

**The Status and Distribution of the River Otter (*Lontra canadensis*)
on
Long Island, New York**



Otter with Golden Shiner at St.John's Pond, Oyster Bay, December 2008. Robert Sendlein Photo.

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ABSTRACT

Historically, river otters (*Lontra canadensis*) were found on many of Long Island's waterways: fresh and salt water ponds, creeks, embayments on the island's north and south shores, as well as the Peconic River and Estuary on the island's eastern end. In the 1800s, several factors (unregulated trapping, water pollution, and habitat loss) caused a dramatic decline in otter populations throughout its range in North America and local extirpations in many areas, including Long Island. Conservation laws enacted in the early 1900s enabled remnant otter populations to expand and re-colonize former habitat. Little is known about the current status and distribution of river otters on Long Island, a region that poses formidable challenges for the natural re-colonization of extirpated wildlife because of its geographic location and development patterns. An informational flyer was distributed to natural resource and park staff, local media, and the general public to solicit data on otter sightings and roadkills. This data, along with historical information and knowledge of otter habits, was used to map 144 potential otter latrine sites on Long Island. Each potential latrine site was surveyed during the winter (January through March) of 2008. Twenty-seven sites were documented as active otter latrine sites, with one cluster of sites near the western end of the island exhibiting evidence of successful breeding. Although the island's river otter population appears to be quite small, and much suitable habitat is unoccupied, river otters are re-colonizing Long Island.

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INTRODUCTION

The river otter (*Lontra canadensis*) is a large member of the weasel family (Mustelidae) that once inhabited rivers, lakes and tidewaters in all U.S. states except Hawaii and in every Canadian province. Several factors (unregulated trapping, water pollution, and habitat loss) caused a dramatic decline in otter populations in many areas and local extirpations in others. By the early 1900s, otters had been completely extirpated from 11 states and the Canadian province of Prince Edward Island (Nilsson, 1980).

Conservation laws enacted in the early 1900s, including trapping limits and seasons, enabled remnant otter populations to expand and re-colonize former habitat. Dispersal of river otters into former habitat occurs both by swimming interconnected waterways and by overland travel to reach isolated waterbodies and to cross into new watersheds. Although a semi-aquatic mammal and excellent swimmer capable of making long open water crossings, river otters generally forage in shallow water and do not venture far offshore. A study in Alaska documented maximum open water crossings of 6.5 km (4 miles) in length (Blundell et. al., 2002).

Recognizing the limits of natural recolonization and to assist the otter's recovery, 21 states and 1 Canadian province have implemented river otter reintroduction projects since the 1970s (Raesly, 2001). Although otter populations have recovered in many areas, it is still not found in large areas of its historic range (Serfass, 2002).

River otters were once found throughout New York State, including many of Long Island's fresh and saltwater ponds, creeks, and bays. By the early 1800s, they were considered extirpated from Long Island (DeKay, 1842) and most of the state outside of the Adirondacks (NYSDEC (a). undated). However, several records exist of otters killed between 1875 and 1901: one in Yaphank (probably the Carmans River), one in the Carmans River, one in the Peconic River near Calverton, and one in Patchogue (Helme, 1902).

New York State's otters were protected by law for nine years (1936-1945), after which time the NYSDEC set season lengths and catch limits for different regions of the state. By the mid 1990s, although its status was secure in New York State as a whole, the otter was still missing from a large area of former range in west-central New York and its status on Long Island was unknown (Figure 1). Despite the fact that they were slowly migrating into west-central New York from healthy populations in the Adirondacks and Catskills, a reintroduction project (called the New York State River Otter Project) was established in 1995 to accelerate this process by several decades. Over the years 1995 – 2000, 279 otters trapped elsewhere in the state were released at nine sites in west-central New York. Initial monitoring results indicate that the project was a success (American Museum of Natural History, undated).

The last survey of river otters on Long Island was done by Paul Connor as part of a general survey of Long Island's mammals over the years 1960-1963. No otters or otter sign were encountered at that time. In his report, Connor noted that naturalist Roy Latham documented several otter sightings in the Montauk area in the 1920s at Oyster Pond, Big Reed Pond, and Great Pond (a.k.a. Lake Montauk). Connor also described several reliable sightings of single otters made by others in the 1950's: on Shelter Island, the Peconic River, the north shore of Nassau County, and at two locations on the Great South Bay. Connor and others surmised that these sightings were of individuals that had swum across Long Island Sound from Connecticut, which had a relatively large and healthy population of otters (Connor, 1971).

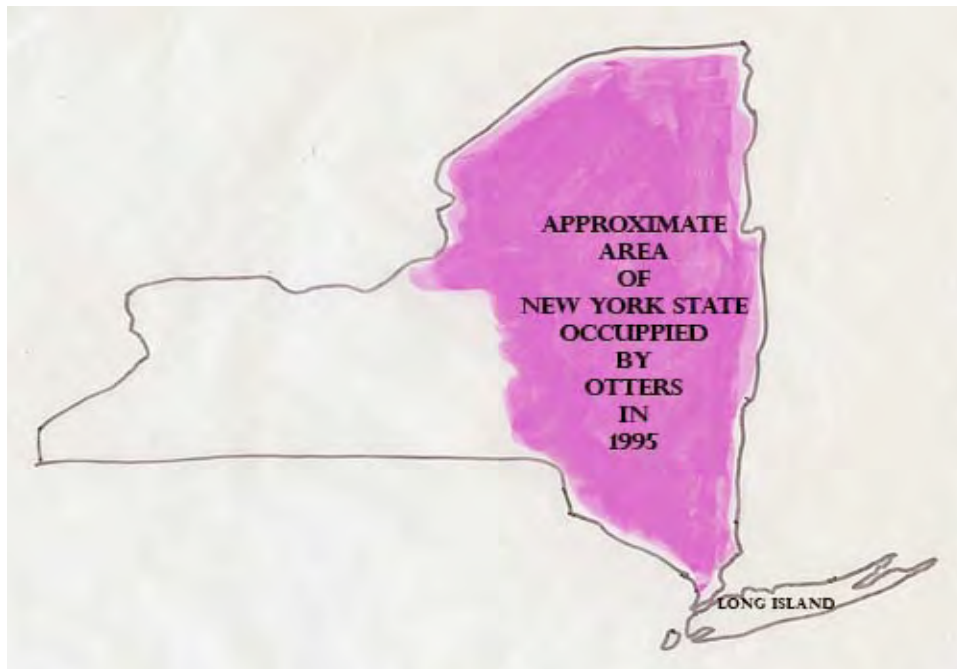


Figure 1. Distribution of River Otters in New York State in 1995 (NYSDEC (a), undated.).

In the years since Connor's survey, there have been occasional sightings of otters on Long Island, as well as several reports of them being killed by motor vehicles and a few accidental captures in trap gear. This information was not found in one source, but was collected over the last twenty years from several documents, wildlife agency staff, local naturalists, and nuisance trappers. Despite the occasional sightings and roadkills on Long Island, the status and distribution of otters in this area's fresh and brackish water environments is unknown (NYSDEC (b), undated).

Of the seven documented otters killed by motor vehicles, three were found in the Oyster Bay area (1998, 2000 and 2005), one 1.2 mile south of Mt. Sinai Harbor in Brookhaven (1999), one near the Carmans River on the service road between the Southern State Parkway and Southaven County Park (early 1990s), one on CR. 111 Brookhaven near a tributary of the Peconic River (2006), and the most recent on Rte. 48 in Greenport (2007). Of the four documented trapped otters, one was caught in a fish trap in Montauk (1969), one was accidentally caught in a leg-hold trap set for muskrat in Water Mill (early 1990s), one was caught in a box-style trap in Greenport (2001), and one was caught in a backwater of the Nissequogue River near Sunken Meadow State Park in a trap set for raccoon. The causes of death for two other documented otters, one found in a sump on the south shore in Islip (2005) and another found on the beach of Fort Pond Bay in Montauk (2008), is unknown (Masi, pers. comm., and Bottini, unpubl. data). Roadkill and trap data can be found in Appendix II.

STUDY AREA

Long Island is located in the southeastern corner of New York State. It is 120 miles long, has a maximum width of 23 miles, and is oriented lengthwise in an east-west direction (Figure 2). The western half of the island is very developed, with two boroughs of New York City (Brooklyn and Queens) occupying 20 miles of its extreme west end, which is bounded by the tidewaters of the East River and New York Harbor. The eastern half of the island is less developed, with large tracts of open space in the Pine Barrens region and on the narrow points of land (the North and South Forks) enclosing the Peconic Bays – Gardiners Bay Estuary.

The island's coast includes many bays and tidal creeks totaling several thousand linear miles of shoreline. These tidewaters are linked, as one moves inland, to freshwater creeks, ponds, marshes and swamps, including the island's four major rivers: the Nissequogue River (flowing north into Long Island Sound), the Carmans River and Connetquot River (both flowing south into the Great South Bay), and the Peconic River (the island's longest and flowing east into Peconic Bay).

