warbler Common Yellowthroat

Canada Warbler Scarlet Tanager Northern Cardinal Rose-breasted Grosbeak

Indigo Bunting
Eastern Towhee
Chipping Sparrow
Field Sparrow
Song Sparrow

White-throated Sparrow

Dark-Eyed Junco Red-winged Blackbird Common Grackle

Brown-headed Cowbird

Baltimore Oriole

Certhia americana Troglodytes troglodytes

Regulus satrapa Sialia sialis

Catharus fuscescens
Catharus guttatus
Hylocichla mustelina
Turdus migratorius
Dumetella carolinensis
Mimus polyglottos
Toxostoma rufum
Bombycilla cedrorum

Sturnus vulgaris
Vireo solitarius
Vireo flavifrons
Vireo gilvus
Vireo olivaceus
Vermivora pinus
Vermivora ruficapilla
Dendroica petechia
Dendroica magnolia
Dendroica caerulescens
Dendroica coronata

Mniotilta varia
Setophaga ruticilla
Seiurus aurocapillus
Seiurus motacilla
Oporornis philadelphia
Geothlypis trichas
Wilsonia canadensis
Piranga olivacea
Cardinalis cardinalis

Passerina cyanea

Dendroica virens

Pipilo erythrophthalmus

Pheucticus ludovicianus

Spizella passerina Spizella pusilla Melospiza melodia Zonotrichia albicollis

Junco hyemalis
Agelaicus phoeniceus
Quiscalus quiscula
Molothrus ater
Icterus galbula

Purple Finch House Finch American Goldfinch House Sparrow Carpodacus purpureus Carpodacus mexicanus Carduelis tristis Passer domesticus

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

Table 2. continued

Species		

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

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

Vermivora pinus

BM

Blue-winged Warbler

Table 3. continued

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

¹Habitat 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 Altlas 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 (*Diadophus 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 left 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.

Literature Cited:

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- Heyer, W.R., M.A. Donnelly, R.W. McDiarmid, L.C. Hayek, M.S. Foster, 1994. Measuring and Monitoring Biological Diversity, Standard Methods for Amphibians. Smithsonian Institution Press, Washington.
- 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.
- Petranka, J.W. 1998. Salamanders of the United States and Canada. Smithsonian Institution Press, Washington.

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

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.

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

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.

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

crossroads ventures llc

DRAFT Environmental Impact Statement

Appendix 20

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=3+64 • FAX: (914) 255-4659

Website: www.dec.state.ny.us

3069 mile

8 November 2000

NOV 1 3 2000

John P Cahill

Commissioner

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)

MJF:mjf File:LAGroup.wpd

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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 (7½1) 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 frout) 10%
--

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.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FISH COLLECTION OR SMALL STREAM SURVEY

QuadFleischmanns (7%) County Delaware Efficiency (yg trout) 25% Date 7/30/76 Authority W. Adriance _ Acres_ W 57 Time (EST). Total 1 067 Name and key Emory Br. (D-70-80-12) 1 L Depth_ 0.2 abv. Mth. 70 'Young trout per acre (adjusted total). H Temp: A_ Geor 230V DC Georator Factors: W NSA N 3 Width Survey Delaware Station location___ Length.

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.

573.2

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Stocking policy:

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

Stocking policy:

94147 (5/76)

	Number and description	yg: 8(2.2-2.9") yr: 17(6.0-7.4") older: 4(8.1-11.3")	yg: - yr: = older: 1(7.0")					
_	Abun- dance	÷	U U					
-	Name of species	Salmo trutta	Salvelinus fontinalis Cottus sp.	•				
	Number and description	yg: 9(2.2-3.1") yr: 14(3.5-4.5") older: 7(4.9-5.5")						
	Abun- dance	-	U					
	Name of species	alvelinus <u>fontinalis</u>	ottus sp.		•	•	<i>Σ.</i>	

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

Posting Notes

Hiscellaneous:

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.

stocking Policy:

Entire; 5.0 miles, BT, ST, NSA

interion Entire Mileage (Section) 5.0 Mileage (Entire) 5.0 County(s) Delaware, Greene Town(s) Middletown, Halcott Date TOWN(s) Middletown, Halcott Intershed Delaware Date TOWN(s) Middletown, Halcott Intershed Delaware Date TOWN(s) Middletown, Halcott Intershed Delaware Date TOWN(s) Mileage (Entire) Costage Mileage (Section) Accessibility (Entire) Four inhabited area (Section) Accessibility (Entire)	re, Greene Town(s) Midgearetyille (151), Phoenicia (151), France Town(s) Midgearetoille (151), Phoenicia (151), France Town(s) Midgearetion) Accessibility (Entable of Section) 5.0 Accessibility (Entable of Section) Trout inhabited or ns, falls, pollution, dredging, erosion, etc.)	dame & Key of Miream Emory Brook (D-70-80-12)	Brook (D-70-80-12) Quality Classification C(+)
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		pecial features (dams, falls, po	llution, dredging, erosion, etc.)

FW-87

	Station Location	0.3 bel. T7 Upper (3)	Middle (2)	0.2 abv Mth Lower (1)	
6 2					
^	Average Width (Actual) (Normal)	6'(4.5-15')		15'(10-16')	
	Depth	6'(4.5-15')		15'(10-16')	
		1.5':0.1'		1.5':0.18'	
	Volume	. 40 010		1.6 cfs	
	Velocity	mod-low		mod-low	
	Color	white		white	
	Turbidity	none		none	
	Altitude	2,020'		1,515'	
	Bottom	R, Gr, St,		<u>G</u> , R	
	Temperature	74 A. W. 58	A. W.	70 A. W. 5	
	Time-Weather	1:30-cloudy		12:00-cloud	
	Habitat % Pool	(1) 15% G. 1	% G.	(1) 40% G .	
	Shelter Cover	3		1	
	Fertility Forage 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'	
		+	**************************************		

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

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 2001 Width 12 (5-20) epth 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

unty(s) Delaware, Greene Town(s) Middletown, Halcott adrangle(s) Margaretville (15'), Phoenicia (15'), Fleischmanns (7½'), West Kill (7½') tershed Delaware Date 7/30/76 Authority W. Adriance vious Stocking Posted Mileage (Section)
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Number and description	yg: 8(2.2-2.9") yr: 17(6.0-7.4") older: 4(8.1-11.3")	yg: - yr: = older: 1(7.0")				
Abun- dance	†	υυ				
Name of species	Salmo trutta	Salvelinus fontinalis Cottus sp.	•			
Number and description	yg: 9(2.2-3.1") yr: 14(3.5-4.5") older: 7(4.9-5.5")					
Abun- dance	-	ပ				
Name of species	alvelinus fontinalis	ottus sp.				

STREAM SITE LOCATION RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
 - FILE NUMBER Enter the applicable file number for this water or water segment from the watershed files.
- 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.
 - AUTHORITY Record the last name only of the biologist or technician that is in charge of the survey.
 - SURVEY PURPOSE Enter the appropriate code from the list below. 4.00.00
- 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".
 - 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. WSHED - Enter the appropriate watershed code from the list below.
- WIN (Watershed Index Number) For streams, enter the complete watershed index number as indicated on Biological Survey Unit map overlays.
- 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). ö
- 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.)
 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 <u>SITE DESCRIPTION</u> 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
 - WATER CLASS Enter the classification standard for the stream as listed in the appropriate article of the NYCRR. 5. 5.
- 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
 - EDITION Record the last two digits of the year the map was printed. 17. 18.
 - QUAD TYPE Enter the appropriate code from the list below.
- SITE DESCRIPTION Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks. 5
- ALTITUDE Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet. 20.
- RMI (<u>River Mile Index</u>) Streams only. Enter the distance in miles of the downstream most point of the stream study site from the <u>mouth</u> of the stream.
- 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 21.
 - 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

		NYDT	USGS	US15	7X15	NYBF		
QUAD TYPE CODES	NY Dept of Transportation 7.5'	topographic or planimetric mapsheet US Geological Survey 7.5'	topograpphic mapsheet. US Geological Survey 15'	topographic mapsheet. US Geological survey 7.5' X 15'	topographic mapsheet.	overlays.		
	∑	0 ·	OW	s s · · s	SC H			
WAIERSHED CODES	Mohawk	Ontario Oswego	Oswegatchie Raquette	Susquehanna St. Lawrence	St. Lawrence, Can Upper Hudson			
MAIERS	4	m U	Σ O · ·	N N U	5 5 			
-	Allegheny	black Champlain	Chemung Delaware	Erle-Niagara Genesee	Lower Hudson Long Island			
	E. 2	 . .	. 16	<u> </u>	. 20 . 21	- 22 - 23	. 24	- 88
	Rare/endangered species	Special regs evaluation	Trap and transfer	Post-reclamation survey	Post-liming survey	Monitoring of tournaments	Evaluate exp. stocking water Whirling disease sampling	Other, explain in COMMENTS
	- 0		100 60		G Ç	2 :	- 12	
	Brood stock monitoring Centrarchid sampling plan	CROTS survey	Esocid sampling plan Fish kill investigation	Fish salvage operation General biological survey	Percid sampling plan	Population estimate:	Delury Petersen	

WATERSHED CODE LH NAME OF WATER BICCL CLOCK WATERSHED INDEX NUMBER (STREAMS ONLY)	396818 DATE (MM/DD/YY)	VALUMBER WEATHER RAIN 48 SHORELINE SHOCKED COMMENTS TEMPERATURE: TEMP TEMP		AMPERAGE VOLTAGE UNITS BRAIL LENGTH DC WANDS	IENCY OLDER TROUT EFFICIENCY SCAPPERS ZERO CATCH DAMAGE/BIAS VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY SUBMERGED EMERGENT FLOATING	NUMBER WEATHER RAIN 48 SHORELINE SHOCKED COMMENTS TEMPERATURE: TEMPERA	2	AMPERAGE VOLTAGE UNITS BRAIL LENGTH DC WANDS []	FICIENCY OLDER TROUT EFFICIENCY SCAPPERS ZERO CATCH DAMAGE/BIAS	VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY SUBMERGED EMERGENT FLOATING
GEAR, ELECTROFISHING RECORD NYSDEC Bureau of Fisheries: Fisheries Data Base	Bandon Za L (Coma Sur	SITE # NET/RUN# GEAR CODE INVENTORY N	TIME START TIME STOP ON-TIME [1 8 4 5 1 1 2 5	SECCHI DEPTH BOTTOM AC/DC WAVEFORM PULSE RATE	FLOW TARGET FINGERLING EFFICIENCY YEARLING EFFICIENCY A BOTTOM COMPOSITION AND ABUNDANCE BOTTOM 1 ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD 3 FOLIA COMPOSITION AND ABUNDANCE BOTTOM 1 ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD 3	* NET/RUN# GEAR CODE INVENTOR	TIME START TIME STOP ON-TIME	SECCHI DEPTH BOTTOM AC/DC WAVEFORM PULSE RATE	FLOW TARGET FINGERLING EFFICIENCY YEARLING EFFICI	BOTTOM 1 ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD 3

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

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
- 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).
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
- 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. GEAR CODE - Enter the appropriate code from the list
 - 5.6.9.8.7.6.5.
- INVENTORY NUMBER Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD)
 - WEATHER Enter the appropriate code from the list below.
- RAIN 48 Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours. LENGTH of SHORELINE SHOCKED - Enter the length of shoreline that was fished per run to the nearest yard.
- 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.
 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.
- 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. <u>~</u>
 - 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. WATER TEMPERATURE Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- 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. AIR TEMPERATURE - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
 - CONDUCTIVITY Record the conductivity of the water to the nearest µmho/cm³.
 - CONDUCTIVITY METHOD Enter the appropriate code from the list below.
- 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 BOTTOM - Enter "Y" if the secchi depth equals the bottom depth.
- AC/DC Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
- WAVEFORM Enter the appropriate code from the list below
- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
- 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. VOLTAGE Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
 UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.
- BRAIL LENGTH Record the length of the brail to the nearest whole foot.
- DC WANDS Record the number of DC wands used with an electroshocking system.
 - FLOW Enter the appropriate code from the list below.

 - TARGET Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
- 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. YEARLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
 - SCAPPERS Record the number of scappers.
- BIAS Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO), ZERO CATCH - Record "Y" if no fish are captured during the electrofishing effort.
 - BOTTOM 1, 2, 3 Enter the appropriate code from the list below. 34. 35. 37. 38.
 - ABUNDANCE (ABD) 1, 2, 3 Enter the appropriate code.
- SUBMERGED, EMERGENT, FLOATING Enter the appropriate code that best describes the abundance of each type of vegetation.

Gear employed against the Gear employed with the

CONDUCTIVITY METHOD

current current

Chemtrix type 700

				Presto-tek model DP 03
WEATHER CODES	ELECTROFISHING GEAR CODES	TARGET CODES	BOTTOM TYPE CODES	Poly Pram model DP 30-36
				Cole Parmer 1481 - 55
Clear - CLR	Backpack shocker; DC - 57	All fish - A	Plant Boulder - BO	DSPH - 3 Pocket Pal
	Backpack shocker; Coffelt, AC - 58	Bass species - B	debris - PD Cobble - CO	Whatman CDM510
	Electric shocker; Boat, AC - 61	Esocids - E	Vegetated - VG Gravel - GR	Cole Parmer 1491 - 62
	Electric shocker: Boat. DC - 62	Gamefish only G	- UN Sand	Hanna HI 8033
	Flactric shocker: AC denerator - 63	Percids - P	· CT Silt	Cole Parmer 1500 - 20
	Flactric shocker: DC deparator = 64	Trout, all		Cole Parmer TDS pocket
		Trout, fingerlings - F		meter
		Trout, yearlings - Y		comments

Comments

NOTES

Other, see

-	•	Gear employed both directions - E			WAVEFORM CODES		1/2 wave (pulsed DC) - 1	3/ wave - 2	Full wave - 3	Other, see Comments - 9			STAGO TOM ACTUAL	ABUNDANCE CODES - 0 = 1-5%	1 = 6-25%; 2 = 26-50%	3 = 51-90%; 4 = > 90%	
•	0	Б	ı. L	5	Ŧ.			¥		¥,			. H		2 -	6 -	
	Poly Pram model DP 30-39	Cole Parmer 1481 - 55	Presto-tek model DSPH - 3	DSPH - 3 Pocket Pal	Whatman CDM510	Cole Parmer 1491 - 62	Hanna HI 8033	Cole Parmer 1500 - 20	Cole Parmer TDS pocket	meter	Lab analyzed, identify in	comments	ALSC lab in Ray Brook	See comments for	make/model of meter	See comments for method	

		ITS	go	DS	AS			ΩC	SO	SY	
	0	COMMENTS	METHOD	DC WANDS	DAMAGE/BIAS	SS ONLY FLOATING	COMMENTS] METHOD	DC WANDS	DAMAGE/BIAS	OS ONLY FLOATING
7	1 (m)		<u> </u>		DAM	VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY JBMERGED EMERGENT FLOATIN	8		7	DAM	VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY JBMERGED EMERGENT FLOATIN
1 1 1	(MM/DD/YY)	Hocke	CONDUCTIVITY CONDUCTIVITY	BRAIL LENGTH	ᆼ	CE - PC	OCKED	CONDUCTIVITY	BRAIL LENGTH] 	ЭЕ - РО
POND NUMBER H-171-C	DATE (LENGTH of IELINE SHO	CONIC	BRAII	30 сатсн	JNDAN	GTH of	CONC	BRAIL	ZERO CATCH	INDANC
	Q	LENGTH of SHORELINE SHOCKED	:	•	ZERO	N AND ABUI	LENGTH of SHORED]	₹*.1 ±	ZEF	N AND ABUNEMERGENT
S ONLY		·	a ss	UNITS	8 —	TION A	Ω̈́		STIND] _{&}	TION A
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Birch XNUMBER	SURVEY NUMBER	<u> </u> <u> </u>	0	VOLTAGE	ENCY	VEGETATIC SUBMERGED			VOLTAGE	ENCY	VEGETATIC SUBMERGED
WATERSHED CODE NAME OF WATER _ WATERSHED INDEX	SVEY N	WEATHER C C L	<u> </u>		OLDER TROUT EFFICIENCY	VE SUBI	WEATHER	, charge		OLDER TROUT EFFICIENCY	SUBA
WATERSHED COC NAME OF WATER WATERSHED INDI	3 (N)	≱ []	TEMPERATURE:	AGE .	TROUT		×	TEMPERATURE:	GE .	TROUT	
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NG RECORD heries Data Base	Coded	INVENTORYNUMBER	W W	PULSE RATE	YEARLING EFFICIENCY OL	TOM 3 ABD	INVENTORY NUMBER	WATER	PULSE RATE	EFFICIENCY	TOM 3 ABD
-ISHING RECORD			. 33	PULSE RATE	YEARLING EFFICIENCY	TOM 3 ABD	INVENTOR		PULSE RATE	YEARLING EFFICIENCY	TOM 3 ABD
FROFISHING RECORD	4/95	INVENTOR	. 33	RATE	YEARLING EFFICIENCY	TOM 3 ABD	INVENTOR		ATE	YEARLING EFFICIENCY	TOM 3 ABD
LECTROFISHING RECORD ureau of Fisheries: Fisheries Data Base	4/95	INVENTOR	W W	WAVEFORM PULSE RATE	YEARLING EFFICIENCY	TOM 3 ABD	INVENTOR	ON-TIME WATER	WAVEFORM PULSE RATE	YEARLING EFFICIENCY	TOM 3 ABD
R, ELECTROFISHING RECORD			ON-TIME WAT	AC/DC WAVEFORM PULSE RATE	YEARLING EFFICIENCY	TOM 3 ABD		ON-TIME	PULSE RATE	YEARLING EFFICIENCY	TOM 3 ABD
GEAR, ELECTROFISHING RECORD NYSDEC Bureau of Fisheries: Fisheries Data Base	4/95	GEAR CODE INVENTOR	ON-TIME WAT	AC/DC WAVEFORM PULSE RATE		TOM COMPOSITION AND ABUNDANCE BOTTOM 2 ABD 2 BOTTOM 3 ABD GR	GEAR CODE (INVENTOR)	STOP ON-TIME	AC/DC WAVEFORM PULSE RATE	FINGERLING EFFICIENCY YEARLING EFFICIENCY	TOM COMPOSITION AND ABUNDANCE BOTTOM 2 ABD 2 BOTTOM 3 ABD
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GEAR, ELECTROFISHING RECORD NYSDEC Bureau of Fisheries: Fisheries Data Base	4/95	NET/RUN# GEAR CODE INVENTOR	TIME STOP ON-TIME WAS	BOTTOM AC/DC WAVEFORM PULSE RATE	YEARLING EFFICIENCY	ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD 2 C C C C C C C C C C C C C C C C C C	NET/RUN# GEAR CODE (NVENTGR)	TIME STOP ON-TIME	BOTTOM AC/DC WAVEFORM PULSE RATE	YEARLING EFFICIENCY	BOTTOM COMPOSITION AND ABUNDANCE ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD
GEAR, ELECTROFISHING REC	Revision Date: 4/95	GEAR CODE INVENTOR	TIME STOP ON-TIME WAT	PTH BOTTOM AC/DC WAVEFORM PULSE RATE	FINGERLING EFFICIENCY FINGERLING EFFICIENCY FINGERLING EFFICIENCY	BOTTOM COMPOSITION AND ABUNDANCE ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD ABD 2 BOTTOM 3 ABD ABD 3 ABD 4 ABD 4 ABD 5 ABD 6 ABD 6 ABD 7 A	GEAR CODE (INVENTOR)	STOP ON-TIME	AC/DC WAVEFORM PULSE RATE	FINGERLING EFFICIENCY YEARLING EFFICIENCY	TOM COMPOSITION AND ABUNDANCE BOTTOM 2 ABD 2 BOTTOM 3 ABD

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

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 - GEAR CODE Enter the appropriate code from the list
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 - RAIN 48 Enter 'Y' if significant rain, that could bias the data, has fallen at the site during the previous 48 hours. WEATHER - Enter the appropriate code from the list below.
- LENGTH of SHORELINE SHOCKED Enter the length of shoreline that was fished per run to the nearest yard.
- 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.
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 - meters on the generator or control box, or estimated as for backpack shockers.
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- AIR TEMPERATURE Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
 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.
 - CONDUCTIVITY Record the conductivity of the water to the nearest umho/cm3
- SECCH! 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 CONDUCTIVITY METHOD - Enter the appropriate code from the list below.
 - BOTTOM Enter "Y" if the secchi depth equals the bottom depth.
- AC/DC Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
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- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
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 UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.
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 - FLOW Enter the appropriate code from the list below.
- TARGET Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
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 - SCAPPERS Record the number of scappers.
- ZERO CATCH Record "Y" if no fish are captured during the electrofishing effort.