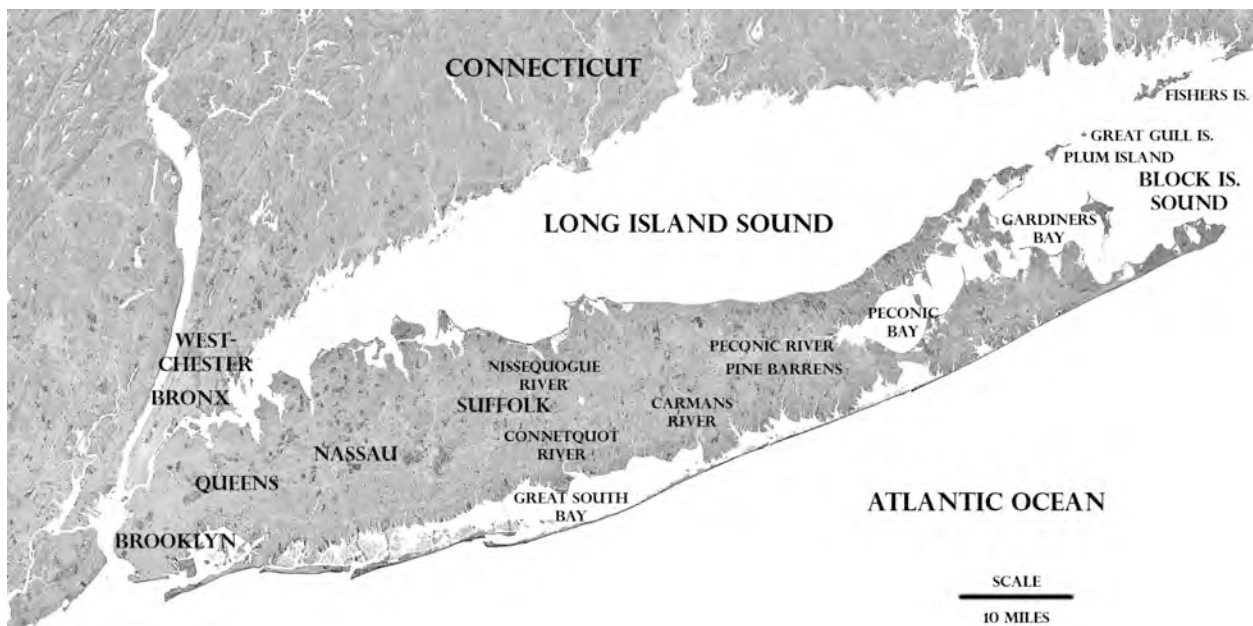


Figure 2. Map of Long Island, New York.

The island's north shoreline abuts Long Island Sound, which separates the island from Westchester County (NY) and Connecticut. Nine major bays lead landward from the Sound to freshwater creeks and ponds, including one of Long Island's four major rivers: the Nissequogue. These north shore bays are all located on the western half of the island.

Most of the island's south shore borders a series of narrow, long, shallow bays that, in turn, are separated from the Atlantic Ocean by barrier beach islands and spits. Two of the island's other major rivers flow south into the largest of these embayments — the Great South Bay — located near the east-west midpoint of the island.

Long Island is closest to the mainland at its highly urbanized western end, where it is separated from the Bronx (also highly urbanized) by the East River (0.5 mile wide at its narrowest point between Long Island and the Bronx). This combination of factors — being an island, and having dense development where it is closest to the mainland — poses a significant challenge for many terrestrial wildlife species that might otherwise recolonize the island.

The closest known river otter populations are found in Westchester County and coastal Connecticut. The shortest open water crossing from the Westchester County coast is 2.5 miles (4 km) across the marine waters of Long Island Sound to Sands Point (Nassau County). This open water crossing could be reduced via a series of small islands located between Westchester and Pelham Bay Park on the mainland, and Sands Point. The shortest distances between Connecticut and Long Island are the 5 mile (8 km) crossing of Long Island Sound between Stamford (CT) and Lloyd Neck (western Suffolk County) and the 8 mile (13 km) crossing between the Connecticut River and Orient on the eastern tip of the island's north fork. A longer route between Connecticut and eastern Long Island that utilizes an archipelago of islands (Fishers, Great Gull, Plum) has an open water crossing of 4.5 miles (7.25 km), which is very close to the published maximum open water crossing listed for *Lontra Canadensis* (Blundell et. al., 2002).

METHODS

River otters are elusive, difficult to observe in the wild, and have large home ranges, making them difficult to census. The most commonly used census techniques for river otters are trapper surveys and harvest records, track surveys, and latrine surveys. Since trapping otters is prohibited on Long Island, trapper surveys and harvest records are not a feasible option for this area. Reliable track surveys depend on consistent snow cover, which Long Island lacks. Therefore, latrine surveys are the most reliable census technique for Long Island.

Otter latrines are sites where otters leave their scat and a clear or yellow-white, jelly-like, anal secretion. These sites are often found where otters must exit the water to get around a dam or other obstacle, where they exit the water to travel overland to reach another pond or creek, on points of land that jut into a waterway, at the confluence of tributary streams, and on small islands (Kulish, 1984). They are generally located within a few meters of the shoreline (Swimley et. al. 1998).

In northern latitudes, otter latrine surveys are best conducted over the winter months. Otter marking activities at latrine sites peak during the winter mating season. Their scat contains a higher proportion of fish at this time of year, minimizing confusion with raccoon (*Procyon lotor*) scat, which resembles otter scat when both are feeding on crayfish (Serfass et al. 1990, Serfass 1994). The lack of leaves and herbaceous cover during winter also makes surveying more efficient.

Field surveys for evidence of otter sign (scat, tracks, and scent mounds) were conducted over three months (January, February and March) in 2008. Areas selected for field surveys were determined based on the following:

- 1) historical sighting information as found in Helme (1902) and Connor (1971);
- 2) roadkill and sighting information obtained from park and preserve managers and field biologists from federal, state, county, town and private agencies and organizations, and local naturalists (a list of organizations, agencies and individuals contacted is found in Appendix I);
- 3) otter sightings reported by the general public (information on river otter habits, habitat, and identification, including where to report sightings and sign, was distributed to the public through flyers, press releases, website postings, and public presentations); and
- 4) review of aerial photographs and topographic maps to identify the features most likely to be used as latrine sites by otters (points of land, closest overland routes between waterbodies, dams, and small islands).

Evidence of otters was documented with photographs, and each latrine site was identified and referenced with UTM coordinates using a Garmin GPS map76Cx unit.

RESULTS

Reports of river otter sightings (27), roadkills (7), and accidentally trapped otters (3) dating back to 1983 were received and mapped (Figure 3). Based on this information and other historical information found in Helme (1902) and Connor (1971), 144 potential latrine sites were identified on topographic maps and aerial photographs, and surveyed over the course of 150 hours in the field (Appendix III. Survey Results of Potential Otter Latrine Sites).

Twenty-four otter latrine sites were documented and mapped (Figure 4 and Appendix IV: Maps A through J). Twenty-two were clustered in three distinct areas (Mill Neck – Oyster Bay area, Nissequogue River watershed, and Greenport – Shelter Island – northwestern East Hampton in the Peconic Estuary) such that each of these three areas could represent the territory of a single otter. The largest number of individual scats recorded (>70) was at the four Mill Neck latrine sites, all located within 1 km (0.6 mile) of one another. The large number of individual scats at the Mill Neck site, the time of year they were noted, and the number of tracks and fresh scat documented within 36 hours of a snowfall, all suggest that the Mill Neck site may have hosted a breeding pair and young during 2008.

In August 2008, Nathan Roberts at Cornell University reported the results of a necropsy on an otter killed by a motor vehicle in Greenport on the North Fork of eastern Long Island in March 2007. This otter was a female with two fresh placental scars, an indication that it had recently given birth to two pups in that area. The site of this roadkill is less than two miles (<1.2 km) from the three latrine sites found at Arshamomaque Preserve. Otter pups require a relatively long period of parental care and those pups, most likely less than one month old in March, would have also perished.

More than half of the latrine sites were found on watersheds linked to, or in close proximity to (<0.5 mi), the island's north shore. Latrine sites were equally distributed between the western half of Long Island (10) and eastern Long Island (14). No well-established otter latrine sites could be found on Long Island's south shore, or on its longest river, the Peconic, despite the presence of suitable river otter habitat, large areas of preserved open space, and historical populations of otters in those areas.

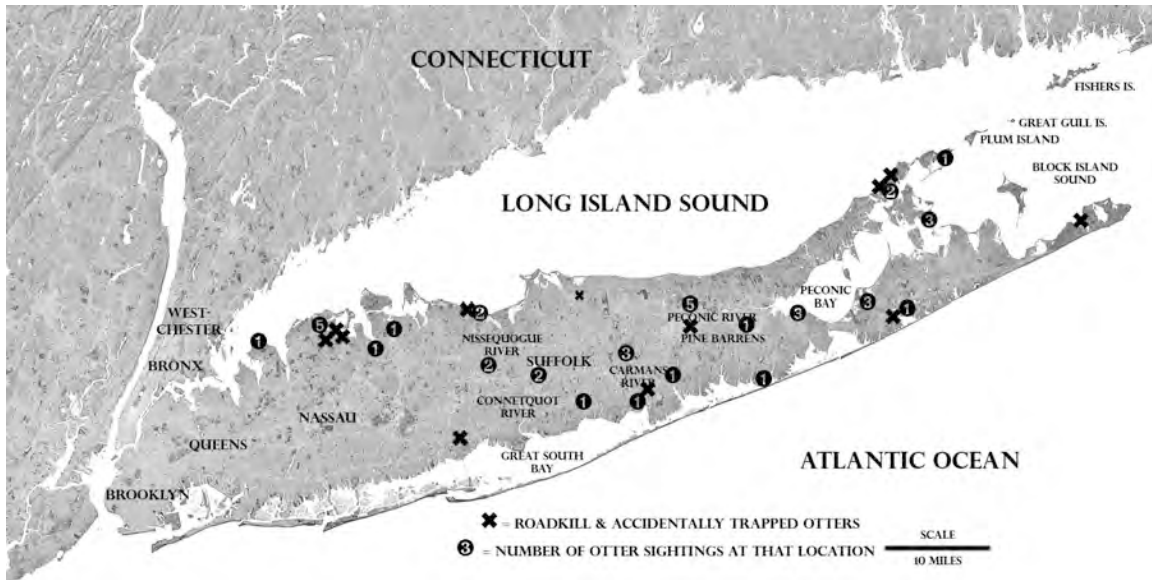


Figure 3. Locations of otter sightings, roadkills and accidental trappings.

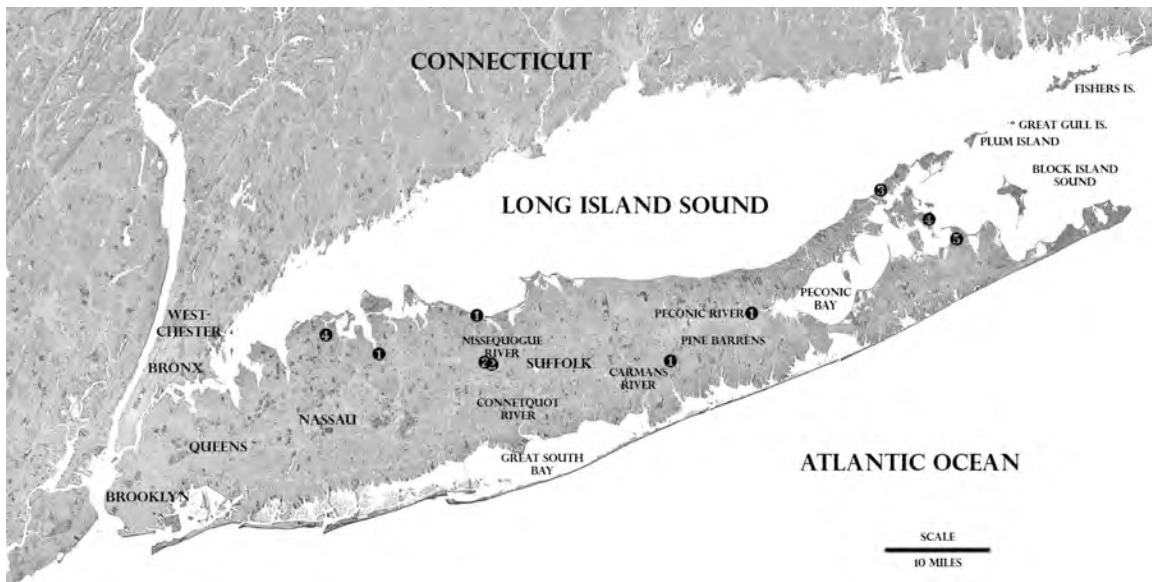


Figure 4. Locations of otter latrines, and number of latrine sites at each.

DISCUSSION

Despite a number of formidable obstacles, river otters have gained a foothold on the north shore of Long Island. The number and distribution of otter latrine sites suggests that otters are recolonizing Long Island from populations originating in Westchester County, New York, and coastal Connecticut. It is possible that young otters originating in those areas periodically disperse westward along the north shore of Long Island Sound to Westchester County and Pelham Bay Park in the Bronx where, using the series of small islands linking that coast with Long Island's Kings Point and Sands Point, they continue eastward to suitable, unoccupied habitat on Long Island's north shore. It is also possible that a few

young otters from Connecticut are reaching eastern Long Island by way of the archipelago of islands extending southwest from Fishers Island to Plum Island and Orient Point. Although otters show a preference for foraging in shallow water and generally avoid long open water crossings, it is not known whether dispersing young seeking unoccupied habitat adhere strictly to those general rules. Otters are excellent swimmers and are certainly capable of crossing Long Island Sound at its widest point.

Although otter latrine sites are widely distributed throughout the island, otter use of these sites, as evident by the number of scats present at each, suggests that some of these areas (e.g. Forge River and Little River sites) do not have successful breeding or breeding pairs.

Scat and track surveys are useful for documenting the presence and distribution of river otters, but these surveys do not provide reliable estimates of population size. For example, the five latrine sites documented in the Town of East Hampton on the South Fork, the four sites found on Shelter Island, and the three latrine sites on the North Fork in Southold Town, are all within 12 miles of one another and might represent the territory of a single otter.

However, based on the distribution of latrine sites, the number of fresh scats and tracks, and the maximum home ranges of river otters, scat and track surveys can provide a conservative estimate of the minimum number of otters in an area. This survey estimates that there are at least eight river otters inhabiting Long Island: four on the north shore of Nassau County, one in the Nissequogue River watershed, one in the west end of the Peconic Estuary, one on the south shore, and one in the Southold – Shelter Island – East Hampton area.

Many wildlife-vehicle collisions go unreported, and many fatally injured animals travel some distance from roads before they perish. This results in the number of documented roadkilled animals being a small percentage of the actual number of fatalities from vehicle collisions. Although the actual number of river otters on Long Island is unknown, the number of documented roadkills over the past decade (6) suggests that this may be a significant cause of mortality among otters, and a possible impediment to their re-colonization of the island. An inspection of the roadkill sites revealed that half occurred where otters left the water to travel around dams and small culverts. Some of these could be modified to allow for the safe passage for otters.

In this study, both natural resource staff and the general public provided valuable information that was very helpful in directing the survey effort. Although a number of woodchuck, raccoon and muskrat sightings were received, a large percentage of the reports were accurate. These resources could be better utilized in other wildlife research on Long Island if there existed a well-publicized clearinghouse for wildlife sightings, roadkills, and incidental captures.

FURTHER RESEARCH

Long Island's river otter population should be monitored by checking latrine sites and verifying new sightings to determine trends in distribution. Recent advances in DNA fingerprinting techniques have enabled biologists to estimate the population size of elusive and wide-ranging wildlife species, such as river otters, by collecting and analyzing scat. This information could also be used to determine home range sizes, and dispersal routes and distances of young otters. This data would be a valuable addition to our knowledge of river otters' use of estuarine habitats, a topic on which there is no published information outside of studies on the west coast.

As a top-of-the-food-chain predator, the river otter serves a useful ecological role and its presence in an ecosystem is viewed by biologists as a sign of the ecological health of that ecosystem. The NYSDEC has collected tissue samples from harvested otters in the state, and analyzed those tissues for environmental contaminants (Mayack, 2006). Tissue samples from Long Island's roadkilled otters should be archived and analyzed for comparison purposes, as well as to provide baseline information on Long Island's otter population.

Although otters appear to be slowly recolonizing former habitat on Long Island, many areas of suitable otter habitat are currently unoccupied. Consideration should be given to assisting the recovery of this valuable "ambassador of wetlands" on Long Island via a reintroduction program. Telemetry studies associated with a reintroduction program could provide valuable information on river otter's use of estuarine habitat on the eastern seaboard. Consideration should also be given to modify dams and culverts where otters are forced to cross roads. Roadkills may be an important limiting factor in the otter's recovery here on Long Island.

ACKNOWLEDGEMENTS

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North American river otter researchers Tom Serfass, Merav Ben-David, and Scott Shannon offered useful advice and answered many questions. Nathan Roberts of Cornell University provided valuable information based on his laboratory analyses of several otters killed on Long Island. Dave Mayack (NYSDEC) provided advice on future research. Gordon Batchellor (NYSDEC) and Pauk Rego (CTDEP) provided recent otter harvest data from Westchester County and Connecticut, respectively.

Stacy Petzel created many of the maps, Jim Monaco helped with formatting the spreadsheets and creating a document that could be e-mailed, and Judy Chrstrup reviewed and edited the report.

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APPENDIX I: LIST OF AGENCIES AND ORGANIZATIONS CONTACTED FOR OTTER ROADKILL AND SIGHTING INFORMATION

FEDERAL, STATE, AND COUNTY AGENCIES

USFWS [Steve Finn, Laurie Boullianne]
Brookhaven National Laboratory [Tim Green]
NYSDEC Bureau of Wildlife, Region 1 [Lisa Masi; Dan Rosenblatt]
NYS OPRHP [Tom Lyons, Pam Otis, Gary Lawton]
Central Pine Barrens Commission [Ray Corwin; Karen Eichelberger]
Suffolk County Parks [Bill Sickles, Nick Gibbons; Derek Rogers]
Nassau County Parks [Al Lindberg]
Suffolk County Office of Ecology [Kimberly Paulson]
Suffolk County Vector Control [Dominick Ninivaggi]

TOWN NATURAL RESOURCE and PLANNING DEPARTMENTS

Southold Town [Jim McMahon; John Sepenowski; Melissa Spiro]
East Hampton Town [John Aldred; Larry Penny; Scott Wilson; Brian Frank]
Shelter Island Town [Danielle LiCausi]
Southampton Town [Laura Smith, Marty Shea]
Riverhead Town [Joe Hall]
Brookhaven Town [John Turner]
Islip Town [Greg Dawson]