 BIAS Enter "Y" if the electrofishing effort was biased, or the equipment damaged. Explain in comments (Rectype CO)
 - BOTTOM 1, 2, 3 Enter the appropriate code from the list below. ABUNDANCE (ABD) 1, 2, 3 - Enter the appropriate code. 34. 35. 37. 39.
- SUBMERGED, EMÉRGENT, FLOATING Enter the appropriate code that best describes the abundance of each type of vegetation.

WEATHER CODES	CODES	ELECTROFISHING GEAR CODES	TARGET CODES	S BOTTOM TYPE C	OM TY	PE C
	CLR	Backpack shocker; DC - 57	All fish - A	- A Plant		Boul
	CLDY	Backpack shocker; Coffelt, AC - 58		v	- PD	8
Hazy -	- HAZY	Electric shocker; Boat, AC - 61	Esocids - E	Vegetated	· VG Grav	Grav
	PCDY	Electric shocker; Boat, DC - 62	Gamefish only - G	Unknown	NO -	Sanc
	RAIN	Electric shocker: AC generator - 63	Percids - P	Concrete	· cT	Silt
	SNOW	Flactric shocker: DC generator - 84	Trout, all	Bedrock	BB	Mari
		בוסכמוס פווסכעפוי בי אבווסיומיסו		č		:

					Chemtrix type 700
					Presto-tek model DP 03
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SOCI	200	Z Z Z	BOLLOM LYPE CODES	S)	Cole Parmer 1481 - 55
- 1	. 1				Presto-tek model DSPH - 3
۷.	Plant		Boulder	80	DSPH - 3 Pocket Pal
œ	debris	Po	Cobble	ვ	Whatman CDM510
ш	Vegetated	VG	Gravel	. GR	Cole Parmer 1491 - 62
5	Unknown	NO.	Sand	os -	Hanna HI 8033
۵.	Concrete	٠.	±	7	Cole Parmer 1500 - 20
. - -	Bedrock	ä	Mari	3	Cole Parmer TDS pocket
. 11	, i	i c			meter
L >	Clay	ر د	Mud	Q.	Lab analyzed, identify in
-					comments
					ALSC lab in Ray Brook
6 - 5					See comments for

Comments

NOTES

Other, see

rout, fingerlings rout, yearlings

	WAVEFORM CODES		½ wave (pulsed DC) - 1	% wave - 2	Full wave	Other, see Comments . 9			TOTAL COLUMN	ABUNDANCE CODES - 0 = 1-5%	1 = 6-25%; 2 = 26-50%	3 = 51-90%; 4 = > 90%	
5	I	_	7	¥		¥		ب	Œ		7	6	
•	•	•	٠	٠		•		•	•		•	•	
USPH - 3 Pocket Pal	Whatman CDM510	Cole Parmer 1491 - 62	Hanna HI 8033	Cole Parmer 1500 - 20	Cole Parmer TDS pocket	meter	Lab analyzed, identify in	comments	ALSC lab in Ray Brook	See comments for	make/model of meter	See comments for method	

≥ ⋖

FLOW CODES

CONDUCTIVITY METHOD

CODES

Gear employed against the Gear employed with the

current current Gear employed both directions

trix type 700

ひ の	STREAM CHARACTERISTICS REC	S RECORD Data Base	WATERSHED CODE LH WATERSHED INDEX NUMBER			**
Sheet_of	Revision Date: 4/95 Coded	þí	SURVEY NUMBER 3 9 6 0 0 1	мвея Ø (8	DATE (MM/DD/YY)	SITE#
TIME 1230	STREAM WIDTH CHANNEL WIDTH		MAX DEPTH M	MEAN DEPTH METH	METHOD GRADIENT	COMMENTS
SECTION LENGTH	VELOCITY METHOD	DISCHARGE ME	METHOD POOL LENGTH	QUALITY S Y	WATER TEMP AIR TEMP	TEMP UNITS
DISSOLVED OXYGEN	YGEN METHOD PH	метнор Z [4]		TOTAL ALKALINITY	метнор со	CONDUCTIVITY METHOD
SHELTER GRADE	SHELTER DESCRIPTION B	C 85 5	CWE DA	DER		
COVER GRADE	COVER DESCRIPTION DF BRANKE	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ME			
VEGETATION ABUND.	ND. VEGETATION DESCRIPTION					
SHELTER GRADE CODE COVER GRADE CODE VEGETATION ABUNDANCE	CODE - Percentage of the stream study section that provides instream shelter (rocks, boulders, undercut banks, etc.): ODE - Percentage of the stream study section covered by overhanging objects (brush, tree branches, bridges, etc.): JNDANCE - N = None; 0 = 1 - 5%; 1 = 6 - 25%; 2 = 26 - 50%; 3 = 51 - 90%; 4 = >90%; Blank = not evaluated	ction that provides inst ction covered by overt ; 2 = 26 - 50%; 3 = 51	ream shelter (rocks, boi nanging objects (brush, - 90%; 4 = >90%; Blan	ulders, undercut bank tree branches, bridge k = not evaluated	1 = 0 - 20%; 2 = 1 = 0 - 25%; 2 =	21 - 40%; 3 = >40% 26 - 50%; 3 = >50%
	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?	SIMULIIDS & HYDROPSYCHIDS?	WATERCRESS COMPLEX?	INSECT FORAGE?	? [V] ALGAE ON ROCKS?	ON LEAVES	MINNOWS W
WEATHER C C O Y	STREAM CHARACTER CODES [M 0	BANK DESCRI	BANK DESCRIPTION CODES	Bottom 1 ABD S	BOTTOM TYPE and ABUNDANCE ABD 2 ABD 1 Bottom 2 ABD 2 ABD 2	E CODES Bottom 3 ABD 3
Clear - CLR Cloudy - CLDY Hazy - HAZY Partly Cloudy - PCDY	Dry - DY Slow - SL Dry - Pools - DP Stagnant - SG Fast - FA Swampy - SW Low - Flow - LF Tidal - TD	୍ ଅଟ		ebris -		Marl - ML Vegetated - VG Unknown - UN
_ ∞	- MD Torrent	Industrial - IN Pasture - PA Meadow - MW Mixed forest - MF	Stony - SN Suburb - SU Swamp - SW Urban - UR	Gravel - GR N = None 0 = 1 - 5%	Concrete - CT Abundance Codes (A) 1 = 6 - 25% 2 = 26 - 50%	:f (ABD) 3 = 51 - 90% 4 = > 90% Blank = not evaluated

STREAM CHARACTERISTICS RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
- 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)
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
- 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.
 - STREAM WIDTH Record the average width of the stream study section from water's edge to water's edge to the nearest whole foot. 7.00.00.00.
 - CHANNEL WIDTH Record the average width of the channel, or streambed (bank to bank) to the nearest whole foot.
 - MAX DEPTH Enter the maximum depth of the water at the site to the nearest tenth of a foot.
 - MEAN DEPTH Enter the average depth of the water at the site to the nearest tenth of a foot.

 - MEAN DEPTH METHOD Enter the appropriate code from the list below.
- 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. 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.
 - SECTION LENGTH Record the length of the site to the nearest whole foot.

 - VELOCITY Record the average veloctity of the stream through the site to the nearest tenth of a foot per second.
 - VELOCITY METHOD Enter the appropriate code from the list below.
- DISCHARGE Record the average discharge volume through the site to the nearest hundredth of a cubic foot per second. DISCHARGE METHOD - Enter the appropriate code from the list below.
 - POOL LENGTH Record the total, summed length of pools in the section to the nearest whole foot.
 - QUALITY Enter "Y" if the pools at the site can be considered as high quality trout habitat.
- WATER TEMPERATURE Record the water temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- AIR TEMPERATURE Record the air temperature at the site in degrees Făhrenheit or Celsius, as accurately as equipment allows. 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.
 - DISSOLVED OXYGEN METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C). DISSOLVED OXYGEN - Record the concentration of dissolved oxygen at the site to the nearest tenth mg/l.
 - pH METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C) pH - Record the pH of the water at the site to the nearest hundredth.
- <code>FOTAL</code> ALKALINITY Record the total alkalinity of the water at the site in tenths of ${\sf mg}$ CaCO, ${\sf M}$
- TOTAL ALKALINITY METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectyp C).
 - CONDUCTIVITY Record the conductivity of the water at the site to the nearest μmho/cm³.
- CONDUCTIVITY METHOD Record the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C) SHELTER GRADE - Enter the appropriate code from the list below.
 - SHELTER DESCRIPTION Briefly describe the shelter present in the stream.
 - COVER GRADE Enter the appropriate code from the list below.
- COVER DESCRIPTION Briefly describe the cover present over the stream.
 - VEGETATION ABUNDANCE Enter the appropriate code from the list below.
- VEGETATION DESCRIPTION Briefly describe the aquatic vegetation present in the stream.
- 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.
- SIMULIDS & HYDROPSYCHIDS Enter "Y" if the stream supports abundant simuliids and/or hydropsychid caddisflies associated with a lake outlet, or "N" if it does not.
- 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.
 - INSECT FORAGE Enter the code that best describes the abundance and availability of insect forage.
 - ALGAE Enter the code that best describes the abundance of algae on rocks at the site.
- LEAVES PRESENT Enter the ∞ de that best describes the abundance of leaves on the bottom of the stream.
 - MINNOWS Enter the code that best describes the abundance of minnows smaller than 2.5" in the stream.
 - WEATHER Enter the appropriate code from the list below.
- RAIN 48 Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours. STREAM CHARACHTER CODES, BANK DESCRIPTION CODES, BOTTOM TYPE CODES, ABUNDANCE (ABD) CODES Enter the appropriate codes. Up to three codes may be selected.

Derived from discharge - 1 Float method - 1 Direct measurement of discharge - 1 Salt slug Mean of Thalweg measurements - 2 Salt slug method - 2 Dye method - 2 Velocity meter - 7 Float used to estimate velocity, cross measured Visual estimate - 8 Visual estimate - 8 Other, see Comments - 9 Other, see Comments - 9 Other, see Comments - 9 Other, explain in Comments - 9 Other, see Comments - 9 Other, explain in Comments - 9 Other, exp	MEAN DEPTH METHOD CODES	ES	VELOCITY METHOD CODES	ODES	DISCHA	ARGE ME	DISCHARGE METHOD CODES	
ects - 3 Velocity meter - 7 Float used to estimate velocity, cross - 8 Visual estimate - 8 sectional area measured for discharge - 3 - 9 Other, see Comments - 9 Gauge readings and conversion where	Derived from discharge Mean of Thalweg measurements	- 2	Float method Salt slug method	- 2	Direct measurement of discharge Dye method	- 2	Sait slug Velocity meter, cross	Ŭ.
	Mean of closs sectional transects Visual estimate Other, explain in Comments	ຕ ໝ ໝ ່ ່ ່ ທ	Velocity meter Visual estimate Other, see Comments	- 8 6	Float used to estimate velocity, cross sectional area measured for discharge Gauge readings and conversion of the the		measured Visual estimate	

Other method, explain in Comments

Gauge readings and conversion charts

Salt brick

sectional area





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S	STREAM CHARACTERISTICS RECORD NYSDEC Bureau of Fisheries: Fisheries Data Base	RECORD ata Base	WATERSHED CODE	NAME H-(7)	E Birch Croe	4
Sheetof	Revision Date: 4/95 Coded		SURVEY NUMBER [3 9 6 9 1	8	DATE (MM/DD/YY)	SITE #
TIME	STREAM WIDTH CHANNEL WIDTH	<u>L</u>	ЕРТН	MEAN DEPTH METHOD	OD GRADIENT	COMMENTS
276				<u>-</u>		
SECTION LENGTH	VELOCITY METHOD	DISCHARGE ME	METHOD POOL LENGTH	QUALITY	WATER TEMP AIR TEMP S S S S S S S S S S	TEMP UNITS
DISSOLVED OXYGEN	GEN METHOD PH	METHOD		TOTAL ALKALINITY	METHOD CONDUCTIVITY	
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SHELTER GRADE	_					
N	BO SOME UN	06800	75			
COVER GRADE	COVER DESCRIPTION					
LEGETATION ABUND	VEGETATION DESCRIPTION					
0						
SHELTER GRADE CODE COVER GRADE CODE VEGETATION ABUNDANCE	CODE - Percentage of the stream study section that provides instream shelter (rocks, boulders, undercut banks, etc.): NDE - Percentage of the stream study section covered by overhanging objects (brush, tree branches, bridges, etc.): NDANCE - N = None; 0 = 1 - 5%; 1 = 6 - 25%; 2 = 26 - 50%; 3 = 51 - 90%; 4 = >90%; Blank = not evaluated	on that provides insi on covered by overt := 26 - 50%; 3 = 51	tream shelter (rocks, bo nanging objects (brush, - 90%; 4 = >90%; Blan	ulders, undercut banks tree branches, bridges, k = not evaluated	etc.): 1 = 0 - 20%; 2 = 21 - 40%; 3 etc.): 1 = 0 - 25%; 2 = 26 - 50%; 3	6; 3 = >40% 5; 3 = >50%
	Enter Y for present or N for not present, if evaluated.		CROTS VARIABLES Enter the proper code, if evaluated:	er the proper code, if ev		H = High; M = Moderate; L = Low; N = None
10 INSECT SPP?	V SIMULIIDS & HYDROPSYCHIDS?	WATERCRESS COMPLEX?	INSECT FORAGE?	? [M] ALGAE ON ROCKS?	N [PRESENT? []	MINNOWS < 2.5"
WEATHER	STREAM CHARACTER CODES	BANK DESCRI	K DESCRIPTION CODES	Bottom 1 ABD 1	IYPE and ABUNDANCE Bottom 2 ABD 2	0m 3 /
Clear - CLR			More March		<u>]</u>	
>	- SG - SG	<u>.</u>	Lawn - LW Road - RD	Mud - MD - Silt - SI	Bedrock - BR	Mari - ML Vegetated - VG Unknown - UN
rarliy Cloudy - PCDY Raining - RAIN	Flow - LF Tidal Parte - MD Torrent	sn -		Sand - SD Gravel - GR	0 - 6	
Snowing - SNOW RAIN 48	- SA	Mixed forest - MF	Suburb - SU Swamp - SW Urban - UR	N = None 0 = 1 - 5%	Abundance Codes (ABD) 1 = 6 - 25% 2 = 26 - 50%	3 = 51 - 90% 4 = > 90% Blank = not evaluated

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STREAM CHARACTERISTICS RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
- 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).
- SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
 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.
 - STREAM WIDTH Record the average width of the stream study section from water's edge to water's edge to the nearest whole foot.
 - CHANNEL WIDTH Record the average width of the channel, or streambed (bank to bank) to the nearest whole foot.
 - MAX DEPTH Enter the maximum depth of the water at the site to the nearest tenth of a foot.
 - MEAN DEPTH Enter the average depth of the water at the site to the nearest tenth of a foot.
 - MEAN DEPTH METHOD Enter the appropriate code from the list below.
- 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.
 - 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. SECTION LENGTH Record the length of the site to the nearest whole foot. 2. €

 - -OCITY Record the average veloctity of the stream through the site to the nearest tenth of a foot per second. VELOCITY METHOD - Enter the appropriate code from the list below.
- DISCHARGE Record the average discharge volume through the site to the nearest hundredth of a cubic foot per second.
 - DISCHARGE METHOD Enter the appropriate code from the list below. <u> 7</u>
- POOL LENGTH Record the total, summed length of pools in the section to the nearest whole foot.
- QUALITY Enter "Y" if the pools at the site can $ar{ extbf{b}}$ considered as high quality trout habitat
- WATER TEMPERATURE Record the water temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- TEMP UNITS Record "F" if temperature readings are recorded in Fahrenheit or "C" if they are recorded in Celsius. Ail temperature readings recorded on this sheet should be in the same units. AIR TEMPERATURE - Record the air temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows. 17. 18. 19. 20.
 - DISSOLVED OXYGEN METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C). DISSOLVED OXYGEN - Record the concentration of dissolved oxygen at the site to the nearest tenth mg/l. 23.
 - pH Record the pH of the water at the site to the nearest hundredth.
- pH METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C). 25. 26.
 - TOTAL ALKALINITY Record the total alkalinity of the water at the site in tenths of mg CaCO₃
- TOTAL ALKALINITY METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectyp C) 27. 28. 29.
 - CONDUCTIVITY METHOD Record the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C) CONDUCTIVITY - Record the conductivity of the water at the site to the nearest µmho/cm³.
 - ELTER GRADE Enter the appropriate code from the list below.
 - SHELTER DESCRIPTION Briefly describe the shelter present in the stream. COVER GRADE - Enter the appropriate code from the list below. 31. 32. 33. 35. 36.
- COVER DESCRIPTION Briefly describe the cover present over the stream.
- EGETATION ABUNDANCE Enter the appropriate code from the list below.
- VEGETATION DESCRIPTION Briefly describe the aquatic vegetation present in the stream.
- 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 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.
- 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. 38.
 - INSECT FORAGE Enter the code that best describes the abundance and availability of insect forage.
 - ALGAE Enter the code that best describes the abundance of algae on rocks at the site.
- LEAVES PRESENT Enter the code that best describes the abundance of leaves on the bottom of the stream.
 - MINNOWS Enter the code that best describes the abundance of minnows smaller than 2.5" in the stream.
 - WEATHER Enter the appropriate code from the list below.
- RAIN 48 Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours. 54.4.4.6
- STREAM CHARACHTER CODES, BANK DESCRIPTION CODES, BOTTOM TYPE CODES, ABUNDANCE (ABD) CODES Enter the appropriate codes. Up to three codes may be selected.