ENVIRONMENTAL ORGANIZATIONS

The Nature Conservancy [Mike Laspia, Bruce Horwith, Marilyn Jordan; Mike Schiebel]
Peconic Baykeeper [Kevin McAllister]
Sierra Club: Long Island Chapter
South Fork Natural History Society [Jim Ash]
Long Island Soundkeeper
Long Island Pine Barrens Society
North Shore Land Alliance [Lisa Ott; Jane Jackson]
North Shore Conservancy [Tom Hornosky]
Cornell Cooperative Extension
South Shore Estuary Reserve [Clare O'Reilly]
Jamaica Bay Guardian [Don Reipe]
Riverhead Foundation [Rob Di Giovanni; Kim Durham]
Cold Spring Harbor Fish Hatchery [Norm Soule]
Fire Island Ecology
Quogue Wildlife Refuge [Marisa Nelson]
Group for the East End [Bob DeLuca and Steve Biasetti]
Peconic Land Trust [Graham Hawkes]
South Fork Natural History Society [Jim Ash]
Long Island Botanical Society [Eric Lamont]
Concerned Citizens of Montauk
Hike Long Island [Ken Kindler]
Long Island Greenbelt Trails [Nancy Manfredonia, George Fernandez, Tom Casey, Lee McAllister]
Southampton Trails Preservation Society [Glorian Berk, Tony Garro, Ken Beiger]
East Hampton Trails Preservation Society [Eva Moore, Ray Hartjen]

UNIVERSITIES

Long Island University [Paul Forestell, Howard Reisman; Matt Draud]
Hofstra University [Russell Burke]
Dowling College / Coastal Research and Education Society of Long Island [Art Kopelman]

PADDLING ORGANIZATIONS and SHOPS

Sea Kayaking Skills and Adventures LTD. [Elizabeth O'Connor]
Long Island Paddlers [Elizabeth Marcellus and Steve Berner]
Shelter Island Kayak [Jay Damuk]
Main Beach Surf and Sport [Lars Svanberg]
Glacier Bay Kayak
Peconic Paddler [Jim Dreeben]
Amagansett Beach and Bike [Lee Oldak]
Weekend Warrior Kayak [Ed Cashin and David Lys]
Eagle Neck Kayak [Doug Murphy]
The Dinghy Shop

APPENDIX II: ROADKILL AND TRAP DATA

- 1) DATE: approx. 1990. ROADKILL
LOCATION: Carmans River; service road N. of Rte. 27 and S. of Southaven County Park.
- 2) DATE: approx. 1995 TRAPPED
LOCATION: small marsh at intersection of Flying Pt. Rd. and Wickapogue Rd., Southampton, near Burnett Creek, Mecox Bay. Caught in muskrat set by Jim Cavanaugh. Had a metal ear tag, but trapper did not get info from it.
- 3) DATE: approx. 1998 ROADKILL MALE 25 lbs.
LOCATION: near intersection of Cleft Rd. and W. Shore Rd, Mill Neck.
- 4) DATE: 4/1/1999 ROADKILL
LOCATION: Rte. 347 W. of Crystal Brook Hollow Rd and S. of 25A, Brookhaven, 1.2 mi. S. of Mt. Sinai Harbor.
- 5) DATE: 6/2000 ROADKILL FEMALE 36 inches total length. Lactating.
LOCATION: Frost Mill Rd (crossing between Lower Frances Pond and Shu Swamp), Mill Neck. Photos by Barbara Conolly.
- 6) DATE: approx. 7/2001 TRAPPED
LOCATION: E. of North St. and Chapel Lane intersection, Greenport [released in Peconic River].
- 7) DATE: 2/10/2005 ROADKILL
LOCATION: N. side of W. Main St. near Mill Pond outlet to Oyster Bay Harbor, Oyster Bay.
- 8) DATE: 4/18/2005 CAUSE OF DEATH UNKNOWN
LOCATION: Sump on Commack Rd., S. of Elmwood Rd., Islip. 0.75 mi W. of Guggenheim Lake inlet and 1.7 mi E. of Belmont Lake.
- 9) DATE: 2005 TRAPPED (not recovered; presumed drowned)
LOCATION: Caught in muskrat set in tributary of the Nissequogue River in Sunken Meadow State Park.
- 10) DATE: 2/18/2006 ROADKILL MALE
LOCATION: CR 111 S. of 7-11, Brookhaven. Not far from tributary of Peconic River.
- 11) DATE: 3/26/2007 ROADKILL FEMALE w/ 2 fresh placental scars.
LOCATION: Rte. 48 and Main St., Greenport near red maple swamp.
- 12) DATE: 5/11/2008 CAUSE OF DEATH UNKNOWN MALE
LOCATION: Found on the shore of Fort Pond Bay, Montauk. Crushed thoracic cavity.

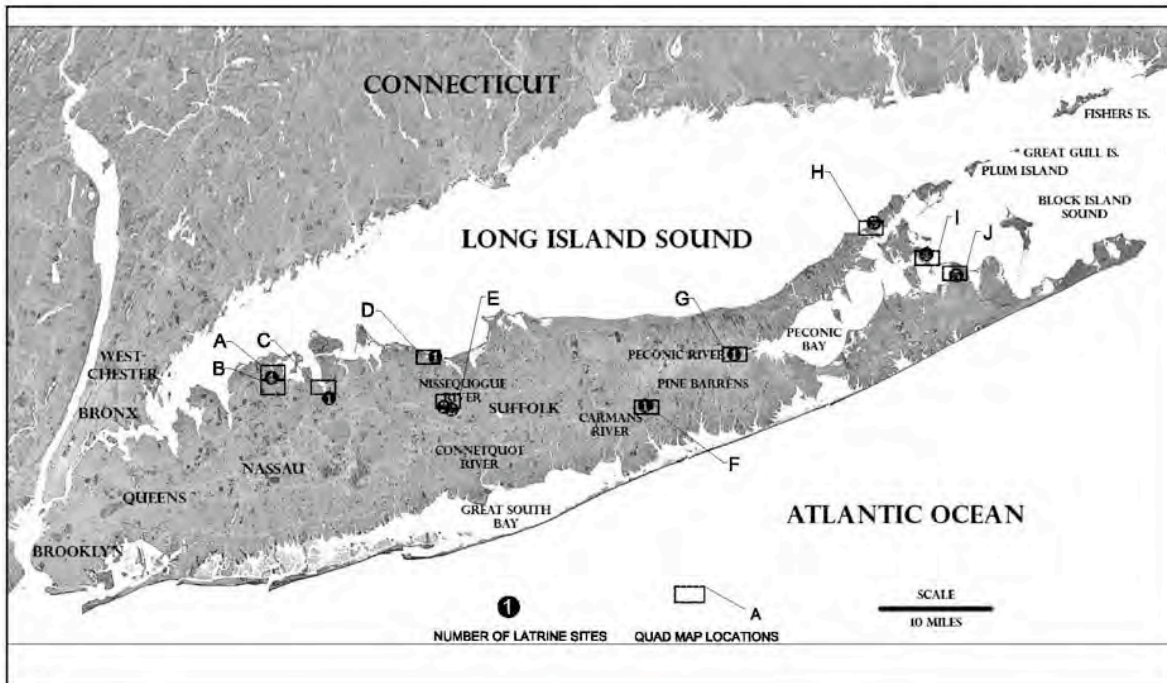
APPENDIX III: SURVEY RESULTS OTTER STUDY 2008 DATA 1