THOD CODES	Salt slug Velocity meter, cross sectional area measured Visual estimate Other method, explain in Comments
DISCHARGE METHOD CODES	Direct measurement of discharge Dye method Float used to estimate velocity, cross sectional area measured for discharge Gauge readings and conversion charts Salt brick
VELOCITY METHOD CODES	Float method - 1 Salt slug method - 2 Velocity meter - 7 Visual estimate - 8 Other, see Comments - 9
MEAN DEPTH METHOD CODES	Derived from discharge Mean of Thalweg measurements - 2 Mean of cross sectional transects - 3 Visual estimate - 8 Other, explain in Comments - 9

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INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

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Revision Date: 7/96

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POND NUMBER WATERSHED INDEX NUMBER (STREAMS ONLY) NAME OF WATER Bice h エ WATERSHED CODE

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e 10				CONDUCTIVITY				21 - 40%; 3 = 26 - 50%; 3 =	oderate; L	∑ ∨	Bott Bott Bott Blan Blan
10 N	(MM/DD/YY)	GRADIENT	AIR TEMP	COO				-20%; 2 = 21 -25%; 2 = 26	= High; M = Moderate; L = Low; N	LEAVES PRESENT?	YPE and ABUNDANCE C Bottom 2 ABD 2 Cobble - CO Boulder - BO Bedrock - BR Clay - CL Concrete - CT Abundance Codes (ABD) 1 = 6 - 25%
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NAME /	DATE	метнор В	WATER TEMP	METHOD				- Percentage of the stream study section that provides instream shelter (rocks, boulders, undercut banks, etc.): - Percentage of the stream study section covered by overhanging objects (brush, tree branches, bridges, etc.): - $N = None$; $0 = 1 - 5\%$; $1 = 6 - 25\%$; $2 = 26 - 50\%$; $3 = 51 - 90\%$; $4 = >90\%$; $Blank = not evaluated$	CROTS VARIABLES 	ALGAE ON FOCKS?	00 W
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	355 "P	8 🔝	МЕТНОВ		NOITAIE	NOIL	VEGETATION DESCRIPTION	of the strea of the strea of the strea	Enter Y for present or N for not present, if evaluated.	SIMULIIDS & HYDROPSYCHIDS?	STREAM CHARACTER CODES N Polician DY Slow - DP Stagnant - PA Swampy - FA Swampy - FA Swampy - FA Tidal - MD Torrent - SA
CHAF C Bureau o	354 Revision Date: 4/95	STREAM WIDTH	YTIO I	метнор	SHELTER DESCRIPTION	COVER DESCRIPTION	ATION DE	ercentage ercentage I = None; 0	present or	SIMULIIDS HYDROPS	M CHARA S DP S FA S FA S SA
FREAM NYSDE	Revis	STREAL	VELOCITY		SHELT	COVER	.		inter Y for p		STREAM Dry Dry - Pools Fast Low - Flow Moderate Salty
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STREAM CHARACTERISTICS RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
- 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).
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
- 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,
 - STREAM WIDTH Record the average width of the stream study section from water's edge to water's edge to the nearest whole foot.
 - CHANNEL WIDTH Record the average width of the channel, or streambed (bank to bank) to the nearest whole foot.
 - MAX DEPTH Enter the maximum depth of the water at the site to the nearest tenth of a foot.
 - MEAN DEPTH Enter the average depth of the water at the site to the nearest tenth of a foot.
 - MEAN DEPTH METHOD Enter the appropriate code from the list below.
- 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. Ö.
 - 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 SECTION LENGTH - Record the length of the site to the nearest whole foot

 - VELOCITY Record the average veloctity of the stream through the site to the nearest tenth of a foot per second. VELOCITY METHOD - Enter the appropriate code from the list below.
- DISCHARGE Record the average discharge volume through the site to the nearest hundredth of a cubic foot per second.
 - DISCHARGE METHOD Enter the appropriate code from the list below.
- POOL LENGTH Record the total, summed length of pools in the section to the nearest whole foot.
 - QUALITY Enter "Y" if the pools at the site can be considered as high quality trout habitat.
 - WATER TEMPERATURE Record the water temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows. 12. 14. 15. 17. 18. 19.
 - TEMPERATURE Record the air temperature at the site in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- 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. DISSOLVED OXYGEN - Record the concentration of dissolved oxygen at the site to the nearest tenth mg/l. 23.53
 - DISSOLVED OXYGEN METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C).
 - pH METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C). - Record the pH of the water at the site to the nearest hundredth.

 - TOTAL ALKALINITY Record the total alkalinity of the water at the site in tenths of mg ${\sf CaCO_3/I}$
- TOTAL ALKALINITY METHOD Enter the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectyp C). CONDUCTIVITY - Record the conductivity of the water at the site to the nearest umho/cm³.
 - CONDUCTIVITY METHOD Record the appropriate code from the list on the back of the WATER CHEMISTRY RECORD (Rectype C) 39.
 - TER GRADE Enter the appropriate code from the list below. SHEL
 - SHELTER DESCRIPTION Briefly describe the shelter present in the stream.
 - COVER DESCRIPTION Briefly describe the cover present over the stream. COVER GRADE - Enter the appropriate code from the list below. 33.
- VEGETATION ABUNDANCE Enter the appropriate code from the list below.
- VEGETATION DESCRIPTION Briefly describe the aquatic vegetation present in the stream.
- 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. 36.
- 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. SIMULIDS & HYDROPSYCHIDS - Enter "Y" if the stream supports abundant simuliids and/or hydropsychid caddisflies associated with a lake outlet, or "N" if it does not
 - INSECT FORAGE Enter the code that best describes the abundance and availability of insect forage.
 - ALGAE Enter the code that best describes the abundance of algae on rocks at the site. 6
- LEAVES PRESENT Enter the code that best describes the abundance of leaves on the bottom of the stream. 45
 - MINNOWS Enter the code that best describes the abundance of minnows smaller than 2.5" in the stream.
 - WEATHER Enter the appropriate code from the list below.
- RAIN 48 Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
- STREAM CHARACHTER CODES, BANK DESCRIPTION CODES, BOTTOM TYPE CODES, ABUNDANCE (ABD) CODES Enter the appropriate codes. Up to three codes may be selected.

DISCHARGE METHOD CODES	Salt slug Velocity meter, cross sectional area measured Visual estimate Other method, explain in Comments
DISCHARGE ME	Direct measurement of discharge Dye method Float used to estimate velocity, cross sectional area measured for discharge Gauge readings and conversion charts 4
VELOCITY METHOD CODES	Float method . 1 Salt slug method . 2 Velocity meter . 7 Visual estimate . 8 Other, see Comments . 9
MEAN DEPTH METHOD CODES	Derived from discharge Mean of Thalweg measurements - 2 Mean of cross sectional transects - 3 Visual estimate Other, explain in Comments - 9

Salt brick

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INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

Revision Date: 7/96 Coded

Sheet

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Coding Instructions. See Data Dictionary for detailed information. BULK CATCH DESCRIPTIVE DATA RECORD

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
- 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). 9 %
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
- NET/RUN NUMBER The number that corresponds to the electrofishing run, trawl run or seine haul during which the fish described was caught.
- 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. 4. %
 - 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. ø.
 - 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.
 - MAXIMUM LENGTH Enter the total length of the largest fish in the collection, in millimeters.
- MAXIMUM LENGTH Enter the total length of the largest fish in the collection, in millimeters.
 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
 - STAGE Enter the appropriate code from the list below. this field for every species recorded
- TOTAL WEIGHT Enter the combined weight for all of the fish captured, when weighed as one single sample. Record weights in grams. 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
- 4.
- 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. NUMBER IN SUB-SAMPLE If the catch is divided int sub-samples, record the number of fish in the sub-sample. This line of data MUST refer to the sub-sample only.
 - COMMENTS Enter "Y" if a comment record (Rectype CO) relating to a BF record for this survey, date, site, nevrun, and species has been completed. 5.

SOME COMMON SPECIES CODES & SPEED CODES

USING the BF RECORD for WHNF "N" CALCULATIONS STAGE CODES

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:	תיים שני שני שני שני שני שני שני שני שני שני	123 (23)	- 1.6) 062 -	086 -		(ui n'n7 <) nnc <		(No.		A .	sured . B	٥,	of the frequency classes - D (Use with CROTS surveys only)	щ	s estimated . F	ents estimated • G	forms - H
Adult · AD	Hard, green - HD	Immature - IM	Older . OL	Ripe, gravid, unspent - RP	Smolt - SM	Spent Sp	Young of the year - YY						•	VALIDITY CODES		Fish caught, counted, and measured	Fish caught, counted, smallest and largest measured	Fish caught, counted, measurements estimated	Fish caught, counted, measurements reflect length frequency classes	Fish caught, numbers estimated, smallest and largest measured	Fish caught, numbers estimated, measurements estimated	Fish observed, numbers estimated, measurements estimated	Bulk weight of individual fish recorded on the IF forms
601; LMB	865; MS	348; MSK	347; NP	596; PS	335; RSM	326; RT		589	345	591; RB	866; SS	600; SMB	332	577		579	350	333	626; PP	575; WP	419; WS	617; YP	
Largemouth bass .	Mottled sculpin -	Muskellunge -	Northern pike	- Pumpkinseed	Rainbow smelt	Rainbow trout	Redbreast sunfish	X Pumpkinseed	Redfin pickerel	Rock bass	Slimy sculpin -	Smallmouth bass -	Splake -	Striped bass	Striped bass	X White bass	Tiger musky	Tiger trout	Walleye	White perch	White sucker	Yellow perch	
- 289; AL	- 276; AME	- 327; LLS	- 531; KF	- 603; COB	- 402; BND	. 285; BLU	- 598; BGS	- 329; ST	- 444; BB	- 328; BT	- 445; CHC	- 349; PKL	. 322	- 320	- 365	- 385; CSH	- 406; CC	- 407; FF	- 294; GIZ	- 377; GS	- 346	- 330; LT	
Alewife	American eel	Atlantic salmon	Banded killifish	Black crappie	Blacknose dace	Blueback herring	Bluegill	Brook trout	Brown bullhead	Brown trout	Channel catfish	Chain pickerel	Chinook salmon	Coho salmon	Common carp	Common shiner	Creek chub	Fallfish	Gizzard shad	Golden shiner	Grass pickerel	Lake trout	

Other, explain in comment records

STREAM SURVEY

Submitted upsrade to 1873

Name & Key of Stream	Birch Creek (52-171LH)	Quality Classification & (7)
Section Entire	Mileage (Section)	Mileage (Entire) 6-8-mi
County(s) Ulster		Shandaken
Quadrangle(s) Shandaken, West	Ki11	
Watershed Lower Hudson	son Date 7/3/80	Authority Wm. H. Kelly
Previous Stocking		
Postage Mileage (Section)	Posted Mi	Posted Mileage (Entire)
Accessibility (Section)	Accessibility (Entire)_	(Entire)
Trout inhabited area (Section)_		Trout inhabited area (Entire)
Special features (dams, fa	Special features (dams, fajls, pollution, dredging, erosion, etc.)	
Wite Hatch	in st williams	Station I were hom
experimento	I stehny conte	in in the year, WPE
(note gan	Peresal Communica	tie 9/13/84)

Station Location	Upper	(3)	Middle (2)	Lower (1)
Average Width (Actual)			10.5(7)	21(40)
(Normal)		·		0.7(3.0)
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	Α.	w.	64 A. 54 W .	77 A. 65 W.
Time-Weather			11:30AM Fair	2:40PM Fair
Habitat % Pool	%	G.	H=2 % G.	H=2 % G.
Shelter Cover				
Fertility Forage Soil Type		-	F=1	F=2
Wild Trout (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

Q,

								100	; }				•)				
Stocking	180B.T.	6 G	Dry* none			180B.T.		200B.T.			Not seen	1										
Cover	fair	400 gas	fair			good	49 e	Rood			- 4.											
Bottom C	Regr	0 %	Rckgr	; ;()	.91 -11 -11	sand	0 0 0 1 0 1 0 1	Bo & R														
Time and weather	2:15 010		2:35 clo	¥.		2:45 clo	(2:50 clo		SI	b b	MAS.	<u>.</u>	1	1935	009) i {					
Water	99		58.5	go dry.		53	0(193	53	·il-	()	3	rî.f.) .	73.17		7661	1600	31.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	n to	ey eg	/	
Air	₹79	け	79	ed to		₹79	,	79	111	49	00	.e.s.	1.1.	11	1933	450		(T)	23.5	1	[, ()	
1 Food 1	2 -II:	1. 1. 1.	17.41.	Reported) <u> [</u>	Tü	(1931;)	orie	; (OC	n- 2"-6"	ن ا.	700 700 3	135	300	1932 1			111 124	13 C3 4\	3	i	
Pools	ゲン	ue	pm cf	oad.		ပ H	. 1200(1	B.f.	. 9 *.	it see	4	ال د 	1934	800	1931		Mt.	, ii s	o i	J	1.13	
Flow	gcts	Trout seen	3# 25gpm	below road.		200gp	B.T.fing.	'lofa	. , .	Trout			H		1,	7.						
Width and depth	2'8'x2#	•	2.4°x1"3"	dry b		0.6m1.4'5'x2"6"200gpm C	Bk. B.	4.10'x6"2'lefs		18 Bk.*			stocking B		stocking	B. H.			.•			
Length	1.9m1.	Smith Bk. 7	1.3m1.		φ.	0.6mt.	Hollow	2.0m1.	# C	Crystal Spring	0.5m1.) e	Previous st	en t					(F - 4)	Mark Control		
Tributary	1 mth.	Ike Sr	2 mth.		:	3 mth.	Giggle	4 a bove2 Omi	mth.	Cryste	1-4	*	Prev		4Prev1ous	- September 1						

A CONTRACTOR OF THE CONTRACTOR

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		Sec. 1.		1-4		SI	य
		V D	,	.	•	1: 14 - 16 - 1	. 1
Height		(p) (i)		e iga waa daa sa Amara	- 4 U • - \$4g	1 -	am ool
Area and depth of pond		Ö				1, 2	
Pollution Location of outflow		yy		61.2	grasion and a second	.* · · '\$	
Nature, extent, index organisms				0 0 0	Ö Q	1 m	Abre . 100 100
Character of region		•		good from	bed- cover- over-	rock	wide bed- cover.
				nang:	ing tre	3 6 5.	g sweets to the state of the st
Posted area:				8	do Co		
Section of stream Bet	WAAn	hae fm	m2	Ç,		Mileage	0.5
	C			• •	•	• •	
Owner's name and address	ss Mo	lyneux &	t oth	ier p	osting	by Ja	mes
Vredenburgh	.			(C)	e e e e e e e e e e e e e e e e e e e	. V'};; ; • *	Latin L.
<u>}</u>	1 1 14	: ,	•	فريك الموسح			
Miscellaneous (1)31		being co	nsti	ructe	d here	4.	yet
holding water			. <u></u>	5	<u> </u>	ar Gziji	
18' dam 100) yds	. above	TB.	Temp	. belo	w this	dam-
air 640-water	640	- trout	repo	mtad	here-	pond 1	O acres
•	to the	, . ,		TOOM			
(2) Pa	haited	0.2 mi	, abo		: .		
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			here	ove T	4-no n	ame. E	xcel-
			here	ove T	4-no n	ame. E	xcel-
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lent looking		t water	here	ove T	4-no n	ame. E	xcel-
		t water	here		4-ho n	**************************************	co
lent looking Water suitable for:	trou	t water	here		4-no n	**************************************	xcel-
lent looking	trou	t water	here		4-ho n	**************************************	co
lent looking Water suitable for:	trou	t water	here		4-ho n	**************************************	co
lent looking Water suitable for: S. T. Partially	trou	t water	here		4-ho n	**************************************	co
Water suitable for: S. T. Partially B. T.	post	section ed, 500	here		Mileage O.R.T.	**************************************	co

	entropy of the first the second second			
Name of species	Abun- dance	Seine	Gill net	Number and description
Cottus cognatus	C			10 juv-ad
	c/			2-10" t1 }
Salmo fario	0,5		1	
	1.1			4 yg-juv=31,33 %
				105,118mm.
				(saved)
		στ	ner	siseen
Rhinichthys a.stronasus	c/			4 ad
Rhinichthys cataractae	; ::C-	770		l ad
Catostomus c.commersonnii				l ad. seen
				•
con apparent and Cat No.	458-1	62,	inc	្នុះសេខជន្លាំ
	S	**	1	1 3 Hz 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
(2000) +307\$ WW.	‡ (€3°1). *	06.5	3 0 0	h cover (Hooks
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			-	1:89-73:00
				72, 7500
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the state of the s			•	
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The state of the s		10/10/11		dr. v ver morred his
ne de la fille de la Maria. Maria (1888)	4 4 4 4		1	TI NSI
A STANDARD OF THE STANDARD OF		okiej	1	deop - Telephone
				en en en en en en en en en en en en en e

Req. 356. FG9Je38. 6-13-38-10,000 (16-9943) Survey	ower Hudson
Drainage Hudson Coll, 1	10 M.A.Hall #21
Locality T52 (Birch Cr.) of H171(Esopus Cr.) at mouth at
Big Indian, N. Y.	
County Ulster Quadrangle Phoeni	cia Elevation 1200
Water clear; white Flow.	
Vegetation Some algae	
Bottom sd.r.gr.bo Curren	nt mod.
Shore. Wooded: houses Distant Temperature: Air. 782 F Water. 622 F.	ce from shore shore to shore
Temperature: Air. 78 2 F Water 62 2 F	Time
Depth of captureDepth	of water 0-1' to 5' in pool
Method of capture. 6 seine	
	Date June 17, 1936
* • • • • • • • • • • • • • • • • • • •	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?

The second of the second

Cunso nder

1593.2

<u> </u>				
Name of species	Abun- dance	Seine	Gill net	Number and description
Name of species Salmo fario	c/	·		2 retained juv. 97 & 111 mm
				Several Release no.
Company of the Compan				1 - 10 in t.1. 2 - 9 in t.1. 2 - 8 in t.1. 2 - 4 in t.1. 1 - 5 in t.1. 2 - 3 in t.1.
Several ot december of the second to the second sec	oan s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	776	Alega it alega
Good brown to rather small stream for fair. Food shot: stone; stone; or nymphs. Ordole & be-	Dig.	DIO:	1,3	Les, leta, sign.
Cat. No. 45	1 & 4	52	iı	1C.
6. seine U.stone:M. Hall				
wooded; village.	908		1	ense por para la
g cycli wytes	se aju	(46 ·	***	
Hudgon C52 (Birch Cr.) of HILL, N. Y., 1/8 mi. a	HIAIY	(130) (11)	19 Eq.	Waser Or.) of Pine
		With the second	<u> </u>	and and an analysis of the second

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
H111, N. Y., 1/8 mi. above mouth of T4
County. Ulster Ouadrangle Phoenicia Flevation 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 to shore
Temperature: Air 71 F Water 56 F Time 11 AM Weather Clear
Depth of captureDepth of waterDepth of water
Method of capture 6 seine
Collected by U.Stone: M. Hall Date June 17, 1936
Orig. preserv. 10% form. Ceneral notes: History 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.

10 Terreral Meleaned
20 - 10 In 1.1.
2 - 9 in 5.1.
2 - 8 in 5.1.
2 - 4 in 5.1.
1 - 9 in 5.1.

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Bond & Tasker Sept.3,1936

1/2mi. from

Region Station Width Flow Velocity Color Turbidity Air temperature Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies Stoneflies	28 M1 	Upper .mth 5cfs		Mid 15 x4 12 cfs		Lower 15'25'x4"1'
Flow Velocity Color Turbidity Air temperature Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	1 47 1 7 10 1 7	(# 12 21	20 C	la cfs		
Velocity Color Turbidity Air temperature Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	1 47 1 7 10 1 7	(# 12 21				11
Color Turbidity Air temperature Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	1000 mm	<u> </u>	# 500 # 504 # 5	35 20		la cfs
Turbidity Air temperature Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	\$ - \$C	Ž.		mod-to	rapid	d moderate
Air temperature Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies			, p	clea	r	clear
Water temperature Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	- 			whit	е	white
Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	6	7	N. C.	640		650
Hour and weather Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies	4 6	2		550)	620
Altitude Pools: size, type, frequency Pool grade Fish Food: Mayflies Stoneflies	11:1	0 ha	zу		10	2:05 clo.
Pools: size, type, frequency Pool grade Fish Food: Mayflies	1,14			155		1300
Fish Food: Mayflies	17.7	Çi		2-2	:-1'	3-3-2
Mayflies Stoneflies	(d)	Ç.		В		c/
Stoneding • Color	j. 7	Ç		ec)M _{.o}	com/
	-	* 1.			proje	com
Caddisflies	poles	Ŝ		fe	∍ ₩	few
Blackflies 😅 🧠 👵	•	¥ 45		oc.	om 😤	Few
Midges	\$27			fe	3W,	com
Shrimp	13. C				•	
Minnows : Co	<i>1</i> ²					
Other forage	I P C	,	हुत्व के सम्बद्ध सम्बद्ध	1-8 (G) 1-17 1-17 1-17 1-17	22 (323)	
			· · · · · · · · · · · · · · · · · · ·			
Food grade	Marian Francis Salad	1-3	99		II	II
Bottom composition		ř.	ုဂ္ဂ		& R	rubble
Vegetation	0 1			\$	\$ 1.00 miles	
Springs Location						
Flow and temperature				-1		
Dams and Falls Location		· · · · · · · · · · · · · · · · · · ·				O.1 mi.bel

equi .im	1/2	• 36 6	gasag L o 1,	na ear	157	
1593	7m 4 0		retvill	1936	Cat. No.	
7Ap 37 Re 20 c c c c c c c c c c c c c c c c c c c	%o rapid	Town Shanda ken .	Quadrangle Margaretvil	Date June 24.	uth of T4-Cat. 452, inc. 458-462, inc.	1935
5000 FG-2 INT	1 to 1 to 2 to 2 to 3 to 3 to 3 to 3 to 3 to 3	ີ່ ດ Town Ω	Quadran	\Q	S S	1934
NEW YORK STATE CONSERVATION DEPARTMENT	(5) (1)	3:0:	v, ; o	62 :10 h	above h-Cat.	1933
TON DE	H111-S			Bond	1,1/8mi. above at mouth-Cat.	1932
TE CONSERVATION STREAM SURVEY	(Pine Hill		ar i a	Downs &	-H171,1/8mi	1930
NTE CÔN STREAD	rer con de C			thority D	h Cr.)	1929
ORK STA	rch Cr	'er		A	20-T52(Birc 21-T52("	1928
NEW YO	52(Birch	on Riv	nospnj		20-T52(21-T52(1927 700 4200
II əlddun	e of stream	171-Hudson River	Lower Hudson	Uster iii. See	1.Hall	1926 700 3000
	and nam	y to		stoc	Co]	80
ofed.in [.0	Number Section	Tributary to.	River system	County Previous	Remarks:	S.T.fing. S.T.fry

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	9 P	(NSA)	Dry, none	Small, none	_										
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	Stocking Policy	BI	D.	Sm	#=	==								٠	, 1
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Location	Station	·			급		1								
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Recommendations: Fishing rights, improvement, spearing, commercial bait, set lines or other:

Posting Notes

Miscellaneous:

Stocking Policy:

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

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

Salmo trutta 90

H N M

W = 1549

BT - NSA

		123	130	45
7 田)	. abv. T-3		lus	ctae
(52-17	0.5 mi	e e e e e e e e e e e e e e e e e e e	atratu	catara
BIRCH CREEK (52-171 HR)	Section #3 0.5 mi. abv.T-3	Salmo trutta	Rhinichthys atratulus	Rhinichthys cataractae
	ശ്ശ	മ്	超	呂

Exoglossum magillingua

BIRCH CREEK (52-171-HR)

2	72
mouth	
Section #1,0.5 mi. abv.	Salmo trutta
ഗ	മ

Salmo gairdnerii 12 Cottus sp. 190

jottus sp.

Rhinichthys cataractae... 81

Rhinichthys atratulus ... abdt. Exoglossum maxillingua ... 37

Catostoma commersonnii....

M M H H

W = 290 BTF/acre

BT (NSA)

(OVER)

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	orang kanang kanang kalang kanang		Company of the state of the sta
1.5 mi.abv.T-4 C	.5 mi.abv.T-3	0.2 mi.bel.T-2	0.5mi.abv.mc
Station Location6! (3-10) Upper (3)	Middle (2)	Lower (1)
Average Width (Actual)	141(12-29)	13'(12-18)	10'(3-15)
(Normal)			
Depth 4"(2-8")	4n(2-8n)	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. g	Bo,R.,Gr.
Temperature 66A. W.56	69 A. W. 63	69 A. W. 64	60 A. W53
Time-Weather12:00 Clo.	11:30 Clo.	11:00 Clo.	9:00 Clo.
Habitat % Pool 10% G1 Shelter 7	1 10 % G. 1	2 70% G . 2	2 20 % G.2
Cover	1 1	1 1	i
Fertility 1 Forage 2 Soil Type 1	2 2 1	2 2 1	2 3 1
Wild Trout (F) NSA No. per Acre 1549 BTI Acre	NSA 7/1089 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 3001 Section (feet)	3001	3001	3001

NEW YORK STATE CONSERVATION DEPARTMENT STREAM SURVEY

Name & Key of Stream Birch Cr.	or Fine Hill Stream (52-171HR)	7.HR)
Section E.	Mileage (Section)Mil	Mileage (Entire) 6.8 mi.
County(s)Uster_	Town(s)	Shandaken
Quadrangle(s) Phoenicia and Margaretville		
Watershed LH	Date 27 Aug. 1956 Au	Date 27 Aug. 1956 Authority Gould and Saladino
Previous Stocking		
	•	
Postage Mileage (Section)	Posted Mileage (Entire)	Entire)
Accessibility (Section)	Accessibility (Entire)	
Trout inhabited area (Section)	Trout inhabited area (Entire)	(Entire)
Special features (dams, falls, pollution, dredging, erosion, etc.)	on, dredging, erosion, etc.)	

FISH COLLECTION OR SMALL STREAM SURVEY

Station 1

Survey Lower Hudson Date 7/3/80 Authority Wm. H. Kelly
Name and key Birch Creek (52-171LH) Quad Shandaken Lasher Road
Station location 0.5 mi above mouth County Ulster
Length 300' Width 21' Depth 0.7(3.0) Acres 0.15
Flow 26 cfs Temp: A 77 W 65 Time (EST) 2:40 PM
Gear 230 VAC Generation Efficiency (************************************
Xoung trout per acre (adjusted total) 860
Factors: 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 fings collected or seen. One RT fing (1.5" collected). March flood may have restricted BT spawning success. pH=7.0 M.0.=21ppm D.0.=10ppm
Specific Conductivity = 13 mmhos

Stocking policy:

LE HINTER HER BEREIN BE

NSA 8: RT, BT

94-14-7 (5/76)

Formerly FW-88

Abun- dance	Number and description
	18(3.8-9.9") 1.4 lbs
	13(4.2-11.6") 2.9 lbs
	3(8.0-9.6") 0.9 lbs.
••	4(8.7-13.8") 2.6 lbs
	7(6.5-11.6") 2.2 lbs
	30(2.0-3.4") 0.3 lbs
	3(2.8-3.5") trace
	2(4.2, 4.7) 0.1 lbs
	5 (3.8-4.3") 0.1 lbs
	:
	-

FISH COLLECTION OR SMALL STREAM SURVEY

Station 2

Survey Lower Hudson Date 7/3/80 Authority Wm. H. Kelly
Name and key Birch Creek (52-171LH) Quad West Kill
Station location 0.5 mi below T4a County Ulster
(17) Length 300' Width 10.5 Depth 0.4(1.5) Acres 0.07 EDT
Flow 2.9 cfs Temp: A 64 W 54 Time (EST) 11:30AM
Gear 230 VAC Generation Efficiency (yg trout) 25%
Yvoung trout per acre (avalitistististististist) 1600 BT + 440 ST
Factors: W_NSA_N_3H2F1Total_NSA_6
General notes: Only trout were collected. No other species observed. Typical headwater wild trout environment. pH=7.0 D.0.=9ppm

Specific Conductivity = 25 mmhos

Stocking policy:

94-14-7 (5/76)

		•	
1			
	Abun-		
Name of species	dance	Number and description	
Salmo Trutta		29 (3.2-7.7") 1.95 lbs	
Salvelinus Fontinalis		8 (4.0-5.8") 0.45 lbs	

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NEW YORK STATE CONSERVATION DEPARTMENT STREAM SURVEY

dame & Key of Stream LOST	T CLOVE (53-171 HR)	
ection Entire	Mileage (Section) 1.5 mi.	Mileage (Entire) 1.5 mi.
County(s) Ulster	Town(s)	Shandaken
Auadrangle(s) Phoenix		
Vatershed Lower Hudson	Date 8/27/57	Authority J. Gould, J. Saladino
revious Stocking		
ostage Mileage (Section)	Posted Mil	Posted Mileage (Entire)
Accessibility (Section)	Accessibility (Entire)	Entire)
rout inhabited area (Section)	Trout inhabited area (Entire)	area (Entire)
pecial features (dams, falls, pollution	ion, dredging, erosion, etc.)	

Station Location	Upper	(3)		MId	ule	(2)		Lower (1)
Average Width (Actual)						-		5 (3-12)
(Normal)								11
Depth			t .					4 (2-8)
Volume								0.5 - 1 CFS
Velocity			<u> </u> .					Slow
Color							4	Wh.
Turbidity								• • • • •
Altitude							: /	1220
Bottom					,			Bo, R, Gr.
Temperature	A.	W.		A	•	₩.		76 A. W.
Time-Weather						2.		2:00PM-Pt.Cl
Habitat								2
% Pool Shelter	%	G.		9	6	G.		76 % G.
Cover							*	2
Fertility Forage Soil Type			1.5				•	2 2 1
Wild Trout (F) No. per Acre			1					522 NSA
Trout: Non-Trout Estimate by Weight								-
Shocker Efficiency Adjusted No. per Acre								90%
Length of Shocker Section (feet)			*	1				3001
						 1	1	
						, . 		
		*.						
	I .		T-					
			•,				•	

Section #1, 0.1 mi. abv. mouth

Cottus sp Abw	bundant	•	M	4
Rhinichthys atratulus	-	BT (NSA)		
Salmo trutta	19			
Salmo gairdnerii	15			
Rhinichthys cataractae	-			
Salvelinus fontinalis	4			

Posting Notes

Miscellaneous:

Entire, 1.5 mi., BT (NSA)

Stocking Policy:

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

Posting Notes

Miscellaneous:

Stocking Policy: Entire 6.8 miles, BT, RT, ST,NSA

,	and the second								
Stocking Policy								9	
Weather Time									
Temp Air Water									
Fer-									
Hab- itat									
idon- Trout									
Yg. Trout					9				
Flow	·			·					
Width									
Length			·						
Location Station			-						
Trib. No.						·			

HALLITENSTRUCKSKRETKJUNGSKRUCKSTUNGSKRETERREKELERKUNDSKRETARA POTOKOLINA

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 Town: SHA	JUST UPSTREAM NDAKEN	OF T3 Cnty: Ulster	Quad: WEST	KILL	1.9	
2	11/09/93 Town: SHA	50 FT UPSTREAM NDAKEN	OF UPSTREAM Cnty: Ulster	OF SITE 1 Quad: WEST		1.9	
3	11/09/93 Town: SHA	50 FT UPSTREAM NDAKEN	OF UPSTREAM Cnty: Ulster	OF SITE 2 Quad: WEST		1.9	

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:

Surface Conditions:

Methods - Dissolved Oxygen: Hach kit

Hach kit

pH:

Total Alkalinity: Hach kit

Conductivity: Presto-tek model DP 03

Sample Depth	Wat Temper	_	Dissolved Oxygen		Total Alkalinity	Conductivity	Pt-Co
(ft)	c	F	(mg/l)	pН	(mg CaCO3/1)	(umhos)	Color
.1			10.0	6.30	13.7	80	

Date: 11/09/93

Time start: 1515

Time stop:
Air temp:

C Weather: Clear

Pain 48:

Site #: 3

Ft Color:
Turbidity:
Surface
Conditions:

Methods - Dissolved Oxygen:

Total Alkalinity:

Conductivity: Presto-tek model DP 03

Sample Depth		ter rature	Dissolved Oxygen		Total Alkalinity	Conductivity	Pt-Co
(ft)	c	F	(mg/l)	pН	$(mg\ CaCO3/1)$	(umhos)	Color
.1						143	

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 F

Time stop: On-time:

AC/DC:

1125 .33 hr Air temp:

Rain 48:

Conductivity: 80 umhos

Weather:

Method: Presto-tek model DP 03

DC

Pulse rate:

Amperage:

Voltage:

350

of units: 2 # of DC wands:

ft

of scappers: 2

Brail length:

Flow: Gear employed against the current

Waveform:

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 1230 Water temp: Air temp: С С

F F

Time stop: On-time:

.41 hr

Weather:

Rain 48:

AC/DC:

DC

2

Pulse rate:

Voltage:

350

of units:

of DC wands:

of scappers: 2

Brail length:

ft Flow: Gear employed against the current

Waveform:

Amperage:

Target: Trout, all

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

50%

NYSDEC Bureau of Fisheries

File #: 1593 Survey Report

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:

F F

Time stop:

1500

Air temp:

On-time:

.83 hr

Weather:

Rain 48:

Conductivity: 143 umhos

Method: Presto-tek model DP 03

DC

Pulse rate:

Amperage:

AC/DC:

Voltage: # of DC wands:

350

of units: 2

Brail length:

of scappers: Waveform:

Flow: Gear employed against the current

Target: Trout, all

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

50%

Lower Hudson watershed

BIRCH CREEK

File #: 1593

Survey #: 393049

)					Zon Tag	7 " T	0 F O C C C		
		In	Individual	H	Infor	matio	п		 				
ָרָ ניי ביי	Milmhor	1000	T on (+1)		{		* *	******* Number of Occurences	ber o	f Occ	urence	****	*
	Caught	Min	Max	Min Max	Max	Com	Wild	Stage	Sex	Age	ma Appl	marks 1 Pres	Pan
			 	! ! ! !	1	!!!	1		1				!
Date: 11/09/93	Site #:								•				
RAINBOW TROUT BROWN TROUT	30	67	197							~			
Date: 11/09/93	Site #:	8											
RAINBOW TROUT BROWN TROUT	84	62 84	326 426	130	450	•				12			
Date: 11/09/93	Site #:	m								•			
RAINBOW TROUT BROWN TROUT	17 6	67	151										

File #: 1593

BIRCH CREEK Lower Hudson watershed Survey #: 393049 -----

Bulk Fish data

Fish Number Length (mm) Total Pan Caught Min Max Weight(g) Stage Sex Species #

Date: 11/09/93 Site #: 3

Net/Run #:

FISH CAUGHT, COUNTED, MEASUREMENTS ESTIMATED

RAINBOW TROUT

87 60 150

BROWN TROUT

12 60 105

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/ Survey # Site # Watershed 389007 1 LOWER HUDSON

10/06/1989 *

File #

1593

*** See Comments ***

Survey Purpose : TRAP AND TRANSFER

Authority : PIERCE

*

Watershed Index Number

Water Class: B(T)

H-171-52

=== Site Description ===

DOWNSTREAM END STARTS 0.1 MI ABOVE T3

=== Map References ===

County : ULSTER

Township : SHANDAKEN

Quadrangle : WEST KILL (1960 USGS)

Altitude (ft) 1410

NYTME

NYTMN

RMI RMI Up Stream Length (mi)

05435 47637 2.1 2.4 6.5

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

Survey #: 389007 Site #: 1

10/06/1989

Weather: CLEAR Time: 1000

=== Section Desc. ===

=== Flow ===

Section Length (ft): 1700 Stream Width (ft): 15

Max Depth (ft): 1.5 Mean Depth (ft): .5

Channel Width (ft): 15

Conductivity:

Gradient (ft/40 ft drop): 2000 Pool Length (ft): 85

Velocity (fps): 2.0

Discharge (cfs): 10.0

=== Methods ===

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

=== Stream Character ===

=== Bank Description ===

FAST 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

Su	Summary Statistics f rvey #: 389007 Si			ecords == /06/1989	and guide singer games colors and guide singer saudio colors	
Species	Number Caught		Max mm (in)	•	n SD mm (in)	
Gear Type: BACK Effort: 2.00 (h	PACK SHOCKER: DC rs)					
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
	Tonorth	Tu7 co	dorb +	

	Ler	ngth		ight				-		
Common Name	mm	(in)	gm	(1b)	W/S	Stage	Sex	Age	Pan#	Fish#
										~ ~~ ~~ ~~
BROWN TROUT		(2.6)								226
BROWN TROUT		(2.7)								83
BROWN TROUT		(2.8)								225
BROWN TROUT		(2.8)								224
BROWN TROUT		(2.8)								223
BROWN TROUT		(2.9)								158
BROWN TROUT		(2.9)								151
BROWN TROUT		(2.9)								157
BROWN TROUT		(2.9)								146
BROWN TROUT		(2.9)			•					118
BROWN TROUT		(3.0)								236
BROWN TROUT		(3.0)								216
BROWN TROUT		(3.0)								213
BROWN TROUT		(3.0)								206
BROWN TROUT		(3.0)								196
BROWN TROUT		(3.0)								187
BROWN TROUT		(3.0)								133
BROWN TROUT	76	(3.0)								89
BROWN TROUT		(3.0)								79
BROWN TROUT		(3.0)								207
BROWN TROUT		(3.0)								86
BROWN TROUT		(3.0)								78
BROWN TROUT		(3.1)								230
BROWN TROUT		(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		(3.2)								127
BROWN TROUT		(3.2)								85
BROWN TROUT		(3.2)								82
BROWN TROUT		(3.2)								72
BROWN TROUT	81	(3.2)								148
BROWN TROUT	81	(3.2)								123
BROWN TROUT		(3.2)								220
BROWN TROUT		(3.2)								192
BROWN TROUT	82	(3.2)								179
BROWN TROUT	82	(3.2)								106
BROWN TROUT	83	(3.3)								145
BROWN TROUT		(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		(3.3)								191
BROWN TROUT	85	(3.3)			•			•		186

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

Survey	#:	389007	Site #:	1		10/06/1989
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BROWN TROUT	Calvey ". Oo.	Length	Weight	-1-	0,00,.		•		
BROWN TROUT 85 (3.3) BROWN TROUT 85 (3.3) BROWN TROUT 85 (3.3) BROWN TROUT 85 (3.3) BROWN TROUT 85 (3.3) BROWN TROUT 86 (3.4) BROWN TROUT 87 (3.4) BROWN TROUT 87 (3.4) BROWN TROUT 88 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 90 (3.5) BROWN TROUT 91 (3.6) BROWN TROUT 92 (3.6) BROWN TROUT 93 (3.7) PROWN TROUT 94 (3.7) PROWN TROUT 94 (3.7) BROWN TROUT 95 (3.7) BROWN TROUT 96 (3.7) BROWN TROUT 97 (3.8) BROWN TROUT 98 (3.7) BROWN TROUT 99 (3.7) BROWN TROUT 90 (3.5) BROWN TROUT 90 (3.5) BROWN TROUT 91 (3.6) BROWN TROUT 92 (3.6) BROWN TROUT 93 (3.7) BROWN TROUT 94 (3.7) BROWN TROUT 95 (3.7) BROWN TROUT 96 (3.7) BROWN TROUT 97 (3.8) BROWN TROUT 98 (3.8) BROWN TROUT 99 (3.9) BROWN TROUT 90 (3.5) Common Name	mm (in)	gm (lb)	W/S	Stage	Sex	Age	Pan#	Fish#	
BROWN TROUT	BROWN TROUT	85 (3.3)							154
BROWN TROUT 85 (3.3) 119 BROWN TROUT 85 (3.3) 171 BROWN TROUT 87 (3.4) 129 BROWN TROUT 87 (3.4) 129 BROWN TROUT 87 (3.4) 129 BROWN TROUT 88 (3.5) 121 BROWN TROUT 88 (3.5) 121 BROWN TROUT 88 (3.5) 129 BROWN TROUT 88 (3.5) 129 BROWN TROUT 88 (3.5) 139 BROWN TROUT 88 (3.5) 148 BROWN TROUT 88 (3.5) 168 BROWN TROUT 88 (3.5) 173 BROWN TROUT 88 (3.5) 174 BROWN TROUT 88 (3.5) 188 BROWN TROUT 88 (3.5) 188 BROWN TROUT 88 (3.5) 173 BROWN TROUT 88 (3.5) 174 BROWN TROUT 89 (3.5) 175 BROWN TROUT 89 (3.5) 180 BROWN TROUT 89 (3.5) 115 BROWN TROUT 90 (3.5) 121 BROWN TROUT 90 (3.5) 121 BROWN TROUT 90 (3.5) 122 BROWN TROUT 90 (3.5) 123 BROWN TROUT 90 (3.5) 124 BROWN TROUT 90 (3.5) 125 BROWN TROUT 90 (3.5) 126 BROWN TROUT 90 (3.5) 127 BROWN TROUT 90 (3.5) 128 BROWN TROUT 90 (3.5) 129 BROWN TROUT 90 (3.5) 129 BROWN TROUT 90 (3.5) 129 BROWN TROUT 90 (3.5) 120 BROWN TROUT 90 (3.5) 121 BROWN TROUT 90 (3.5) 122 BROWN TROUT 90 (3.5) 125 BROWN TROUT 90 (3.5) 126 BROWN TROUT 90 (3.5) 127 BROWN TROUT 90 (3.5) 128 BROWN TROUT 90 (3.5) 129 BROWN TROUT 90 (3.5) 120 BROWN TROUT 90 (3.5) 121 BROWN TROUT 90 (3.5) 122 BROWN TROUT 90 (3.5) 124 BROWN TROUT 90 (3.5) 125 BROWN TROUT 90 (3.5) 126 BROWN TROUT 90 (3.5) 127 BROWN TROUT 91 (3.6) 140 BROWN TROUT 92 (3.6) 140 BROWN TROUT 93 (3.7) 141 BROWN TROUT 94 (3.7) 175 BROWN TROUT 94 (3.7) 175 BROWN TROUT 94 (3.7) 176 BROWN TROUT 95 (3.7) 187 BROWN TROUT 96 (3.7) 188 BROWN TROUT 97 (3.6) BROWN TROUT 98 (3.7) 190 BROWN TROUT 99 (3.6) BROWN TROUT 91 (3.6) BROWN TROUT 91 (3.6) BROWN TROUT 92 (3.6) BROWN TROUT 93 (3.7) 121 BROWN TROUT 94 (3.7) BROWN TROUT 95 (3.7) 122 BROWN TROUT 96 (3.7) BROWN TROUT 97 (3.6) BROWN TROUT 98 (3.7) BROWN TROUT 99 (3.7) BROWN TROUT 99 (3.6) BROWN TROUT 90 (3.6) BROWN TROUT 90 (3.5) BROWN TROUT 91 (3.6) BROWN TROUT 92 (3.6) BROWN TROUT 93 (3.7) BROWN TROUT 94 (3.7) BROWN TROUT 95 (3.7) BROWN TROUT 96 (3.7) BROWN TROUT 97 (3.6) BROWN TROUT	BROWN TROUT	85 (3.3)							147
BROWN TROUT 85 (3.3) 87 (3.4) 88 (3.4) 87 (3.4) 88 (3.5) 88 (3.5) 88 (3.5) 88 (3.5) 88 (3.5) 88 (3.5) 88 (3.5) 88 (3.5) 89 (3.6) 89 (3.6) 89 (3.6) 89 (3.6) 89 (3.5) 80 (3.6) 80		85 (3.3)						•	130
BROWN TROUT 87 (3.4) BROWN TROUT 87 (3.4) BROWN TROUT 87 (3.4) BROWN TROUT 87 (3.4) BROWN TROUT 88 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 89 (3.5) BROWN TROUT 90 (3.5)									
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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								
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BROWN TROUT 95 (3.7) 190									
BROWN TROUT 95 (3.7) 170	•								
	BROWN TROUT	95 (3.7)							170