| SITE | ESTUARY | WATERSHED | TOWN | UTM COORDINATES | DATE | SURVEYOR | OTTER SIGN | FIELD NOTES |
|--|-----------------|------------------------|----------------|---------------------|--------------|----------|------------------------|--|
| Oyster Pond: S. point access | Peconic Estuary | Block Island Sound | East Hampton | 19T 0257043 4550596 | Feb 9, 2008 | MB | none | high water - poor survey conditions. |
| Oyster Pond: Ogden's Brook | Peconic Estuary | Block Island Sound | East Hampton | 19T 0257413 4550130 | Feb 9, 2008 | MB | none | high water - poor survey conditions. |
| Oyster Pond: W. of S. pt. access | Peconic Estuary | Block Island Sound | East Hampton | 19T 0256955 4550596 | Mar 16, 2008 | MB | none | fw marsh; good potential latrine site |
| Oyster Pond: SW of S. pt. | Peconic Estuary | Block Island Sound | East Hampton | 19T 0256893 4550571 | Mar 16, 2008 | MB | none | fw marsh. |
| Oyster Pond: NE. of Hetty's Hole | Peconic Estuary | Block Island Sound | East Hampton | 19T 0256846 4550493 | Mar 16, 2008 | MB | none | 20+fish&1 berry scats in dense phrag&on dead phrag mats; coon? |
| Oyster Pond: Hetty's Hole spit | Peconic Estuary | Block Island Sound | East Hampton | 19T 0256777 4550454 | Mar 16, 2008 | MB | none | pond low; checked sand spit for tracks and wood edge for latrine. |
| Little Reed Pond | Peconic Estuary | Lake Montauk | East Hampton | 19T 0254667 4550849 | Jan 3, 2008 | MB/CV | none | checked both sides of East Lake Drive |
| Little Reed Pond | Peconic Estuary | Lake Montauk | East Hampton | 19T 0254667 4550849 | Feb 9, 2008 | MB | none | checked East Lake Drive culvert area. |
| Little Reed Pond | Peconic Estuary | Lake Montauk | East Hampton | 19T 0254767 4551205 | Feb 9, 2008 | MB | none | checked long, narrow, sandy peninsula. |
| Big Reed Pond | Peconic Estuary | Lake Montauk | East Hampton | 19T 0255091 4551491 | Feb 9, 2008 | MB | none | checked area at culvert under access road. |
| Osborne's Island | Peconic Estuary | Lake Montauk | East Hampton | 19T 0254307 4548923 | Jan 3, 2008 | MB/CV | none | long, narrow peninsula at SW corner of lake |
| Stepping Stones Pond | Peconic Estuary | Lake Montauk | East Hampton | 19T 0254142 4548523 | Jan 3, 2008 | MB/CV | none | area adjacent to Old West Lake Drive |
| Stepping Stones Pond | Peconic Estuary | Lake Montauk | East Hampton | 19T 0254142 4548523 | Feb 9, 2008 | MB | none | checked area adjacent to Old West Lake Drive. |
| Fresh Pond, Amagansett | Peconic Estuary | Gardiners Bay | East Hampton | 18T 0742630 4542313 | Jan 3, 2008 | MB/CV | none | point of land on pond's south side |
| Scoy Pond outlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732770 4545383 | Jan 3, 2008 | MB/CV | SCAT | fish scales and bones near beaver dam. |
| Scoy Pond outlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732770 4545383 | Feb 9, 2008 | MB | SCAT (old) | old sign barely visible; no new sign. |
| Scoy Pond outlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732770 4545383 | Feb 16, 2008 | CV | no new | checked beaver dam (old scat visible) and w. pines E. of dam. |
| Scoy Pond outlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732770 4545383 | Feb 24, 2008 | MB | none | fresh beaver cutting and tracks in snow. |
| Scoy Pond outlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732770 4545383 | Mar 15, 2008 | MB | SCAT (1) & scrape | fresh scat (fish) on Pa. sedge 1 m. from water. |
| Scoy Pond inlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733155 4544918 | Jan 3, 2008 | MB/CV | SCAT | near intersection with Scoy Pond Rd. (unpaved). |
| Scoy Pond inlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733155 4544918 | Feb 9, 2008 | MB | none | no evidence of earlier scat. |
| Scoy Pond inlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733155 4544918 | Feb 16, 2008 | CV | no new | |
| Scoy Pond inlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733155 4544918 | Feb 24, 2008 | MB | none | |
| Scoy Pond inlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733155 4544918 | Feb 25, 2008 | CV | no new | |
| Scoy Pond inlet | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733155 4544918 | Mar 15, 2008 | MB | SCAT (1) & scrape | 3 m. from water; fish. |
| Scoy Pond beaver lodge | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733054 4545022 | Mar 15, 2008 | MB | none | one beaver exited lodge and swam nearby making warning slaps. |
| Scoy Pond south side point | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732990 4545098 | Jan 3, 2008 | MB/CV | SCAT (2) & JELLY (1) | scat piles (fish); lots of beaver cuttings. |
| Scoy Pond south side point | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732990 4545098 | Feb 9, 2008 | MB | SCAT & JELLY (OLD) | |
| Scoy Pond south side point | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732990 4545098 | Feb 12, 2008 | CV | no new | |
| Scoy Pond south side point | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732990 4545098 | Feb 25, 2008 | CV | no new | |
| Scoy Pond south side point | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732990 4545098 | Mar 1, 2008 | CV | no new | old JELLY still visible. |
| Scoy Pond south side point | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732990 4545098 | Mar 15, 2008 | MB | SCAT (1) & scrape (2) | one scrape with scat (fish); one scrape with jelly-like mucous. |
| Scoy Pond N. side access | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732908 4545207 | Mar 15, 2008 | MB | SCAT (2) & scrape | scat (fish); 1 fresh, 1 older) 3 m. from water. |
| Scoy Pond headwaters 1 | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0733080 4544808 | Feb 27, 2008 | CV | SCAT (3) & JELLY (old) | 1st small open water area upstream of pond inlet. |
| Scoy Pond headwaters 2 | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732905 4544758 | Mar 1, 2008 | MB | none | checked S. side of Little Scoy & upstream pond & ditch between. |
| Scoy Pond headwaters 3 | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732775 4544785 | Mar 1, 2008 | CV | none | circumnavigated last small pond upstream from Scoy Pond. |
| Alewile Creek, Cedar Point C.P. | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732770 4545953 | 2 / ? /08 | CV | none | checked S. side of Alewile Creek. |
| Cedar Point Pond | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0732070 4547153 | Mar 1, 2008 | CV | none | located in Cedar Pt. Co. Park. |
| Staudingers Pond | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0730837 4551610 | Jan 3, 2008 | MB/CV | none | checked earthen dam separating pond from NW Creek. |
| Staudingers Pond | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0730837 4551610 | Feb 12, 2008 | CV | none | checked length of earthen dam. |
| Staudingers Pond | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0730837 4551610 | Feb 16, 2008 | CV | none | checked length of earthen dam. |
| Staudingers Pond | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0730837 4551610 | Feb 25, 2008 | CV | none | checked length of earthen dam. |
| Staudingers Pond | Peconic Estuary | Northwest Harbor | East Hampton | 18T 0730837 4551610 | Mar 1, 2008 | CV | none | checked length of earthen dam. |
| Sanctuary Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0727246 4547506 | Jan 20, 2008 | MB | SCAT (2) | trail from director's house to point on SW. side of pond. |
| Sanctuary Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0727246 4547506 | Feb 16, 2008 | MB/CV | SCAT (old) | trail to point on SW. side of pond. |
| Sanctuary Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0727120 4547542 | Jan 20, 2008 | MB | none | east end near access road and Log Cabin Creek. |
| Sanctuary Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0727120 4547542 | Feb 16, 2008 | MB/CV | none | checked most of shoreline W. of latrine pt. |
| Log Cabin Creek, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0726941 4547587 | Jan 20, 2008 | MB | none | southeast shoreline closest to access road. |
| Log Cabin Creek, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0726941 4547587 | Feb 16, 2008 | MB/CV | none | access rd. near Log Cabin Creek. |
| Bass Creek, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728120 4547310 | Jan 20, 2008 | MB | none | area near road / culvert linking Sanctuary Pond and Bass Creek. |
| Bass Creek, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728120 4547310 | Feb 16, 2008 | MB/CV | none | area near road / culvert linking Sanctuary Pond and Bass Creek. |
| Plum Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728401 4547741 | Jan 20, 2008 | MB | SCAT (2) | north shore near rowboat. |
| Plum Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728401 4547741 | Feb 16, 2008 | MB/CV | SCAT (old) | N. side of pond near rowboat access. |
| Plum Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728343 4547554 | Jan 20, 2008 | MB | SCAT (5) | island in middle of pond. |
| Plum Pond, Mashomack | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728343 4547554 | Feb 16, 2008 | MB/CV | SCAT (old) | island in middle of pond. |
| Ponds S. of Plum Pond | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728498 4547035 | Feb 16, 2008 | MB/CV | none | series of small ponds S. of Plum and N. of Majors Harbor. |
| Ditch S. of Plum Pond | Peconic Estuary | Shelter Island Sound | Shelter Island | 18T 0728484 4547216 | Feb 16, 2008 | MB/CV | SCAT (2) | fresh (fish) on marsh grasses near ditch leading into Bass Creek. |
| Silver Lake | Peconic Estuary | Pipes Cove | Southold | 18T 0721078 4553937 | Jan 15, 2008 | MB/CV | none | west side of lake and dreem |
| Moore's Dreen | Peconic Estuary | Pipes Cove | Southold | 18T 0720533 4553869 | Jan 15, 2008 | MB/CV | none | at Moore's Lane |
| Moore's Dreen | Peconic Estuary | Pipes Cove | Southold | 18T 0719857 4552847 | Jan 15, 2008 | MB/CV | none | Skipper Horton Park and dreem north of Rte. 25 |
| Dam Pond | Peconic Estuary | Orient Harbor | Southold | 18T 0724300 4556787 | Jan 15, 2008 | MB/CV | none | both sides of bridge and sandt point on NW side. |
| Trumans Beach | Peconic Estuary | Orient Harbor-LI Sound | Southold | 18T 0724977 4557860 | Jan 15, 2008 | MB/CV | none | from NYSDEC parking area to west end of Dam Pond. |
| Narrow River Road | Peconic Estuary | Hallock Bay | Southold | 18T 0728050 4557624 | Jan 15, 2008 | MB/CV | none | freshwater pond near marina (checked both sides of road there). |
| Narrow River | Peconic Estuary | Hallock Bay | Southold | 18T 0728195 4558670 | Jan 15, 2008 | MB/CV | none | dike across river |
| Orient Beach State Park | Peconic Estuary | Hallock Bay | Southold | 18T 0730965 4558849 | Jan 15, 2008 | MB/CV | none | dike at north end of Little Bay. |
| Arshamomaque Preserve | Peconic Estuary | Pipes Cove | Southold | 18T 0718896 4552323 | Feb 14, 2008 | MB | none | observation tower area; several sightings from here in 10/2005. |
| Arshamomaque Preserve | Peconic Estuary | Pipes Cove | Southold | 18T 0718769 4552560 | Feb 14, 2008 | MB | none | small, deep man-made pond. |
| Arshamomaque Preserve | Peconic Estuary | Pipes Cove | Southold | 18T 0718924 4552174 | Feb 14, 2008 | MB | none | high knoll protruding into the S. end of E. pond. |
| Arshamomaque Preserve outlet | Peconic Estuary | Pipes Cove | Southold | 18T 0719135 4551924 | Feb 14, 2008 | MB | none | checked both sides of culvert under Rte. 25. |
| Arshamomaque Preserve outlet | Peconic Estuary | Pipes Cove | Southold | 18T 0719275 4551738 | Feb 14, 2008 | MB | none | intersection of outlet and LIRR (tidal salt marsh). |
| Arshamomaque Pres. N. island | Peconic Estuary | Pipes Cove | Southold | 18T 0718906 4552241 | Mar 7, 2008 | MB | SCAT (11) | old scat (fish) on oak-tupelo island S. of observation tower. |
| Arshamomaque Preserve outlet S. of Arshamomaque Preserve | Peconic Estuary | Pipes Cove | Southold | 18T 0718829 4552105 | Mar 7, 2008 | MB | SCAT (5) & scrape (3) | old scat (fish) on scrapes 1-3 m. from water on W. side of outlet. |
| Arshamomaque Pres. S. island | Peconic Estuary | Pipes Cove | Southold | 18T 0719024 4551914 | Mar 7, 2008 | MB | none | checked forest on W. side of outlet near Rte. 25. |
| Solomon's Creek | Atlantic Ocean | Sagg Pond | Southampton | 18T 0728440 4534989 | Jan 24, 2008 | MB | none | checked dam in TNC Sagg Pond Preserve. |
| Mill Pond, Water Mill | Atlantic Ocean | Mecox Bay | Southampton | 18T 0722169 4532130 | Jan 24, 2008 | MB | none | Mill Pond Sanctuary (checked both sides of Old Mill Road Rd). |
| Mill Creek tributary | Atlantic Ocean | Mecox Bay | Southampton | 18T 0722308 4531980 | Jan 24, 2008 | MB | none | Checked both sides of Upper 7 Ponds Rd.100 m.W. of Old Mill Rd. |
| Mill Pond outlet | Atlantic Ocean | Mecox Bay | Southampton | 18T 0722633 4532127 | Jan 24, 2008 | MB | none | checked area near culvert under LIRR tracks. |
| Mill Creek tributary | Atlantic Ocean | Mecox Bay | Southampton | 18T 0722354 4531963 | Jan 24, 2008 | MB | none | checked area near culvert under LIRR west of Old Mill Rd. |
| Long Pond, south end. | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0727810 4539163 | Feb 14, 2008 | CV | none | |
| Little Long Pond, east side | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0727610 4539763 | Feb 14, 2008 | CV | none | |
| Ligonee Brook | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0727315 4540740 | Jan 3, 2008 | MB/CV | none | checked upstream of old RR spur to Long Pond. |
| Otter Pond outlet | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0727065 4541502 | Feb 14, 2008 | CV | none | checked bridge area & RR embankment on Upper Sag Harbor Cove. |
| Upper Sag Harbor Cove | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0726999 4541558 | Feb 9, 2008 | MB | none | checked old RR embankment W. of Otter Pond outlet and Main St. |
| Upper Sag Harbor Cove | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0726780 4541413 | Feb 14, 2008 | CV | none | checked along Long Point Rd. and John St. |
| Sims Ave., Sag Harbor | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0725851 4541485 | Feb 14, 2008 | CV | none | checked small pond connected by channel to cove. |
| Ligonee Creek and Brick Kln Rd. | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0726889 4541063 | Feb 14, 2008 | CV | none | |
| Paynes Creek, Sag Harbor | Peconic Estuary | Sag Harbor Coves | Southampton | 18T 0724850 4541134 | Feb 10, 2008 | CV | none | |
| Trout Pond, Noyac | Peconic Estuary | Noyac Bay | Southampton | 18T 0722902 4541377 | Feb 14, 2008 | CV | none | checked dam area and outlet to Mill Creek. |
| Morton N.W.R. | Peconic Estuary | Little Peconic Bay | Southampton | 18T 0721089 4542672 | Feb 9, 2008 | MB | none | FW wetland (Phragmites) draining into Little Peconic Bay. |