===== Individual Fish Records ====== Survey #: 389007 Site #: 1 10/06/1989

		Survey #:					:	10/06/3	1989		
				gth							
Comn	non Name	<u> </u>		(in)	gm	(Tp)					Fish#
BROWN	יייוטפיי			(3.7)			 			 	168
BROWN				(3.7)							162
BROWN				(3.7)							143
BROWN				(3.8)							149
BROWN				(3.8)							139
BROWN				(3.8)							152
BROWN				(3.8)							100
BROWN				(3.9)							212
BROWN				(3.9)							203
BROWN				(3.9)							164
BROWN				(3.9)							66
BROWN				(3.9)							153
BROWN				(3.9)							113
BROWN				(3.9)							75
BROWN	TROUT			(3.9)							229
BROWN	TROUT			(3.9)							200
BROWN				(3.9)							195
BROWN				(3.9)							163
BROWN	TROUT			(3.9)							128
BROWN	TROUT			(3.9)							120
BROWN	TROUT			(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				(4.1)							73
BROWN				(4.9)							109
BROWN				(5.2)							165
BROWN				(5.2)							182
BROWN				(5.3)							144
BROWN BROWN				(5.4)							221
BROWN				(5.5) (5.7)							178 81
BROWN				(5.7)							141
BROWN		,		(5.8)							198
BROWN				(5.8)							177
BROWN				(5.9)							108
BROWN				(5.9)							205
BROWN	TROUT			(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			153	(6.0)							110
BROWN				(6.3)							98
BROWN				(6.4)							97
BROWN				(6.4)							96
BROWN				(6.5)							104
BROWN				(6.5)							107
BROWN	,			(6.5)							92
BROWN	IKOUT	*	168	(6.6)			, 'S.				166

===== Individual Fish Records ====== Survey #: 389007 Site #: 1 10/06/1989

Survey #:		Site		10/06/1	1989		
	Leng		Weight				·
Common Name	mm	(in)	gm (1b)	W/S Stage	Sex Age	Pan#	Fish#
							100
BROWN TROUT	168	•					102 172
BROWN TROUT	170	•					169
BROWN TROUT	172	-					90
BROWN TROUT	172	•					111
BROWN TROUT	173	•					68
BROWN TROUT	175						174
BROWN TROUT	176						
BROWN TROUT	176						171
BROWN TROUT		(7.0)					95
BROWN TROUT		(7.0)					93
BROWN TROUT		(7.0)					67
BROWN TROUT		(7.3)					160
BROWN TROUT		(9.1)					137
BROWN TROUT		(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		(2.8)					29
RAINBOW TROUT		(2.8)					16
RAINBOW TROUT		(2.9)					64
RAINBOW TROUT		(2.9)					60
RAINBOW TROUT		(2.9)					48
RAINBOW TROUT		(3.0)					56
RAINBOW TROUT		(3.0)					53
RAINBOW TROUT		(3.0)					51
RAINBOW TROUT		(3.0)	•				55
RAINBOW TROUT		(3.0)					49
RAINBOW TROUT		(3.2)					52
RAINBOW TROUT		(3.2)					47
RAINBOW TROUT		(3.2)					33
RAINBOW TROUT		(3.2)					13
RAINBOW TROUT		(3.4)					54
RAINBOW TROUT		(3.6)					50
RAINBOW TROUT		(4.7)	•				25
RAINBOW TROUT		(4.8)	•				4
RAINBOW TROUT		(4.9)					12
RAINBOW TROUT		(5.0)					26
RAINBOW TROUT		(5.0)					238
RAINBOW TROUT		(5.1)					28
WINDOM IVOOT	1.50	(4 . 4)					

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

	Survey #:			#: 1	:	10/06/1	1989			
				Weight					•	
Common Name	9		(in)		W/S	Stage	Sex	Age	Pan#	Fish#
RAINBOW TROU		132								239
RAINBOW TROU'			(5.2)							61
RAINBOW TROU'			(5.2)							45
RAINBOW TROU'	<u>.</u>		(5.2)							42
RAINBOW TROU'S	Γ	134	(5.3)							21
RAINBOW TROU'	C	135	(5.3)							2
RAINBOW TROU'	Γ	138	(5.4)							3
RAINBOW TROU'	ſ	139	(5.5)							32
RAINBOW TROU'	Γ	140	(5.5)							46
RAINBOW TROU	Γ	140	(5.5)							7
RAINBOW TROU'	r .	142								62
RAINBOW TROU!		142								44
RAINBOW TROU'		142								6
RAINBOW TROU!			(5.7)							27
RAINBOW TROU'			(5.7)							24
RAINBOW TROU!			(5.7)							11
RAINBOW TROU'			(6.0)							5
RAINBOW TROU!			(6.1)							58
RAINBOW TROU'			(6.2)							30
RAINBOW TROU'			(6.4)							20
RAINBOW TROU'			(6.5)							63
RAINBOW TROU!			(6.5)							14
RAINBOW TROU'			(6.5)							9
RAINBOW TROU!			(6.6)							43
RAINBOW TROU'			(6.8)							22
RAINBOW TROU!			(6.9)							23
RAINBOW TROU'			(7.3)							19
RAINBOW TROU			(7.4)							10
RAINBOW TROU'			(7.6)							8
RAINBOW TROU'			(7.7)							59
RAINBOW TROU			(7.9)							41
RAINBOW TROU			(7.9)							40
RAINBOW TROU'			(8.1)							57
RAINBOW TROU	Γ	208	(8.2)							18

===== Comments =====

Survey #: 389007 Site #: 1

115 (4.5)

Stream Site Location

BROOK TROUT

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

10/06/1989

File #

1593

*** See Comments ***

Survey Purpose :// Delung Pope cite

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)

1410

NYTME NYTMN

RMI Up Stream Length (mi)

1.9 05436 46637 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

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

Air Temp: 77 Weather:CLEAR

Surface:

Color: CLEAR, COLORLESS Turbidity: NONE

Bottom Depth (ft): 1.2

Secchi Depth (ft):

Depth Water Dissolved Total Pt-Co (ft) Temp Oxygen pH Alkalinity Conductivity Color Depth

.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 ==

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

	ry Statistics : 388996 S Number Caugh	ite #: 1 t Min mm	09,	/Ŏ9/1988 Mean mm		
Gear Type: ELECTROSHO Effort: Effort was no		ATOR, STREAM	M BRAIL			
LONGNOSE DACE	3			124 (4.9)		
RAINBOW TROUT	2			152 (6.0)		
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 ===== 09/99/1988
Survey #: 388996 Site #: 1 09/99/1988
Length Weight

Common Name	Length mm (in)	weight gm (lb)	W/S Stag	e 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
		:/Run 3			
LONGNOSE DACE	109 (4.3)				1

Survey #:		Bulk Catch D Site #: 1	09	クタ /99/1988 1		
Name	Number Caught		Max Length mm (in)	Total Weight	Stage Co	om Run#
Validity: FISH	CAUGHT,	MEASURED AND	COUNTED			
SCULPINS	18	38 (1.5)	117 (4.6)		•	7 1
RAINBOW TROUT	4	150 (5.9)	170 (6.7)		\mathtt{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)		•	? 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)		7	7 3
RAINBOW TROUT	35	48 (1.9)	86 (3.4)		$\mathbf{Y}\mathbf{Y}$	3
BROWN TROUT	54	56 (2.2)	104 (4.1)		YY	-3

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 * File # * 1593

388996 2 LOWER HUDSON

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

Air Temp: 79 Water Temp: 59 Weather: CLEAR Time: 1315

=== Flow === === Section Desc. ===

Max Depth (ft): 2.4 Section Length (ft): 300 Stream Width (ft): 17 Mean Depth (ft): .6 Channel Width (ft): 22 Conductivity: 100 Gradient (ft/40 ft drop): Velocity (fps):

Pool Length (ft): 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 === 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

Color: CLEAR, COLORLESS Turbidity: NONE Surface:

> Secchi Depth (ft): Bottom Depth (ft): 2.4

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

* ===== 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

Survey #: 3	Statistics fo 88996 Si umber Caught	te #: 2	09/	09/1988	SD mm (in)	
Gear Type: ELECTROSHOCKE Effort: Effort was not r		TOR, STREAM	M BRAIL		art time town arms and again time time, arms and or	
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 ======

Sur	vey #	: 388996	Site #: 2	09/09/1988
		Length	Weight	

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
	·	/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		
	Number	Min Length	Max Length	Total		
Name	Caught	mm (in)	mm (in)	Weight S	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)		\mathtt{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

GW	SURVEY COVER SHEET	Together consequences and an extra record of the co	eliterature operative in estile processivers and selection of	non sair magnetic ex
	NYS Bureau of Fisheries: Fisheries Data Base	SURVEY NUMBER	SURVEY PURPOSE	WSHED
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MAP	人 SURVEY PURPOSE	77		V
FILE NUMBER	15685.11	[] A		O V C B B O O K
SURVEY NUMBER	<u> </u>	FLAMERTY	NAME OF WATER	1001
STREAM SITE LOCATION RECORD	NYSDEC Bureau of Fisheries: Fisheries Data Base			Revision Date: 4/95 Coded

Sheet	of	Revision Date: 4/95	1; 4/95	Coded		1001	ر ان	1016	BROC	0 V		
P/S	WSHED	WATERSHED INDEX NUMBER		(from Biological (cal Survey overlay)	verlay)						
S		-11 2 1 - H	- 53									
SITE#	DATE 9	(MM/DD/YY) COMM	COMMENTS TOWNCITY	4	city name:	(Prefix city names with an "*".)			COUNTY	WATE	WATER CLASS	
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SITE#	DATE	(MM/DD/YY) COMM	COMMENTS TOWN/CITY		city name	(Prefix city names with an "*".)			COUNTY	WATE	WATER CLASS	
QUADRANGLE	NGLE							EDITION	QUAD TYPE	APE .		
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ALTITUDE)E	RMI		RMI UP		•	иутме О	0	NYTWN	NN		
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STREAM SITE LOCATION RECORD

Coding Instructions. See Data Dictionary for detailed Information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
 - FILE NUMBER Enter the applicable file number for this water or water segment from the watershed files.
- 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.
 - AUTHORITY Record the last name only of the biologist or technician that is in charge of the survey.
 - SURVEY PURPOSE Enter the appropriate code from the list below.
- 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. 6.5
- Do not use names like: "T12 OF WATKINS CREEK". If the water is unnamed, leave blank or enter "UNNAMED WATER".
 - 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.
- WIN (Watershed Index Number) For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays. WSHED - Enter the appropriate watershed code from the list below. ۶. %
- 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). 9.0
 - 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.)
- 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 <u>SITE DESCRIPTION</u> 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.
- 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 4.
- WATER CLASS Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
- 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. 5.
 - EDITION Record the last two digits of the year the map was printed. QUAD TYPE Enter the appropriate code from the list below. 17.
- SITE DESCRIPTION Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
- 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 ALTITUDE - Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet. RMI (<u>River Mile Index</u>) - *Streams only.* Enter the distance in miles of the downstream most point of the stream study site from the <u>mouth</u> of the stream. 20.
 - 23. NYTME, NYTMN Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

SIBVEV DIRPORE CODER

HOG	VEY PU	SURVEY PURPOSE CODES		WA	TERSHE	WATERSHED CODES		QUAD TYPE CODES	
Brood stock monitoring	-	Rare/endangered species	. 13	Allegheny -	∢	Mohawk	≥.	NY Dent of Transportation 7.5'	
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Fish salvage operation	. 7	Post-reclamation survey	- 19	Genesee .	G	St. Lawrence	S.	US Geological survey 7.5' X 15'	· •
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Pre-reclamation survey	- 10	Radiation sampling	- 22				;	OVerlave	NYBE
Population estimate:		Monitoring of tournaments	. 23						
Delury	=	Evaluate exp. stocking water	- 24						
Petersen	- 12	Whirling disease sampling	- 25						
		Other, explain in COMMENTS	- 88						

	GEAR, E	GEAR, ELECTROFISHING RECORD	ING RECORD	WATERSHED CODE	PON	
	NYSDEC	NYSDEC Bureau of Fisherles: Fisheries Data Ba	sheries Data Base	NAME OF WATER LOST CLOUS WATERSHED INDEX NUMBER (STREAMS ONLY)	BROOK H-(71-5	
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SITE#	NET/RUN#	GEAR CODE	INVENTORY NUMBER	WEATHER R	LENGTH of SHORELINE SHOCKED	COMMENTS
TIME START	TIME STOP	ON-TIME	WATER S	TEMPERATURE: AIR S 2 .	TEMP UNITS CONDUCTIVITY	METHOD
SECCHI DEPTH	Воттом	AC/DC WAVEFORM	IRM PULSE RATE	AMPERAGE VOLTAGE	UNITS BRAIL LENGTH	DC WANDS
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SECCHI DEPTH	н Воттом	AC/DC WAVEFORM	RM PULSE RATE	AMPERAGE VOLTAGE	UNITS BRAIL LENGTH	DC WANDS
FLow T	TARGET FINGER	FINGERLING EFFICIENCY	ALING EFFICIENCY	OLDER TROUT EFFICIENCY	SCAPPERS ZERO CATCH DA	DAMAGE/BIAS
BOTTOM 1	BOTTOM COMPOSITIC ABD 1 BOTTOM 2	N AND ABUNDA ABD 2	NCE BOTTOM 3 ABD 3	VEGETATION OF SUBMERGED	VEGETATION COMPOSITION AND ABUNDANCE - PONDS ONLY JBMERGED EMERGENT FLOATIN	SS ONLY FLOATING

ELECTROFISHING GEAR RECORD

Coding Instructions. See Data Dictionary for detailed Information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
- 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)
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
- 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.
 - INVENTORY NUMBER Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD) GEAR CODE - Enter the appropriate code from the list
 - WEATHER Enter the appropriate code from the list below. 6. 4. 7. 10.
- RAIN 48 Enter "Y" if significant rain, that could blas the data, has fallen at the site during the previous 48 hours.
 - LENGTH of SHORELINE SHOCKED Enter the length of shoreline that was fished per run to the nearest yard.
- 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.
- 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.
- 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. ž <u>છ</u>
 - 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,
 - WATER TEMPERATURE Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- AIR TEMPERATURE Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
 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.
 - SECCHI DEPTH Record the secchl depth, or the bottom depth, if the secchl depth and the bottom depth would be equal, to the nearest tenth of a foot. CONDUCTIVITY - Record the conductivity of the water to the nearest µmho/cm³. CONDUCTIVITY METHOD - Enter the appropriate code from the list below
 - BOTTOM Enter "Y" if the secchi depth equals the bottom depth.

 - AC/DC Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
 - WAVEFORM Enter the appropriate code from the list below
- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
 - 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. VOLTAGE Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt. 16. 17. 19. 20. 22. 22. 22. 22. 22. 23. 33. 33.
 - UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.
 - BRAIL LENGTH Record the length of the brail to the nearest whole foot
 - DC WANDS Record the number of DC wands used with an electroshocking system.
 - FLOW Enter the appropriate code from the list below.
- TARGET Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only. YEARLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
- 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, hen record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.

 - BIAS Enter "Y" if the electrofishing effort was blased, or the equipment damaged. Explain in comments (Rectype CO) ZERO CATCH - Record "Y" if no fish are captured during the electrofishing effort.
 - BOTTOM 1, 2, 3 Enter the appropriate code from the list below. 34. 35. 37. 39.
 - ABUNDANCE (ABD) 1, 2, 3 Enter the appropriate code
- SUBMERGED, EMERGENT, FLOATING Enter the appropriate code that best describes the abundance of each type of vegetation.

ECODES	Boulder - BO Cobble - CO Gravel - GR
BOTTOM TYPE CODES	- A Plant Boulder - BO - B debris - PD Cobble - CO - E Vegetated - VG Gravel - GR
TARGET CODES	All fish A Bass species B Esocids E
ELECTROFISHING GEAR CODES	Backpack shocker; DC . 57 Backpack shocker; Coffelt, AC . 58 Electric shocker; Boat, AC . 61
WEATHER CODES	Clear - CLR Cloudy - CLDY Hazy - HAZY

ELECTROFISHING GEAR CODES	TARGET CODES	ВОТТС
Backpack shocker; DC - 57	All fish - A	Plant
Backpack shocker; Coffelt, AC - 58	Bass species · B	debris
Electric shocker; Boat, AC - 61	Esocids E	Vegetated
Electric shocker; Boat, DC . 62	Gamefish only G	Unknown
Electric shocker: AC generator - 63	Percids - P	Concrete .
	Trout, all	Bedrock .
	Trout, fingerlings - F	Clay .
	Trout, yearlings - Y	•
	Other, see	
	Comments - 9	

NOTES

Gear employed with the	1	•	Gear employed both directions - B			WAVEFORM CODES		1/2 wave (pulsed DC) 1	34 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%
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	Presto-tek model DP 03	Poly Pram model DP 30-39	Cole Parmer 1481 - 55	Presto-tek model DSPH - 3	DSPH - 3 Pocket Pal	Whatman CDM510	Cole Parmer 1491 - 62	Hanna HI 8033	Cole Parmer 1500 - 20	Cole Parmer TDS pocket	meter	Lab analyzed, Identify In	comments	ALSC lab in Ray Brook	See comments for	make/model of meter	See comments for method

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Gear employed against the

CONDUCTIVITY METHOD

CODES

Chemtrix type 700

Gear employed with the

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INDIVIDUAL FISH: SHORT FORM

NYSDEC Bureau of Fisheries: Fisheries Data Base

SPECIES CODE

FISH NUMBER

PANEL NO

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POND NUMBER WATERSHED INDEX NUMBER (STREAMS ONLY) H-171 Lost NAME OF WATER

NET/RUN# υοΣΣ AGE WEIGHT (GM) SITE# α (MM/DD/YY) LENGTH (MM) Ç 7 DATE SPECIES CODE 329 0 6 FISH NUMBER SURVEY NUMBER 300023 WATERSHED CODE PANEL NO OOEE AGE Coded WEIGHT (GM) Revision Date: 7/96 10 3 0 a ∞ 1 1 S a LENGTH (MM) $\overline{a_{\mathbf{g}}}$ 0 $\overline{\omega}$ \overline{a} 7 W 5 3 7 O J Ø

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BULK CATCH DESCRIPTIVE DATA RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
- 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).
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.
- NET/RUN NUMBER The number that corresponds to the electrofishing run, trawl run or seine haul during which the fish described was caught.
- 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.
 - 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.
 - NUMBER CAUGHT (OR OBSERVED) Enter the number of fish in the catch, either actual or estimated.
 - MINIMUM LENGTH Enter the total length of the smallest fish in the collection, in millimeters. MAXIMUM LENGTH - Enter the total length of the largest fish in the collection, in millimeters.
- 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 7. 1 8. 1 10.
- STAGE Enter the appropriate code from the list below. this field for every species recorded!
- SEX Enter "M" for male and "F" for female. Leave blank if unknown or undetermined.
- TOTAL WEIGHT Enter the combined weight for all of the fish captured, when weighed as one single sample. Record weights in grams.
- 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 NUMBER IN SUB-SAMPLE - If the catch is divided int sub-samples, record the number of fish in the sub-sample. This line of data MUST refer to the sub-sample only.
 - COMMENTS Enter "Y" If a comment record (Rectype CO) relating to a BF record for this survey, date, site, nevrun, and species has been completed.

STAGE CODES

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

are also necessary for CROTS stocking calculations. To use this

form for WHNF "N" determinations, record the VALIDITY CODE competitive impact on stocked trout. WHNF "N" determinations

as D, divide the catch by species and into the following size

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596; PS. 335; RSM 326; RT

Rainbow smelt Rainbow trout

102; BND 603; COB

286; 800

Blueback herring Black crapple Blacknose dace

Bluegill

348; MSK

Mottled sculpin

347: NP

Northern plke Pumpkinseed Muskellunge

531; KF

Atlantic salmon

American eel

Banded killifish

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VALIDITY CODES

866; SS 600; SME

Smallmouth bass

Striped bass Striped bass Tiger musky

Splake

Silmy sculpin

45; CHC

Channel catfish

Brown trout Brook trout

Chaln pickerel

349; PKL

322 320 365

Chlnook salmon

444; BB 328; BT

Brown bullhead

Rock bass

X White bass

385; CSH

Sommon shine

Sreek chub

Common carp

Soho salmon

106; CC 407; FF 377; GS 330; LT

591; RB

345

Redfin pickerel

Redbreast sunfish X Pumpkinseed

598; BGS 329; ST

The state of the s
Fish caught, counted, and measured
Fish caught, counted, smallest and largest measured
Fish caught, counted, measurements estimated
Fish caught, counted, measurements reflect length frequency classes
Fish caught, numbers estimated, smallest and largest measured
Fish caught, numbers estimated, measurements estimated
Fish observed, numbers estimated, measurements estimated
Bulk weight of individual fish recorded on the IF forms
Other, explain in comment records

575; WP 419; WS

> White sucker Yellow perch

Grass pickerel

White perch

Walleye

294; GIZ

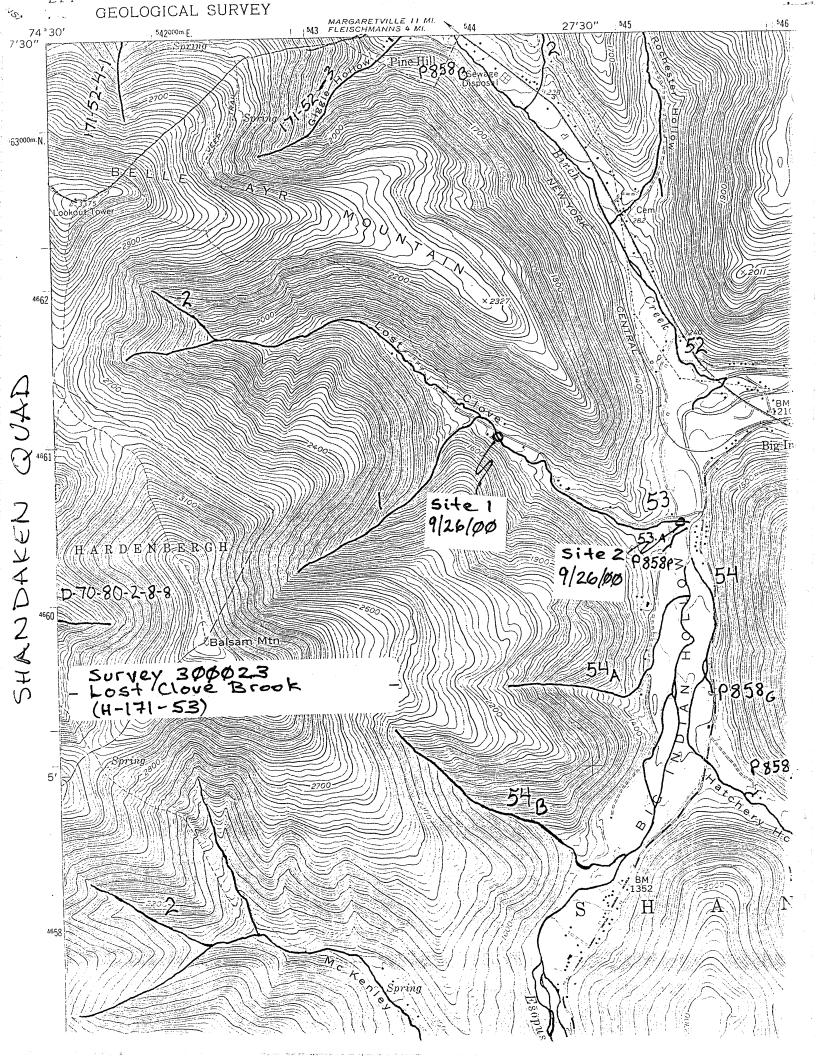
Sizzard shad Golden shiner

Ager trout

826; PP

(Use with CROTS surveys only)

ООШЕ



Survey from Sept. 3, 1936

	11, 213			المسيعة	C. La Cola marina	- Langue Friday	ورجع بياسران بيواكات		C VIII DE MONTE SEA	Commence in the second of the second	
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Seneca 51a*	Hollow O.3mi.	Str** Posted	to fi	shing	by Rip	VanWi	nkle	Club	7 7 7	Poster	1,200 B.T.
	ch Cr.)	3					LALL	7.40	7. 0	7.0000	1,200 D.I.
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SURVEY COVER SHEET			CONTRACTOR AND DESCRIPTION OF THE PROPERTY OF
NYS Bureau of Fisheries: Fisheries Data Base	SURVEY NUMBER	SURVEY PURPOSE	WSHED
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STREAM SITE LOCATION RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once! FILE NUMBER Enter the applicable file number for this water or water segment from the watershed files.
- 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.
 - AUTHORITY Record the last name only of the biologist or technician that is in charge of the survey.
 - SURVEY PURPOSE Enter the appropriate code from the list below
- 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"
 - 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.
 - WSHED Enter the appropriate watershed code from the list below. . 8. 6
- WIN (Watershed Index Number) For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
- 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). ō.
 - 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.) Ξ
- 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.
- 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
- 15. 16.
- WATER CLASS Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.

 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.
 - EDITION Record the last two digits of the year the map was printed.
 - QUAD TYPE Enter the appropriate code from the list below.
 - SITE DESCRIPTION Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks. 17. 18.
- ALTITUDE Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
- RMI (<u>River Mile Index</u>) Streams only. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.

 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 20. 21.
- 23. NYTME, NYTMN Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

STATE CORES WATERSHED CODES SURVEY PURPOSE CODES

		SOUVET FORFORE CODES			WAIERS	WAIERSHED CODES		GOAD TYPE CODES	
Brood stock monitoring	-	Rare/endangered species	. 13	Allegheny	∢ .	Mohawk	Σ.	NY Dept of Transportation 7.5'	
Centrarchid sampling plan	8	Reclassification	- 14	Black	m	Ontario	0	topographic or planimetric mapsheet.	NYDT
CROTS survey		Special regs evaluation	- 15	Champlain	ပ ·	Oswego	so ·	US Geological Survey 7.5'	
Egg take	4	Stream protection (Art 15)	- 16	Chemung	CM -	Oswegatchie	M O ·	topograpphic mapsheet.	USGS
Esocid sampling plan		Trap and transfer	- 17	Delaware	α.	Raquette	œ.	US Geological Survey 15'	
Fish kill investigation	9	TSMP collection	- 18	Erie-Niagara	M N	Susquehanna	s ·	topographic mapsheet.	US15
Fish salvage operation	. 7	Post-reclamation survey	- 19	Genesee	<u></u>	St. Lawrence	· SL	US Geological survey 7.5' X 15'	
General biological survey	œ	Pre-liming survey	- 20	Lower Hudson	H - 1	St. Lawrence, Can	SC .	topographic mapsheet.	7X15
Percid sampling plan	6	Post-liming survey	. 21	Long Island	=	Upper Hudson	HO .	NY Bureau of Fisheries 7.5' mylar	
Pre-reclamation survey	- 10	Radiation sampling	- 22			-		overlavs.	NYBF
Population estimate:		Monitoring of tournaments	- 23						
Delury	-	Evaluate exp. stocking water	- 24						
Petersen	- 12	Whirling disease sampling	- 25						
		Other, explain in COMMENTS	66 -						

<u>Ш</u>	GEAR, ELECTROFISHING RECORD	シェクラフラフョウ	
	NYSDEC Bureau of Fisherles: Fisheries Data Base	NAME OF WATER COLOSCIE HOLOSCIEN WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-52	8
Sheet	of Revision Date: 4/95 Coded	SURVEY NUMBER SOCO 27	3W)
SITE #	NET/RUN# GEAR CODE INVENTORY NUMBER [5]	WEATHER RAIN 48 SHORELINE SHOCKED	ED COMMENTS
TIME START	TIME STOP ON-TIME WATER 4 8	TEMPERATURE: TEMP AIR UNITS CONDUCTIVITY -	/ITY METHOD
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ELECTROFISHING GEAR RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
- 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)
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.

- NETRUN 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.
 GEAR CODE Enter the appropriate code from the list
 below.
 INVENTORY NUMBER Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD).
 WEATHER Enter the appropriate code from the list below.
 ARAIN 48 Enter the appropriate code from the data, has fallen at the site during the previous 48 hours.
 ARAIN 48 Enter "Y" if significant rain, that could blas the data, has fallen at the site during the previous 48 hours.
 LENGTH of SHORELINE SHOCKED Enter the length of shoreline that was fished per run to the nearest yard.
 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.
 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
- 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 eurvey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730.
- 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 survey was done. For the AM hours before 10:00 record a leading zero, i.e. 7:30 AM = 0730. <u>.</u>
 - WATER TEMPERATURE Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows. melers on the generator or control box, or estimated,as for backpack shockers.
- 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. TEMPERATURE - Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
 - CONDUCTIVITY Record the conductivity of the water to the nearest µmho/cm³.
- 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. CONDUCTIVITY METHOD - Enter the appropriate code from the list below.
 - BOTTOM Enter "Y" if the secchi depth equals the bottom depth.
- AC/DC Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
- - WAVEFORM Enter the appropriate code from the list below
- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
- 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. VOLTAGE Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
 - - UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.
 - WANDS Record the number of DC wands used with an electroshocking system. BRAIL LENGTH - Record the length of the brail to the nearest whole foot
 - FLOW Enter the appropriate code from the list below.
- TARGET Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only. YEARLING EFFICIENCY - Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
- 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.
 - SCAPPERS Record the number of scappers
- ZERO CATCH Record "Y" if no fish are captured during the electrofishing effort. BIAS Enter "Y" if the electrofishing effort was blased, or the equipment damaged. Explain in comments (Rectype CO)
 - BOTTOM 1, 2, 3 Enter the appropriate code from the list below.
 - - ABUNDANCE (ABD) 1, 2, 3 Enter the appropriate code. SUBMERGED, EMERGENT, FLOATING Enter the appropriate code that best describes the abundance of each type of vegetation. 34. 35. 39.

BOTTON
TARGET CODES
ELECTROFISHING GEAR CODES
WEATHER CODES

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í	OTTOM TYPE CODES	Boulder Cobble Gravel Sand Silt Mari Mud
,	OM TY	. CT
	mi	Plant debris Vegetated Unknown Concrete Bedrock Clay
	ODES	₹₩₩₫₫₽₩
	TARGET CODES	All fish Bass species Esocids Gamefish only Percids Trout, all Trout, fingerlings
	ODES	57 61 63
	ELECTROFISHING GEAR CODES	Backpack shocker; DC Backpack shocker; Coffelt, AC - Electric shocker; Boat, AC Electric shocker; Boat, DC Electric shocker; AC generator - Electric shocker; DC generator -
	VEATHER CODES	CLBY CLDY HAZY PCDY RAIN
	WEATHE	Clear Cloudy Hazy Partly cloudy Ralning Snowing

Comments

NOTES:

Other, see

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C	Poly Pram model DP 30-39	<u>.</u>	
SU	Cole Parmer 1481 - 55	'n	gear employed both directions
	Presto-tek model DSPH - 3	·	
B0	DSPH - 3 Pocket Pal	.	
ე	Whatman CDM510	I.	WAVEFORM CODES
GR	Cole Parmer 1491 - 62	-	
· SD	Hanna HI 8033	7	1/2 wave (pulsed DC) - 1
L	Cole Parmer 1500 - 20	Υ.	34 wave - 2
3	Cole Parmer TDS pocket		Full wave
	meter	₹.	Other see Comments . 9
E	Lab analyzed, identify in		
	comments	٠.	
	ALSC lab in Ray Brook	oc.	1000
	See comments for	21	ABUNDANCE CODES - 0 = 1-5
	make/model of meter	и.	1 = 6.25%; $2 = 26.50$
	See comments for method	6	3 = 51-90%; 4 = > 90

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

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Gear employed against the

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NET/RUN# υοΣΞ AGE M 0 SITE# WEIGHT (GM) POND NUMBER WATERSHED INDEX NUMBER (STREAMS ONLY) H-171-Q $\frac{\infty}{\infty}$ 1 S درا (MM/DD/YY) T 4 7 <u>0</u> LENGTH (MM) ō S <u>a</u> 00 0 S <u>N</u> SPECIES CODE DATE 7 a 9 9 a 0 0 0 9 9 0 d N N 7 NAME OF WATER GIGGLE N 3 N 3 N $^{\sim}$ S 3 7 N FISH NUMBER 0 SURVEY NUMBER N 2 300027 WATERSHED CODE PANEL NO NYSDEC Bureau of Fisheries: Fisheries Data Base 0025INDIVIDUAL FISH: SHORT FORM AGE Coded Ø Ø S 8 WEIGHT (GM) W 2 3 Revision Date: 7/96 <u>S</u> <u>0</u> 00 62 9 $\overline{\infty}$ 4 4 <u>~</u> LENGTH (MM) $\overline{\mathcal{Q}}$ (\mathcal{N}) 2 S SPECIES CODE 0 an-0 Q D 0 5 0 G 6 0 \circ D D CF a N 0 N 0 7 7 N 2 N N 6 N c_{J} 0 0 3 M B N $\overline{\mathcal{N}}$ CV 5 3 M 0 FISH NUMBER N 当ら 9 1 W S Q 7 \mathcal{N} $_{\rm of}$ PANEL NO Sheet

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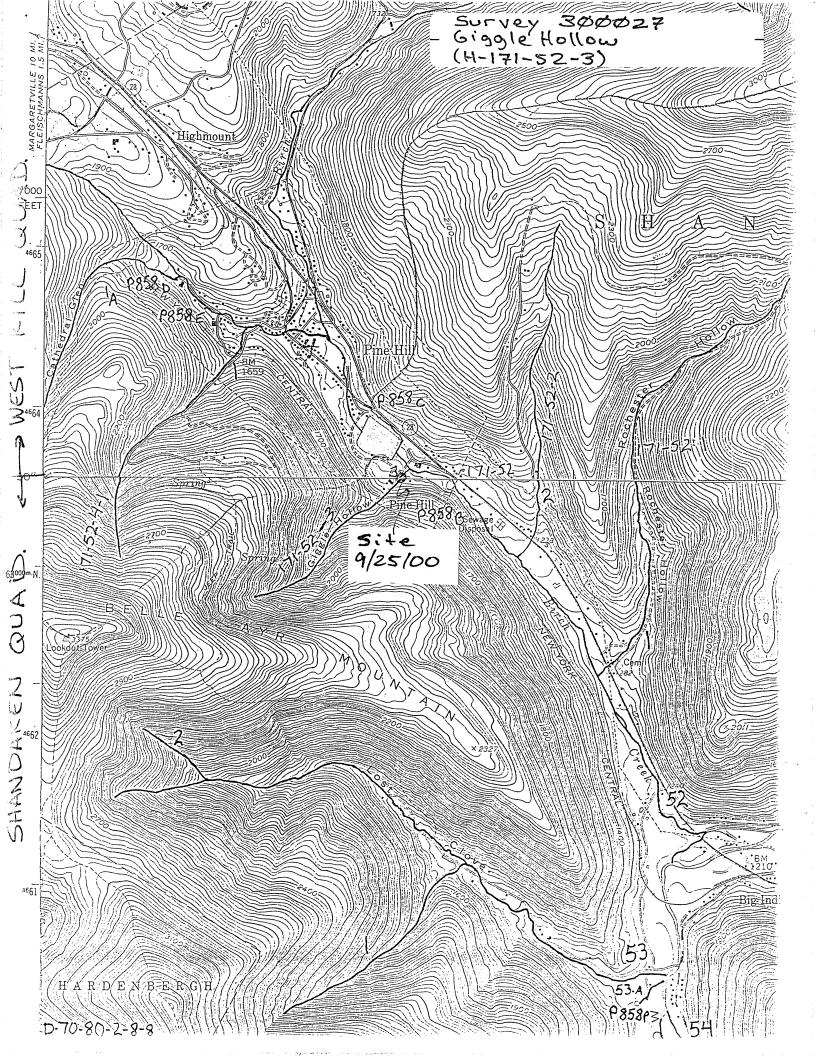
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NYS Bureau of Fisheries: Fisheries Data Base	SURVEY NUMBER SURVEY PURPOSE WSHED
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No. of Pages (including cover sheet) Rev. 9/00	CATHEDRAL GLEN BROOK
WATERSHED INDEX NUMBER or POND NUMBER	
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Finaerlinas were to	und in the 100 toot
section sampled	. This stream should be
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proposed for upa	rading from its current
1 D classification	to a minimum c(TS)
Protection should	be given to this stream
to ensure that	trout and trout spawning
habitat is not de	graded.
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STREAM SITE LOCATION RECORD		NYSDEC Bureau of Fisheries: Fisheries Data Base			Revision Date: 4/95 Coded	
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AUTHORITY AUTHORITY F L A H E R T Y NAME OF WATER C A T H E D R A L	STREAM SITE LOCATION RECORD		FILE NUMBER	MAP
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STREAM SITE LOCATION RECORD

Coding Instructions. See Data Dictionary for detailed information

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
 - FILE NUMBER Enter the applicable file number for this water or water segment from the watershed files.
- 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.
 - AUTHORITY Record the last name only of the biologist or technician that is in charge of the survey,
- SURVEY PURPOSE Enter the appropriate code from the list below.
 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".
 - 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.
 - WSHED Enter the appropriate watershed code from the list below.