APPENDIX III: SURVEY RESULTS OTTER STUDY 2008 DATA 2

| SITE | ESTUARY | WATERSHED | TOWN | UTM COORDINATES | DATE | SURVEYOR | OTTER SIGN | FIELD NOTES |
|--|-----------------|--------------------|--------------|---------------------|--------------|----------|----------------------|--|
| Morton N.W.R. | Peconic Estuary | Little Peconic Bay | Southampton | 18T 0721023 4543076 | Feb 9, 2008 | MB | none | N. side of tidal pond on neck. |
| Morton N.W.R. | Peconic Estuary | Little Peconic Bay | Southampton | 18T 0721023 4543076 | Feb 9, 2008 | MB | none | island in middle of pond. |
| Morton N.W.R. | Peconic Estuary | Noyac Bay | Southampton | 18T 0721176 4542620 | Feb 9, 2008 | MB | none | very small FW pond just N. of salt lagoon on neck. |
| Big Fresh Pond, North Sea | Peconic Estuary | North Sea Harbor | Southampton | 18T 0717523 4533336 | Jan 3, 2008 | MB/CV | none | checked point on west side of outlet. |
| Big Fresh Pond, North Sea | Peconic Estuary | North Sea Harbor | Southampton | 18T 0717143 4533336 | Feb 17, 2008 | CV | none | checked boat access and west to TNC Wolf Swamp Preserve |
| Alewite Dreen | Peconic Estuary | North Sea Harbor | Southampton | 18T 0717540 4533550 | Jan 3, 2008 | MB/CV | none | checked from downstream footbridge to pond. |
| North Sea Alewite Dreen | Peconic Estuary | North Sea Harbor | Southampton | 18T 0717644 4533889 | Mar 3, 2008 | CV | none | checked dreen from North Sea Rd. to Noyac Rd. |
| Hubbard Creek | Peconic Estuary | Peconic Bay | Southampton | 18T 0705431 4529984 | Jan 8, 2008 | MB/CV | none | checked freshwater section at Red Creek Rd. |
| Hubbard Creek | Peconic Estuary | Peconic Bay | Southampton | 18T 0705431 4529984 | Feb 14, 2008 | MB | none | FW section on both sides of Red Creek Rd. |
| Red Cedar Pt. Rd. TNC Preserve | Peconic Estuary | Red Creek Pond | Southampton | 18T 0705648 4531651 | Feb 14, 2008 | MB | none | checked berm /dam separating salt marsh from FW. |
| Mill Creek | Peconic Estuary | Peconic Bay | Southampton | 18T 0703831 4530184 | Jan 8, 2008 | MB/CV | none | checked east, west, and south dams. |
| Cranberry Bog Co. Park | Peconic Estuary | Peconic River | Southampton | 18T 0696170 4530864 | Jan 8, 2008 | MB/CV | none | checked earth berm/dam. |
| Wildwood Lake | Peconic Estuary | Peconic River | Southampton | 18T 0695890 4530040 | Jan 8, 2008 | MB/CV | none | checked outlet (dense cover). |
| Little River dam | Peconic Estuary | Peconic River | Southampton | 18T 0696444 4531584 | Jan 8, 2008 | MB/CV | SCAT (3) | bleached fish scales and bones on bare ground on S. side of dam. |
| Little River dam | Peconic Estuary | Peconic River | Southampton | 18T 0696444 4531584 | Feb 14, 2008 | MB | none | no evidence of scat observed on 1/8/08; washed away by rain. |
| Little River dam | Peconic Estuary | Peconic River | Southampton | 18T 0696444 4531584 | Feb 18, 2008 | CV | none | old scat not visible. |
| Peconic River: Forge Rd. | Peconic Estuary | Peconic River | SH&Riverhead | 18T 0692596 4531623 | Jan 8, 2008 | MB/CV | none | checked long berm on N. side of river and E. side of dam. |
| Peconic River: Mill Rd. | Peconic Estuary | Peconic River | SH&Riverhead | 18T 0694721 4531750 | Jan 8, 2008 | MB/CV | none | also checked area around gauge station. |
| Peconic River: Edwards Rd. | Peconic Estuary | Peconic River | SH&Riverhead | 18T 0690092 4530725 | Jan 8, 2008 | MB/CV | none | dark green scat (no bones or scales) at raccoon latrine SW of dam. |
| upper Peconic River | Peconic Estuary | Peconic River | Riverhead | 18T 0684777 4528232 | Jan 26, 2008 | MB/CV | none | bridge at Manorville Rd. |
| upper Peconic River | Peconic Estuary | Peconic River | Riverhead | 18T 0686054 4528275 | Jan 26, 2008 | MB/CV | none | checked berm (access from LIRR) and sluice W. of Pec. Sport Club. |
| Swan Lake outlet stream | Peconic Estuary | Peconic River | Riverhead | 18T 0686097 4528506 | Jan 26, 2008 | MB/CV | none | checked S. most of earth dams, and confluence with Peconic R. |
| upper Peconic River | Peconic Estuary | Peconic River | Riverhead | 18T 0687529 4530124 | Jan 26, 2008 | MB/CV | none | checked both sides of Connecticut Ave. culverts. |
| Round Pond | Peconic Estuary | Peconic River | Riverhead | 18T 0681501 4530219 | Jan 26, 2008 | MB/CV | none | part of series of shallow ponds in Robert Cushman Murphy C.P. |
| Peasys Pond | Peconic Estuary | Peconic River | Riverhead | 18T 0681934 4530110 | Jan 26, 2008 | MB/CV | none | part of series of shallow ponds in Robert Cushman Murphy C.P. |
| Duck Pond | Peconic Estuary | Peconic River | Riverhead | 18T 0682097 4529606 | Jan 26, 2008 | MB/CV | none | part of series of shallow ponds in Robert Cushman Murphy C.P. |
| Sandy Pond | Peconic Estuary | Peconic River | Riverhead | 18T 0682230 4529410 | Jan 26, 2008 | MB/CV | none | part of series of shallow ponds in Robert Cushman Murphy C.P. |
| North St., Manorville tributary | Peconic Estuary | Peconic River | Brookhaven | 18T 0684394 4527014 | Mar 13, 2008 | MB | none | checked LIRR wetlands (S. of North St., W. of Ryserson, N. of LIE) |
| North St., Manorville pond | Peconic Estuary | Peconic River | Brookhaven | 18T 0683584 4526841 | Mar 13, 2008 | MB | none | checked E. shore of pond; no outlet to Peconic R. |
| Upton Reserve dam | Peconic Estuary | Peconic River | Brookhaven | 18T 0682146 4526351 | Mar 13, 2008 | MB | none | checked area around gravel topped dam. |
| Upton Reserve pond | Peconic Estuary | Peconic River | Brookhaven | 18T 0682071 4527566 | Mar 13, 2008 | MB | none | checked dirt roadbed where pond drains towards Peconic R. |
| North St. dam | Peconic Estuary | Peconic River | Brookhaven | 18T 0682354 4526270 | Mar 13, 2008 | MB | none | earthen dam with cover close to road; good monitoring site. |
| Forest Pond (S. end outlet) | Peconic Estuary | Peconic River | Brookhaven | 18T 0683712 4529762 | Mar 31, 2008 | MB | none | Pt. at S. end has excellent latrine characteristics. |
| Forest Pond (middle "waist") | Peconic Estuary | Peconic River | Brookhaven | 18T 0683648 4529941 | Mar 31, 2008 | MB | none | Upland on both sides pinches pond nearly in half. Good latrine site. |
| Pt. at Forest and Prestons Ponds | Peconic Estuary | Peconic River | Brookhaven | 18T 0683527 4530153 | Mar 31, 2008 | MB | none | checked both sides of both pts.; good latrine characteristics. |
| Linus Pond (Is. on SE shore) | Peconic Estuary | Peconic River | Brookhaven | 18T 0684112 4529057 | Mar 31, 2008 | MB | none | access from Line Rd. |
| Linus Pond: W. shore | Peconic Estuary | Peconic River | Brookhaven | 18T 0684044 4528979 | Mar 31, 2008 | MB | none | checked point of land N. of old dam. |
| Fox Pond - Sandy Pond channel | Peconic Estuary | Peconic River | Brookhaven | 18T 0684555 4529100 | Mar 31, 2008 | MB | none | checked length and both ends of channel. |
| Fox Pond (N. pt.) | Peconic Estuary | Peconic River | Brookhaven | 18T 0684334 4529024 | Mar 31, 2008 | MB | none | checked length of broad pt. |
| North Pond dam, Quogue W. R. | South Shore | Quantuck Bay | Southampton | 18T 0700995 4523704 | Feb 29, 2008 | MB | none | checked earthen dam and broad point on east side. |
| Main Pond dam, QWR | South Shore | Quantuck Bay | Southampton | 18T 0700940 4523072 | Feb 29, 2008 | MB | none | checked top of earthen dam and outlet area just below dam. |
| Main Pond outlet, QWR | South Shore | Quantuck Bay | Southampton | 18T 0700860 4523011 | Feb 29, 2008 | MB | none | checked area at east and west culverts under LIRR; tidal fresh. |