ö

- WIN (Watershed Index Number) For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays.
- 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) 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.)
- 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. 2
 - 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.
- 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. 4.
 - 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 WATER CLASS - Enter the classification standard for the stream as listed in the appropriate article of the NYCRR. most point of the survey section 5.
 - EDITION Record the last two digits of the year the map was printed. 72.9
 - QUAD TYPE Enter the appropriate code from the list below.
- SITE DESCRIPTION Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks. 6
- ALTITUDE Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
- RMI (<u>River Mile Index)</u> Streams only. Enter the distance in miles of the downstream most point of the stream study site from the mouth of the stream.
- 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 21.
 - 23. NYTME, NYTMN Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays. the stream.

SUR	/EY PU	SURVEY PURPOSE CODES		SI	/ATERS	WATERSHED CODES		QUAD TYPE CODES	
Brood stock monitoring	_	Rare/endangered species	. 13	Allegheny	4	Mohawk	11	NV Dont of Transmortation 7 5'	
Centrarchid sampling plan	7	Reclassification	- 14	Black		Ontario	E C	4	+0221
CROTS survey	რ	Special reds evaluation		Champlain	، د	Omano	5	mapsueer	
Egg take	4	Stream protection (Art 15)	. 16	Chemina	200	Oswego	s 8	'n	0
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risii kiii iiivesugaiion	•	ISM P Collection	- 18	Erie-Niagara	Z W	Susquehanna	s ·	topographic mapsheet.	US15
rish salvage operation	- 7	Post-reclamation survey	. 19	Genesee	o	St. Lawrence	<u>.</u>	75' X 15'	
General biological survey	œ ,	Pre-liming survey	- 20	Lower Hudson	Ξ.	St. Lawrence Can		1	77.4
Percid sampling plan	ი	Post-liming survey	- 21	Long Island	i =	Upper Hudson	3 =	7 El millor	214
Pre-reclamation survey	. 10	Radiation sampling	- 22		i		5		NO.
Population estimate:		Monitoring of tournaments	- 23						
Delury	=	Evaluate exp. stocking water	- 24						
Petersen	- 12	Whirling disease sampling	- 25						
		Other, explain in COMMENTS	66 -						

NOTES:

NYSDEC Bureau of Fisheries: Fisheries Data Base	
	WATERSHED INDEX NUMBER (STREAMS ONLY) H-(71-52-4-14
	SURVEY NUMBER DATE (MM/DD/YY)
SITE # NET/RUN # GEAR CODE INVENTORY NUMBER	WEATHER RAIN 48 SHORELINE SHOCKED COMMENTS
TIME START TIME STOP ON-TIME WATER A	TEMPERATURE: TEMP AIR UNITS CONDUCTIVITY METHOD [
SECCHI DEPTH BOTTOM AC/DC WAVEFORM PULSE RATE AMPERAGE	PERAGE VOLTAGE UNITS BRAIL LENGTH DC WANDS
FLOW TARGET FINGERLING EFFICIENCY YEARLING EFFICIENCY OLDER TROU	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
SITE # NET/RUN # GEAR CODE INVENTORY NUMBER	WEATHER RAIN 48 SHORELINE SHOCKED COMMENTS
TIME START TIME STOP ON-TIME WATER A	TEMPERATURE: TEMP CONDUCTIVITY METHOD
SECCHI DEPTH BOTTOM AC/DC WAVEFORM PULSE RATE AMPERAGE	PERAGE VOLTAGE UNITS BRAIL LENGTH DC WANDS
RLING 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.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than oncel
- 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)
- 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. SITE NUMBER - Enter the number that corresponds to the description of the location of the sampling effort.
 - below. GEAR CODE - Enter the appropriate code from the list
- INVENTORY NUMBER Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD)
 - WEATHER Enter the appropriate code from the list below.
- RAIN 48 Enter "Y" if significant rain, that could blas the data, has fallen at the site during the previous 48 hours.
 - LENGTH of SHORELINE SHOCKED Enter the length of shoreline that was fished per run to the nearest yard.
- 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.

 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.
 - <u>دن</u>
 - 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.

 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
 - <u>ت</u>
 - meters on the generator or control box, or estimated as for backpack shockers. WATER TEMPERATURE Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- AIR TEMPERATURE Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
 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.
 - CONDUCTIVITY Record the conductivity of the water to the nearest µmho/cm³. CONDUCTIVITY METHOD - Enter the appropriate code from the list below.
- 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.
 - BOTTOM Enter "Y" if the secchi depth equals the bottom depth.
- AC/DC Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second. WAVEFORM - Enter the appropriate code from the list below
- 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. VOLTAGE Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.

 - UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.
 - BRAIL LENGTH Record the length of the brail to the nearest whole foot

-

- DC WANDS Record the number of DC wands used with an electroshocking system.
- FLOW Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only. TARGET - Enter the appropriate code from the list below.
- YEARLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.

 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, hen record the composite efficiency here, and leave the others blank. If efficiency is estimated for any species other than trout, enter that efficiency here.
 - SCAPPERS Record the number of scappers.
- ZERO CATCH Record "Y" If no fish are captured during the electrofishing effort.
- BIAS Enier "Y" if the electrofishing effort was blased, or the equipment damaged. Explain in comments (Rectype CO) 34.
 - BOTTOM 1, 2, 3 Enter the appropriate code from the list below 3 - Enter the appropriate code.
- SUBMERGED, EMERGENT, FLOATING Enier the appropriate code that best describes the abundance of each type of vegetation.

ES	. GR . SD . ST . ML
BOTTOM TYPE CODES	Boulder PD Cobble VG Gravel UN Sand CT Silt BR Marl CL Mud
OM TY	V V V V V V V V V V V V V V V V V V V
ВОТ	Plant debris Vegetated Unknown Concrete Bedrock Clay
ODES	▼ ШШОСТТ
TARGET CODES	All fish Bass species Esocids Gamefish only Percids Trout, all
ODES	. 57 . 58 . 61 . 62 . 63
ELECTROFISHING GEAR CODES	Backpack shocker; DC Backpack shocker; Coffelt, AC Electric shocker; Boat, AC Electric shocker; Boat, DC Electric shocker; AC generator Electric shocker; AC generator
CODES	CLR CLDY HAZY PCDY RAIN SNOW
WEATHER	Clear Cloudy Hazy Partly cloudy Ralning Snowing

ELECTROFISHING GEAR CODES	DES	TARGET CODES	DES	BOTTOM T	DM T
Backback shocker: DC -	21	All fish	٧.	Plant	
Backback shocker: Coffelt, AC -	58	Bass species	œ.	debris	. PD
Electric shocker: Boat, AC	61	Esocids	ш	Vegetated	. VG
Flactric shocker: Boat DC .	62	Gamefish only	ن	Unknown	5
Flootile shooker: AC generator		Percids	۵.	Concrete	
Electric silocker, AC garrier -	3 4	Trout, all	۲.	Bedrock	· BR
Electric strocker, DO generator	5	Trout, fingerlings	L.	Clay	ರ .
		Trout, yearlings	≻.	•	
		Other, see			
		Comments	6 -		

NOTES

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Chemtrix type / uo	•	ζ.	Gear employed with the
Presto-tek model DP 03	•	m	W - W
Poly Pram model DP 30-39	•	ပ	,
Cole Parmer 1481 - 55	٠	ш	dear employed born alrections
Presto-tek model DSPH - 3	•	ıL	
DSPH - 3 Pocket Pal	٠	G	מחמסס אימסחחעייייי
Whatman CDM510	. •	I	WAVEFORM CODES
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Hanna HI 8033	٠	7	1/2 wave (pulsed DC) · 1
Cole Parmer 1500 - 20	•	¥	% wave - 2
Cole Parmer TDS pocket			Full wave - 3
meter	•	Z	Other, see Comments - 9
Lab analyzed, identify in			
comments	•	_	
ALSC lab in Ray Brook	٠	œ	Value of Sanor Boundary
See comments for			ABONDANCE CODES : 0 = 1.5%
make/model of meter	•	N	0.00000000000000000000000000000000000
See comments for method	•	6	3 = 51-90%; 4 = > 90%
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FLOW CODES

CONDUCTIVITY METHOD

CODES

Gear employed against the

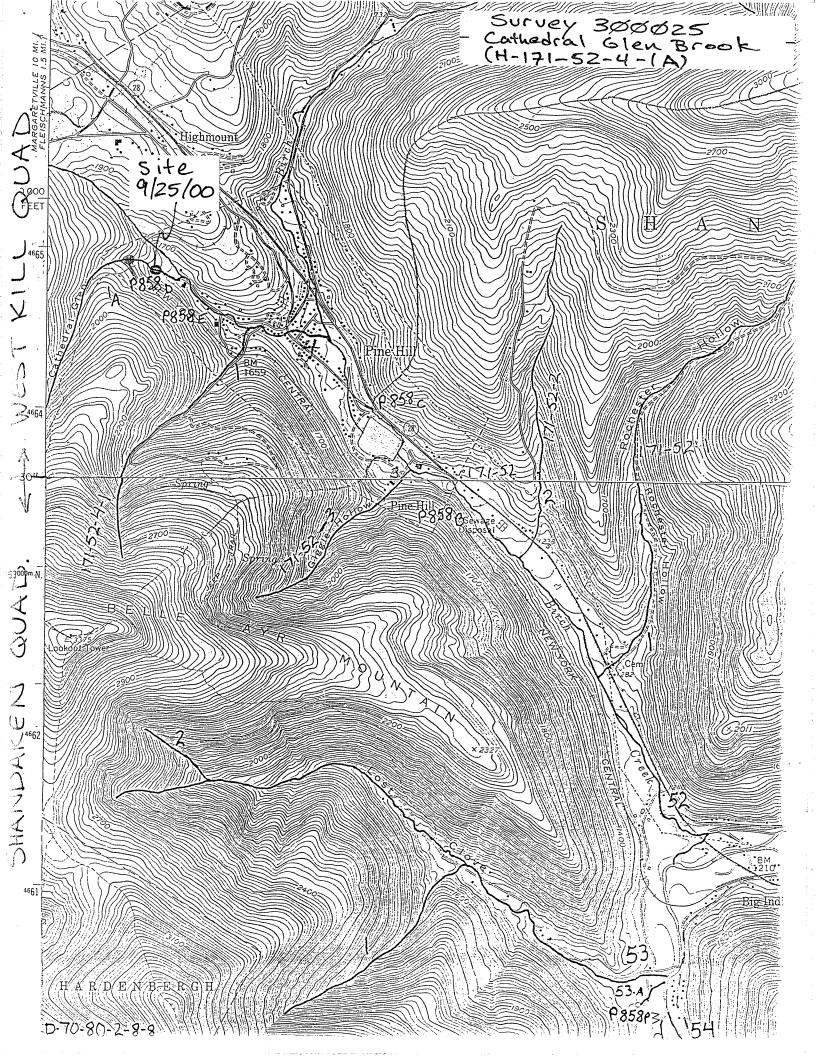
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INDIVIDUAL FISH: SHORT FORM

Z | υοΣΣ POND NUMBER WATERSHED CODE_

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اته	X	SURVEY NUMBER			6.11	S	2	6/1	U	S	N	N	S	N	w	∞	W	(U)				
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		of Revision Date: 7/96	FISH SPECIES LENGTH WEIGHT AGE (GM)	29 117 (118)	329 1112	329 101	32.9 1116	329 1144	329 1127 2	h 191 62	329 106 1	329. 153 2	1 628 01	29 111	329 126 11	1 625	329. 108	329 1135 11	111 628	329 116	329 130 1	
		Revision Date: 7/96	SPECIES LENGTH WEIGHT AGE CODE (MM)	29 117 (118)	329 1112	329 101	32.9 1116	329 1144	329 1127 2	h 191 62	329 106 1	329. 153 2	329 1	29 111	329 126 11	1 625	329. 108	329 1135 11	111 628	329 116	329 130 1	

Species Code = Species ST or 329 = Brenk, Trout RT or 326 = Rainbow Trout



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SURVEY COVER SHEET NYS Bureau of Fisheries: Fisheries Data Base	SURVEY NUMBER SURVEY PURPOSE WSHED
ENVESTIGATION OF THE PROPERTY	
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ng palawan na manggan nanggan atawa na manggan panggan panggan panggan na naggan panggan panggan panggan panggan	NAME OF WATER
No. of Pages (including cover sheet) Rev. 9/00	CRYSTAL SPRING BROOK
WATERSHED INDEX NUMBER or POND NUMBER	
H-11+11-52-4	
GENERAL SURVEY COMMENTS: (attach another sheet if a	dditional space is needed)
This survey was Co	orducted to document
	urrently in habit this
	ngerlings were found
	sampled. This stream
Should be propose	
its current (t)	standard to (TS)
Protection should	be given to this stream
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<u></u>	STREAM SITE LOCATION RECORD	RVEY NUMBER	8ER
	NYSDEC Bureau of Fisheries: Fisheries Data Base	SIOCOCIO 24 AUTHORITY	
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Sheet	of Revision Date: 4/95 Coded	[CR/9/5/7/A/2]	SPRIME BROCK
b/s Ws	WSHED WATERSHED INDEX NUMBER (from Blological Survey overlay)	urvey overlay)	
ر ا	LH 41-1711-152-14		
SITE#	(MM/DD/YY) COMMENTS TOWN/CITY	(Prefix city names with an "*".)	COUNTY WATER CLASS
	19/25/2001 SHIAINDIA	AKEN	ULST B(T)
JUADRANGLE []]	NOLE	EDITION	N 60 QUAD TYPE USGS
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		NYTME	NWLAN
SHE# E	DATE (MM/DD/YY) COMMENTS TOWN/CITY	(Prefix city names with an "*".)	COUNTY WATER CLASS
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SITE DESCRIPTION	SCRIPTION		
ALTITUDE	DE RMI NP	NYTME	O NYTWN
STE# D	DATE (MM/DD/YY) COMMENTS TOWN/CITY	(Prefix city names with an "*".)	COUNTY WATER CLASS
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SITE DESCH	SITE DESCRIPTION		
ALTITUDE	DE RMI RMI RMI UP	NYTME	O NYTWN

STREAM SITE LOCATION RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
 - FILE NUMBER Enter the applicable file number for this water or water segment from the watershed files.
- 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.
 - AUTHORITY Record the last name only of the biologist or technician that is in charge of the survey.
 - SURVEY PURPOSE Enter the appropriate code from the list below. 6.5
- 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".
 - 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.
 - WSHED Enter the appropriate watershed code from the list below. . 8 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.
- 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). ö
- 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 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.) <u>:</u> 5
 - 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 site 0, where the SITE DESCRIPTION is ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
- 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 town or city name of the downstream most point of the survey section. 4.
- WATER CLASS Enter the classification standard for the stream as listed in the appropriate article of the NYCRR.
- 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 5. 6.
 - EDITION Record the last two digits of the year the map was printed.
 - QUAD TYPE Enter the appropriate code from the list below. 17.
- SITE DESCRIPTION Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks.
- ALTITUDE Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet. 19.
- 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. 21.
- RMIUP 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
 - NYTME, NYTMN Determine the New York Transverse Mercator Projection easting and northing coordinates from NYDOT map quadrangles or Biological Survey overlays.

WATERSHED CODES SURVEY PURPOSE CODES

SUR	VEY PU	SURVEY PURPOSE CODES		WATER	WATERSHED CODES		QUAD TYPE CODES	
Brood stock monitoring	-	Rare/endangered species	. 13	Alleghenv - A	Mohawk	2	NY Dent of Transportation 7.5'	
Centrarchid sampling plan	7	Reclassification	- 14	Black B	Ontario	·	tonographic or planimatric manshaat	TUVN -
CROTS survey	ო	Special regs evaluation	- 15	Champlain - C	Oswedo	. os	US Geological Survey 7.5'	
Egg take	4	Stream protection (Art 15)	- 16	Chemung - CM	Oswedatchie	% 0	tonographic mansheet	89811
Esocid sampling plan	N	Trap and transfer	- 17	Delaware - D	Raduette	· cc	US Geological Survey 15'	5
Fish kill investigation	9	TSMP collection	. 18	Erie-Niagara - EN	Susquehanna	: v:	topographic manshaat	11015
Fish salvage operation	. 7	Post-reclamation survey	- 19	Genesee . G	St. Lawrence	· .	US Geological survey 7 5' X 15'	2
General biological survey	œ •	Pre-liming survey	- 20	Lower Hudson - LH	St. Lawrence, Can		topographic menchaet	77.15
Percid sampling plan	6.	Post-liming survey	. 21	Long Island - LI	Upper Hudson	3 -	NY Burgal of Fisheries 7 5' myler	2
Pre-reclamation survey	. 10	Radiation sampling	- 22			;	Overlave	ad/i
Population estimate:		Monitoring of tournaments	. 23				0401293	2
Delury	=	Evaluate exp. stocking water	. 24	•				
Petersen	- 12	Whirling disease sampling	- 25		-			
		Other, explain in COMMENTS	66 -					

NOTES:

GEAR, ELECTROFISHING RECORD	WATERSHED CODE LH POND NUMBER
NYSDEC Bureau of Fisheries: Fisheries Data Base	X NUMBER (STREAMS ONLY)
Sheet of Revision Date: 4/95 Coded	SURVEY NUMBER DATE (MM/DD/YY) $3 \mathcal{O} \mathcal{O} \mathcal{O} \mathcal{O} \mathcal{O} \mathcal{O} \mathcal{O} \mathcal{O}$
SITE# NET/RUN# GEAR CODE INVENTORY NUMBER STATEMENTORY NUMBER	ER RAI
TIME START TIME STOP ON-TIME WATER	AIR CONDUCTIVITY METHOD
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FLOW TARGET FINGERLING EFFICIENCY YEARLING EFFICIENCY OF TARGET OF THE STORY OF THE STORY COMPOSITION AND ARITHMANCE.	OLDER TROUT EFFICIENCY SCAPPERS ZERO CATCH DAMAGE/BIAS O
BOTTOM 1 ABD 1 BOTTOM 2 ABD 2 BOTTOM 3 ABD 3	SUBMERGED EMERGENT FLOATING
SITE# NET/RUN# GEAR CODE INVENTORY NUMBER	WEATHER RAIN 48 SHORELINE SHOCKED COMMENTS
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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
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 - INVENTORY NUMBER Record the inventory number of the gear used. This number is assigned on a Gear Description Record (Rectype GD)
 - WEATHER Enter the appropriate code from the list below.
- RAIN 48 Enter "Y" if significant rain, that could bias the data, has fallen at the site during the previous 48 hours.
 - LENGTH of SHORELINE SHOCKED Enter the length of shoreline that was fished per run to the nearest yard.
- 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.

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 - ON-TIME Record the time, in hours and hundrecths 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.
 - WATER TEMPERATURE Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- AIR TEMPERATURE Record the air temperature in degrees Fahrenhelt or Celsius, as accurately as equipment allows.
 TEMP UNITS Record "F" if temperature readings are recorded in Fahrenhelt or "C" if they are recorded in Celsius. All temperature readings recorded on this sheet should be in the same units.
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 - WAVEFORM Enter the appropriate code from the list below
- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.
- 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. VOLTAGE - Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
 - UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.
 - BRAIL LENGTH Record the length of the brail to the nearest whole foot.
 - DC WANDS Record the number of DC wands used with an electroshocking system.
 - FLOW Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only TARGET - Enter the appropriate code from the list below. ŝ.
 - 33.
- YEARLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
 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.

SCAPPERS - Record the number of scappers.

- ZERO CATCH Record *Y* If no fish are captured during the electrofishing effort.
 BIAS Enter *Y* If the electrofishing effort was blassed, or the equipment damaged. Explain in comments (Rectype CO)
 BOTTOM 1, 2, 3 Enter the appropriate code from the list below.
- ABUNDANCE (ABD) 1, 2, 3 Enter the appropriate code. 34. 35. 39.
- SUBMERGED, EMERGENT, FLOATING Enter the appropriate code that best describes the abundance of each type of vegetation.