| West Mill Pond - Forge River | South Shore | Moriches Bay | Brookhaven | 18T 0682772 4519602 | Feb 29, 2008 | MB | SCAT (4) | fish; w/in 1 m. of SE side of pond; Barnes Rd. & Montauk Hwy. |
| Carmans River dam | South Shore | Carmens River | Brookhaven | 18T 0678006 4520630 | Feb 29, 2008 | MB | none | checked dam in middle of Southaven Co. Park. |
| Carmans River: fish access | South Shore | Carmens River | Brookhaven | 18T 0678488 4518882 | Feb 29, 2008 | MB | none | checked NYSDEC fish access N. of Montauk Highway |
| Wertheim NWR: west | South Shore | Carmens River | Brookhaven | 18T 0678242 4517951 | Jan 10, 2008 | MB/CV | none | area at intersection of White Oak Trail and tributary of Carmens. |
| Wertheim NWR: north | South Shore | Carmens River | Brookhaven | 18T 0678532 4518331 | Jan 10, 2008 | MB/CV | none | access road (bridge and peninsula S. of LIRR) |
| Connetquot River (Rte. 454) | South Shore | Connetquot River | Islip | 18T 0654732 4517297 | Feb 28, 2008 | MB | none | checked dam on S. side of Rte. 454; culvert 70 m. by 0.75 m. |
| Connetquot River (LIRR) | South Shore | Connetquot River | Islip | 18T 0655628 4518211 | Mar 6, 2008 | MB/CV | none | access via Rte. 454, walk down LIRR. |
| Slate Pond dam; Connetquot S.P. dam above Slate Pond | South Shore | Connetquot River | Islip | 18T 0657298 4512974 | Mar 11, 2008 | MB | none | good potential pullout on NE corner. |
| East Pond outlet - Rte. 27 | South Shore | Connetquot River | Islip | 18T 0656802 4512500 | Mar 11, 2008 | MB | none | spillway too steep; culvert long and narrow...barrier? |
| Mud Brook outlet - Rte. 27 | South Shore | Connetquot River | Islip | 18T 0656532 4512517 | Mar 11, 2008 | MB | none | spillway under highway may be an effective barrier. |
| Lakeland C.P., Connetquot source | South Shore | Connetquot River | Islip | 18T 0655758 4518361 | Mar 11, 2008 | MB | none | checked N. end of pond. |
| Nissequoque River | LI Sound | Nissequoque River | Smithtown | 18T 0650852 4524495 | Jan 26, 2008 | MB/CV | none | checked area near Rte. 25 and south of LIRR bridge. |
| Nissequoque River | LI Sound | Nissequoque River | Smithtown | 18T 0651667 4525225 | Jan 26, 2008 | MB/CV | none | checked Landing Ave. area. |
| Sunken Meadow S.P. dam | LI Sound | Nissequoque River | Smithtown | 18T 0647806 4522074 | Mar 6, 2008 | MB/CV | none | dam at east end of parking area. |
| Sunken Meadow S.P. east point | LI Sound | Nissequoque River | Smithtown | 18T 0648765 4529807 | Mar 6, 2008 | MB/CV | none | confluence of Nissequoque River and tidal lagoon. |
| Sunken Meadow S.P. footbridge | LI Sound | Nissequoque River | Smithtown | 18T 0647254 4530093 | Mar 6, 2008 | MB/CV | SCAT (24) & scrape | red cedar grove on pt W. of pedestrian bridge (N. side of water). |
| Sunken Meadow S.P. footbridge | LI Sound | Nissequoque River | Smithtown | 18T 0647254 4530093 | Mar 27, 2008 | MB | SCAT (26) | old scat (fish); 2 "new" piles since 3/8/08 visit. |
| Millers Pond dam | LI Sound | Nissequoque River | Smithtown | 18T 0652028 4523161 | Mar 6, 2008 | MB/CV | none | dam at Maple Ave. has little cover. Pond worth checking. |
| Brooksite Park | LI Sound | Nissequoque River | Smithtown | 18T 0651094 4523210 | Mar 6, 2008 | MB/CV | none | checked Millers Pond outlet near Brooksite Drive. |
| Stump Pond dam | LI Sound | Nissequoque River | Smithtown | 18T 0649379 4522727 | Mar 6, 2008 | MB/CV | none | Blydenburgh County Park / start of Nissequoque River |
| Stump Pond (NW cove bridge) | LI Sound | Nissequoque River | Smithtown | 18T 0649228 4522922 | Mar 6, 2008 | MB/CV | none | bridge over shallow stream. |
| Stump Pond (Croft Lane inlet) | LI Sound | Nissequoque River | Smithtown | 18T 0649084 4522074 | Mar 6, 2008 | MB/CV | none | raccoon sign and ?bright green liquid secretion. |
| Bill Richards Town Park | LI Sound | Nissequoque River | Smithtown | 18T 0649972 4521035 | Feb 28, 2008 | MB | SCAT (2) | on earth dam; fish; 1.5 and 1 m. from water; one very fresh. |
| Bill Richards Town Park | LI Sound | Nissequoque River | Smithtown | 18T 0650159 4521028 | Feb 28, 2008 | MB | SCAT (2) & scrape | on path; fish; 1 tubular, 1 loose and very fresh. |
| Stump Pond (W. side inlet) | LI Sound | Nissequoque River | Smithtown | 18T 0649601 4521738 | Feb 28, 2008 | MB | SCAT (3) | old; fish; atop old wooden bridge remnants. |
| Stump Pond (W. side pt.) | LI Sound | Nissequoque River | Smithtown | 18T 0649685 4521741 | Feb 28, 2008 | MB | SCAT (2) & scrape | on path 2m. from pond; very fresh; 1 fish, 1 feathers (duck?). |
| Stump Pond Island | LI Sound | Nissequoque River | Smithtown | 18T 0649707 4521384 | Mar 27, 2008 | MB | none | very low elev. (possibly too wet) with thick shrubs. |
| Stump Pond S. point | LI Sound | Nissequoque River | Smithtown | 18T 0649707 4521234 | Mar 27, 2008 | MB | none | checked near large p. pine; excellent latrine characteristics. |
| Bill Richards Town Park pond | LI Sound | Nissequoque River | Smithtown | 18T 0650280 4520842 | Mar 27, 2008 | MB | TRACKS (photo'd) | in sand at E. inlet near parking/footbridge. Checked pond perm. |
| Mill Pond (W. shore) | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0622941 4525546 | Mar 18, 2008 | MB | none | near highway depot on Lake Ave. |
| Franklin Pond inlet | LI Sound | Cold Spring Harbor | Oyster Bay | 18T 0630010 4522920 | Mar 18, 2008 | MB | none | checked area near private drive / bridge over stream. |
| Franklin Pond dam off Rte. 108 | LI Sound | Cold Spring Harbor | Oyster Bay | 18T 0629758 4523466 | Mar 18, 2008 | MB | none | top of dam is paved. |
| St. John's Pond dam | LI Sound | Cold Spring Harbor | Oyster Bay | 18T 0629571 4524063 | Mar 18, 2008 | MB | SCAT (5) | old scat (fish) on top of dam. 65 m. E. of spillway. |
| Upper Francis Pond (W. shore) | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620719 4525092 | Feb 20, 2008 | MB | SCAT (30+) & scrapes | 8 fresh; all sign w/in 3 m. of pond & along W. side for >75 m. |
| Upper Francis Pond dam | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620806 4525348 | Feb 20, 2008 | MB | SCAT (12) | W. side of dam w/in 5 m. of pond. |
| Pond S. of Upper Francis | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620612 4524995 | Feb 20, 2008 | MB | SCAT (12+) & scrapes | 4 fresh; most fish, some shell; < 5 m. from water; pt on NE. side. |
| Humes Pond, Shu Swamp | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620660 4525725 | Feb 20, 2008 | MB | SCAT (15) & scrapes | E. side of pond, 30 m. from dam. |
| Cleft Road Pond | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0622365 4526572 | Feb 24, 2008 | MB | none | dam on private driveway; outlet leads to West Harbor. |
| L. Francis Pond/Frost Mill Rd. | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620628 4525653 | Feb 24, 2008 | MB | TRACKS & pushups | 30+ pushups on L. Francis; tracks xing to Hume Pd. (snow). |
| Upper Francis dam | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620806 4525348 | Feb 24, 2008 | MB | SCAT (5) & TRACKS | scat on snow (<36 hours); tracks out and back, ?otter uncertain. |
| Beaverdam Lake (rink point) | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620834 4526785 | Feb 24, 2008 | MB | TRACKS (in snow) | tracks in snow xing pt of land from water exit at Osprey pole. |
| Kantuck Lane (east pond) | LI Sound | Oyster Bay Harbor | Oyster Bay | 18T 0620298 4526699 | Feb 24, 2008 | MB | none | checked dam area. |