BOTTOM TYPE COD	Boulder Cobble
T MOT	. PD
	- A Plant Boulder - B debris - PD Cobble
CODES	4 m
TARGET CODES	- 57 All fish - 58 Bass species
ODES	. 57
ELECTROFISHING GEAR CODES	Backpack shocker; DC . 57 All fish Backpack shocker; Coffelt, AC . 58 Bass species
WEATHER CODES	- CLR - CLDY
WEATH	Clear Cloudy

BOTT	Plant debris Vegetated Unknown Concrete Bedrock Clay
ODES	ЧВШООТНТ
TARGET CODES	All fish Bass species Esocids Gamefish only Percids Trout, all Trout, fingerlings
ODES	. 57 . 58 . 61 . 62 . 63
ELECTROFISHING GEAR CODES	Backpack shocker; DC Backpack shocker; Coffelt, AC Electric shocker; Boat, AC Electric shocker; Boat, DC Electric shocker; AC generator Electric shocker; DC generator
CODES	CLDY CLDY HAZY PCDY RAIN SNOW

Partly cloudy

Hazy

Snowing Raining

NOTES

	۷		=	≥	8												×	%	%
Gear employed against the	current -	Gear amployed with the	coal clipicy or will allo	current	Gear employed both directions			WAVEFORM CODES		1/2 wave (pulsed DC) . 1	34 wave - 2	Full wave	Other see Comments , a				ABUNDANCE CODES - 0 = 1-5%	1 = 6-25%; 2 = 26-50%	3 = 51-90%; 4 = > 90%
		⋖	82	ပ	ш	ıL	G	×	_	7	¥		Z			œ		N	
		•	•	•	•	٠	•	•	•	•	٠		•	-	٠,	•		•	•
CODES		Cheminix type 700	Presto-tek model DP 03	Poly Pram model DP 30-39	Cole Parmer 1481 - 55	Presto-tek model DSPH - 3	DSPH - 3 Pocket Pal	Whatman CDM510	Cole Parmer 1491 - 62	Hanna HI 8033	Cole Parmer 1500 - 20	Cole Parmer TDS pocket	meter	Lab analyzed, Identify in	comments	ALSC lab in Ray Brook	See comments for	make/model of meter	See comments for method

GR

Gravel Sand

6

Comments

Other, see

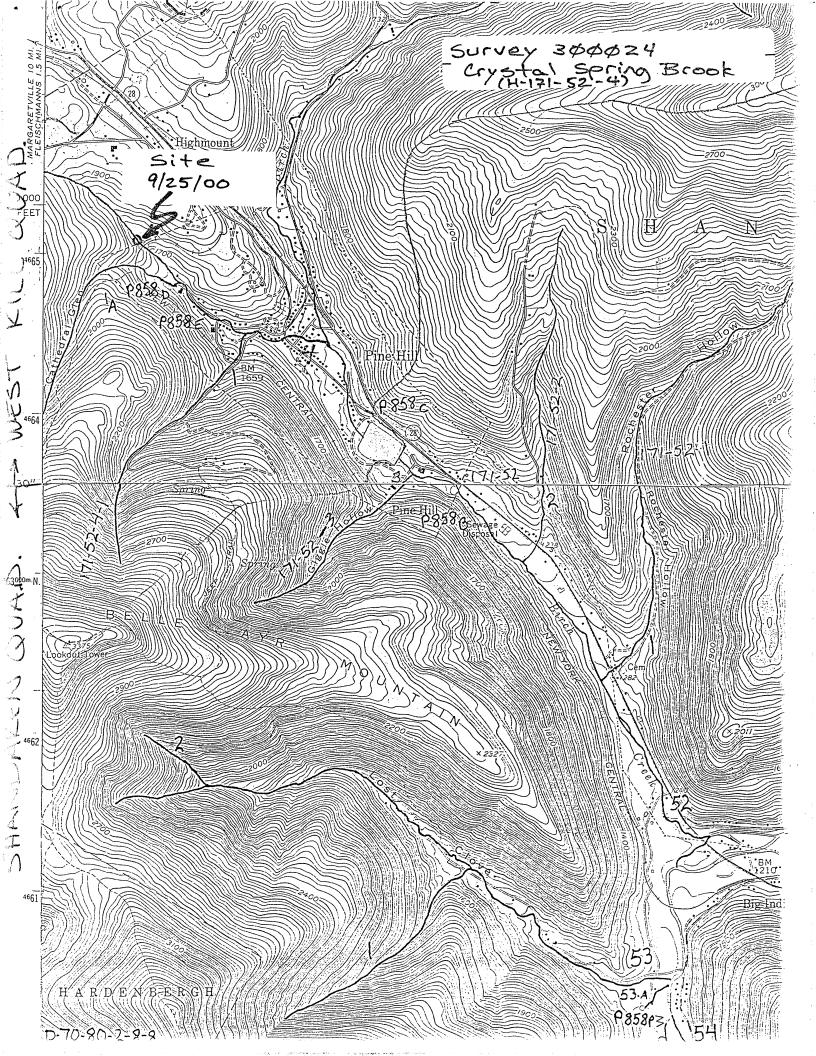
CODES

≥

FLOW CODES

CONDUCTIVITY METHOD

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E N	SITE #	<u>5</u> €							1						1					
JMB	<u></u>	WEIGHT (GM)																		
NON /																				
POND NUMBER		200000000000000000000000000000000000000		·						·			·			·	·		·	
	03	工	$\frac{8}{8}$	3		7														
B S	5 0	LENGTH (MM)	Ď	4	D	0		140	ļ			 								
g S	(MM/DD/YY)	E				-		-	-											
MS	\[\bullet \[\bullet \lambda \]			L	L			L		L			L	L		L	L			
COL M	m /	M III	9	0	0	b														
STF	DATE 9	DEC OD	N	N	13	2														
78 R		SPECIES	N	W	W	3														
WATERSHED CODE LH NAME OF WATER Lystal Joring Brook WATERSHED INDEX NUMBER (STREAMS ONLY)			C-	8		~1		I												
1315	<u>د</u>	FISH NUMBER	6/	9	2	22														
	SURVEY NUMBER	I ISI		10	17	17					\vdash									
C ER NO!																				
WAT		*************								L										
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FORM Data Base	7/96 Coded	LENGTH WEIGHT AGE (GM)	9 1/07	1 101 6	/	4/1/6	9///6	101/61	2 811 6	9 103	9. 1/42	691 6	7 1/17	901	6 4 11	9 ///2	9 89	971 6	9 /// 5	9 9
FORM Data Base	Coded	LENGTH WEIGHT AGE (GM)	1/07	1 101 62	/	E11 62	29 1/6	2	29 11/8 2	103	29. 142	29 160	29 1/7	29 106	79 11 4	29 1/2	29 89	29 126	29 //5	29 9
FORM Data Base	7/96 Coded	WEIGHT AGE (GM)	29 107 12	329 101	7 1/1	4/1/6	9///6		2 811 6	29 103 2	329. 142	329 160	7 1/17	329 106	6 4 11	9 ///2	9 89	329 126	329 115 1	329 9
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FORM Data Base	7/96 Coded	SPECIES LENGTH WEIGHT AGE CODE (GM)	29 107 12	329 101	7 1/1	329 117	329 116	32	29 11/8 2	329 103 2	329. 142	329 160	329 1/7	329 106	329 114	329 1/2	329 89	329 126	329 115 1	329 9
FORM Data Base	Revision Date: 7/96 Coded	FISH SPECIES LENGTH WEIGHT AGE (MM)	29 107 12	329 101	7 1/1	329 117	329 116	32	29 11/8 2	329 103 2	329. 142	329 160	329 1/7	329 106	329 114	329 1/2	329 89	329 126	329 115 1	329 9
FORM Data Base	of Revision Date: 7/96 Coded	FISH SPECIES LENGTH WEIGHT AGE (MM)	29 107 12	329 101	7 1/1	329 117	329 116	32	29 11/8 2	329 103 2	329. 142	329 160	329 1/7	329 106	329 114	329 1/2	329 89	329 126	329 115 1	329 9
FORM Data Base	Revision Date: 7/96 Coded	SPECIES LENGTH WEIGHT AGE CODE (GM)	29 107 12	329 101	7 1/1	329 117	329 116	32	29 11/8 2	329 103 2	329. 142	329 160	329 1/7	329 106	329 114	329 1/2	329 89	329 126	329 115 1	329 9



SURVEY COVER SHEET NYS Bureau of Fisheries: Fisheries Data Base	SURVEY NUMBER SURVEY PURPOSE WSHED 3 0 0 2 6
No. of Pages (including cover sheet) Rev. 9/00	WOODCHUCK HOLLOW
VATERSHED INDEX NUMBER or POND NUMBER	
H-171-52-4-11	
GENERAL SURVEY COMMENTS: (attach another sheet if a	dditional space is needed)
This survey was con	ducted to determine if
trout adults and/or	- fingerlings currently
inhabit this stream.	Trout adults and
section sampled.	nd in the 40 foot This stream should be
proposed for upgrad	
D classification	to a minimum C(TS).
And the second of the second o	be given to this stream
	raded.
Ihabitat is not deg	
The site sample	l included sections above and
below a bridge. Ih	is bridge had a concrete
bed on the down	
likely serves as	stream side. This very a barrier to upstream sh. Of the 13 trout and two collected above this barrier ream was sampled downstream 60 seet above the bridge.
migration of Ti	sh. Of the 13' trout
collected, only one	adult rainbow and two
tinger inas were	collected above this barrier
of the bridge and	60 Seet above the bridge.
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SURVEY NUMBER	FILE NUMBER
	Y \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
THORITY	SURVEY PURPOSE
FLAHERTY	<u> </u>
	U
INDEX NUMBER (fr	
S LH H-11711-152-14-11	
SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "*".)	COUNTY WATER CLASS ULST D
SST KILL EDITION	ITION 60 QUAD TYPE USGS
VINDER FIRST BRIDE WEAR MOUTH	
ALTITUDE //S/6/0 RMI 0 RMI UP . NYTME 0	
SITE# DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "*".)	COUNTY WATER CLASS
OUADRANGLE	TION GUAD TYPE
ALTITUDE RMI NYTME O	
SITE # DATE (MM/DD/YY) COMMENTS TOWN/CITY (Prefix city names with an "*".)	COUNTY WATER CLASS
QUADRANGLE EDITION	UTION GUAD TYPE
SITE DESCRIPTION	
ALTITUDE RMI RMI . NYTME O	

STREAM SITE LOCATION RECORD

Coding Instructions. See Data Dictionary for detailed information.

- SURVEY NUMBER Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
 - FILE NUMBER Enter the applicable file number for this water or water segment from the watershed files.
- 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.

 - AUTHORITY Record the last name only of the biologist or technician that is in charge of the survey. 4 . 0. 0
 - SURVEY PURPOSE Enter the appropriate code from the list below.
- 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". 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.
 - WSHED Enter the appropriate watershed code from the list below. . 8
- WIN (Watershed Index Number) For streams, enter the complete watershed index number. Use watershed index numbers as indicated on Biological Survey Unit map overlays. о 6
- 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). 9
 - 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 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 site 0, where the SITE DESCRIPTION is ENTIRE SURVEY or ENTIRE WATER or verbally describes the entire section surveyed.
- 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 town or city name 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
 - EDITION Record the last two digits of the year the map was printed.
 - QUAD TYPE Enter the appropriate code from the list below. 18
- SITE DESCRIPTION Describe the site as completely and accurately as possible. Reference map locations or prominent landmarks. 19 20.
- ALTITUDE Record the altitude in feet above sea level. Determine the altitude from topographic maps. Convert metric altitudes to feet.
- RMI (River Mile Index) Streams only. Enter the distance in miles of the downstream most point of the 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.

SILEVEY BILEDOCE CODES

NOC.	Z PC	SURVEY PURPOSE CODES		> 1	VATERSI	WATERSHED CODES		QUAD TYPE CODES	
Brood stock monitoring		Rare/endangered species	- 13	Allegheny	∢ .	Mohawk	≥.	NY Dept of Transportation 7.5'	
Centrarchid sampling plan		Reclassification	- 14	Black	m	Ontario	0	topographic or planimetric mapsheet.	- NYDT
CROTS survey	ღ ,	Special regs evaluation	- 15	Champlain	ပ	Oswego	. os	US Geological Survey 7.5'	
Egg take	4	Stream protection (Art 15)	. 16	Chemung	CM C	Oswegatchie	MO .	topograpphic mapsheet.	- USGS
Esocid sampling plan	دی	Trap and transfer	- 17	Delaware	۵.	Raquette	œ.	US Geological Survey 15'	
Fish kill investigation	9	TSMP collection	. 18	Erie-Niagara	EN	Susquehanna	σ	topographic mapsheet.	- US15
Fish salvage operation	. 1	Post-reclamation survey	- 19	Genesee	5	St. Lawrence	· SL	US Geological survey 7.5' X 15'	
General biological survey	œ	Pre-liming survey	- 20	Lower Hudson	H	St. Lawrence, Can	sc .	topographic mapsheet,	- 7X15
Percid sampling plan	6	Post-liming survey	. 21	Long Island	=	Upper Hudson	н	NY Bureau of Fisheries 7.5' mylar	
Pre-reclamation survey	- 10	Radiation sampling	- 22			-		overlavs.	NYBF
Population estimate:		Monitoring of tournaments	- 23						
Delury	- 1	Evaluate exp. stocking water	- 24						
Petersen	- 12	Whirling disease sampling	- 25						
		Other, explain in COMMENTS	66 -						

	GEAR, ELECTROFISHING RECORD	DE LH POND NUMBER
	NYSDEC Bureau of Fisheries: Fisheries Data Base	NE3
Sheet of	Revision Date: 4/95 Coded	300026 925000
SITE#	NET/RUN# GREAR CODE INVENTORY NUMBER 5 7	WEATHER RAIN 48 SHORELINE SHOCKED COMMENTS
TIME START	TIME STOP ON-TIME WATER	TEMPERATURE: TEMP CONDUCTIVITY METHOD I ON TEMP AIR ON TEMP AIR ON TEMP TEMP TEMP TEMP TEMP TO TEMP
SECCHI DEPTH	TH BOTTOM AC/DC WAVEFORM PULSE RATE	AMPERAGE VOLTAGE UNITS BRAIL LENGTH DC WANDS
FLow	TARGET FINGERLING EFFICIENCY YEARLING EFFICIENCY	OLDER TROUT EFFICIENCY SCAPPERS ZERO CATCH DAMAGE/BIAS
BOTTOM 1	BOTTOM COMPOSITION AND ABUNDANCE 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 SHORELINE SHOCKED COMMENTS
TIME START	TIME STOP ON-TIME WATER	TEMPERATURE: TEMP CONDUCTIVITY METHOD
SECCHI DEPTH	TH BOTTOM AC/DC WAVEFORM PULSE RATE	AMPERAGE VOLTAGE UNITS BRAIL LENGTH DC WANDS
FLOW	TARGET FINGERLING EFFICIENCY YEARLING EFFICIENCY	OLDER TROUT EFFICIENCY SCAPPERS ZERO CATCH DAMAGE/BIAS
BOTTOM 1	BOTTOM COMPOSITION AND ABUNDANCE 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.

- 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). SURVEY NUMBER - Enter the region, year, and survey serial number. Take caution not to use survey serial numbers more than once!
 - SITE NUMBER Enter the number that corresponds to the description of the location of the sampling effort.

- 4. NETRUN 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.
 7. WEATHER Enter the appropriate code from the list below.
 8. RAIN 48 Enter the appropriate code from the list below.
 9. LENGTH OSHORELINE 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.
 - 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. 12.
 - 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. <u>.</u>
 - WATER TEMPERATURE Record the water temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- TEMPERATURE Record the air temperature in degrees Fahrenheit or Celsius, as accurately as equipment allows.
- 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.
 - CONDUCTIVITY Record the conductivity of the water to the nearest µmho/cm³.
- 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. CONDUCTIVITY METHOD - Enter the appropriate code from the list below.
 - BOTTOM Enter "Y" if the secchi depth equals the bottom depth.
- AC/DC Enter "AC" for alternating current or "DC" for direct current electrofishing systems.
- WAVEFORM Enter the appropriate code from the list below
- PULSE RATE For AC systems enter the frequency, for DC systems enter the number of DC pulses per second.

 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.

 VOLTAGE Record the voltage applied to the water, this can come from a meter or equipment specifications. Record to the nearest whole volt.
 - - UNITS Enter the number of electroshocking units used in conjunction with each other for this collection effort.

ž.

- BRAIL LENGTH Record the length of the brail to the nearest whole foot
- DC WANDS Record the number of DC wands used with an electroshocking system.
 - FLOW Enter the appropriate code from the list below
 - TARGET Enter the appropriate code from the list below.
- FINGERLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout fingerlings (0+) only.
 YEARLING EFFICIENCY Enter the estimate of electroshocking efficiency as it relates to trout yearlings (1+) only.
 OLDER TROUT EFFICIENCY Enter the estimate of electrofishing efficiency as it relates to older frout (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.
 - SCAPPERS Record the number of scappers.
 - ZERO CATCH Record "Y" if no fish are captured during the electrofishing effort.
 - BIAS Enter "Y" if the electrofishing effort was blased, or the equipment damaged. Explain in comments (Rectype CO), BOTTOM 1, 2, 3 - Enter the appropriate code from the list below. 34. 35. 37. 39.
 - ABUNDANCE (ABD) 1, 2, 3 Enter the appropriate code.
- SUBMERGED, EMERGENT, FLOATING Enter the appropriate code that best describes the abundance of each type of vegetation.

ā	A 11-11-11-11-11-11-11-11-11-11-11-11-11-	Constant described	
BOTTOM T	TARGET CODES	ELECTROFISHING GEAR CODES	WEATHER CODES

S BOTTOM TYPE COL	Plant Boulder debris - PD Cobble Vegetated - VG Gravel Unknown - UN Sand Concrete - CT Silt Bedrock - BR Marl Clay - CL Mud
TARGET CODES	All fish Bass species - B Esocids - E Gamefish only - G Percids - P Trout, all - T
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 . 63
WEATHER CODES	Clear - CLR Cloudy - CLDY Hazy - HAZY Partly cloudy - PCDY Ratining - RAIN Snowing - SNOW

Poly Pigil model Dr 30-39	•	ו כ	Gear employed both directions - F
Cole Parmer 1481 - 55	•	ш	
Presto-tek model DSPH - 3	•	11.	
DSPH - 3 Pocket Pal	•	G	
Whatman CDM510	•	I	WAVEFORM CODES
Cole Parmer 1491 - 62	٠	_	
Hanna HI 8033	•	7	1/2 wave (pulsed DC) 1
Cole Parmer 1500 - 20	٠	¥	% wave - 2
Cole Parmer TDS pocket			Full wave
meter	•	Σ	Other see Comments . 9
Lab analyzed, identify in			
comments	٠		
ALSC lab in Ray Brook	٠	œ	
See comments for			ABUNDANCE CODES - 0 = 1-5%
make/model of meter	•	N	1 = 6-25%; 2 = 26-50%
See comments for method	٠	6	3 = 51-90%; 4 = > 90%

GR - SD

ME

Comments

Trout, yearlings

Other, see

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FLOW CODES

CONDUCTIVITY METHOD

CODES

Gear employed against the

Gear employed with the

ΑB

Poly Pram model DP 30-39 Presto-tek model DP 03

Chemtrix type 700

current current

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NET/RUN# υοΣΣ AGE WEIGHT (GM) SITE# POND NUMBER WATERSHED INDEX NUMBER (STREAMS ONLY) | 1-17|-DATE (MM/DD/YY) Ö LENGTH (MM) NAME OF WATER WOODLE Hollow N N SPECIES CODE 0 FISH NUMBER SURVEY NUMBER SARACIO WATERSHED CODE PANEL NO NYSDEC Bureau of Fisheries: Fisheries Data Base 00∑∑ INDIVIDUAL FISH: SHORT FORM AGE Coded WEIGHT (GM) N Revision Date: 7/96 LENGTH (MM) 0 M SPECIES CODE 128 7 28 00 O Q 0 2 2 8 9 0 5 U N N 0 0 S 0 S W M M 3 W S 3 3 ٥ S FISH NUMBER $_{\rm of}$ PANEL NO Sheet

Brook trout Brown trout Rainbow trout ij. u u u Species Code ST or 329 RT or 328

7.5