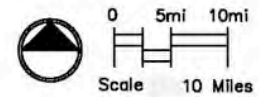
APPENDIX IV. LOCATIONS OF OTTER SIGN (LATRINES AND TRACKS)

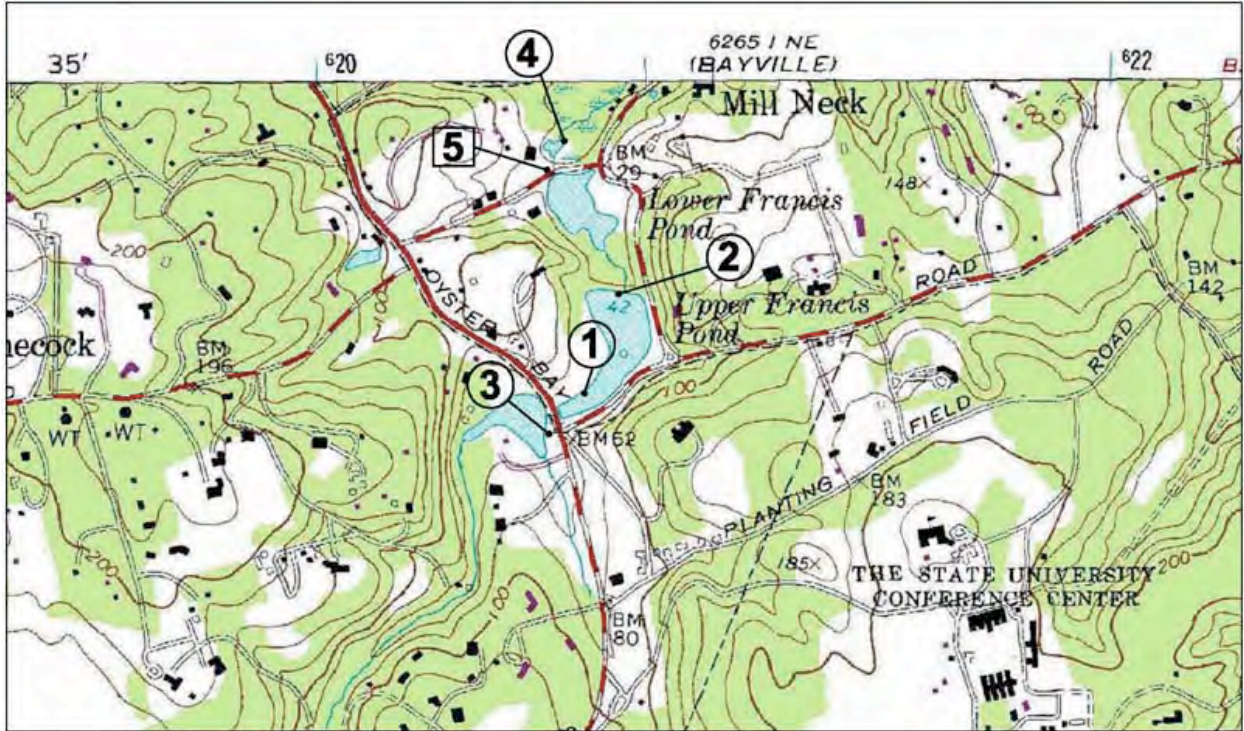


- LEGEND**
- A - Bayville Quadrangle
 - B - Hicksville Quadrangle
 - C - Huntington Quadrangle
 - D - Northport Quadrangle
 - E - Central Islip Quadrangle
 - F - Moriches Quadrangle
 - G - Riverhead Quadrangle
 - H - Southold Quadrangle
 - I - Greenport Quadrangle
 - J - Gardiners Island West Quad.

**Key Map
2008 Otter Survey Results**

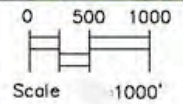
See Appendix 4 for Quadrangle Maps A-J

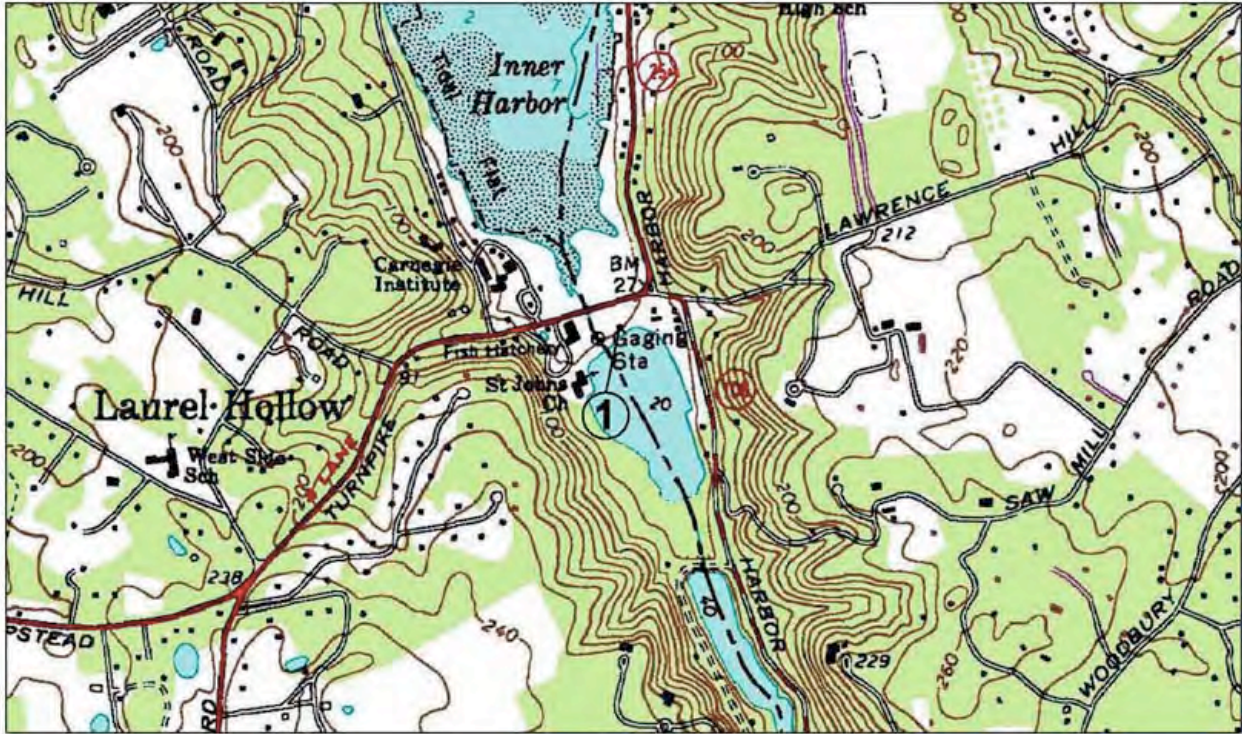




- ① UTM# 18T 0620719 4525092 LATRINE SITE
- ② UTM# 18T 0620806 4525348 LATRINE SITE
- ③ UTM# 18T 0620612 4524995 LATRINE SITE
- ④ UTM# 18T 0620660 4525725 LATRINE SITE
- ⑤ UTM# 18T 0620628 4525653 TRACKS

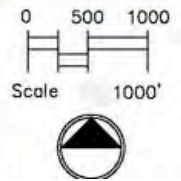
MAP B
 2008 Otter Survey Results
Part of
HICKSVILLE QUAD





① UTM# 18T 0629571 4524063 LATRINE SITE

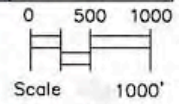
MAP C
 2008 Otter Survey Results
 Part of
HUNTINGTON QUAD

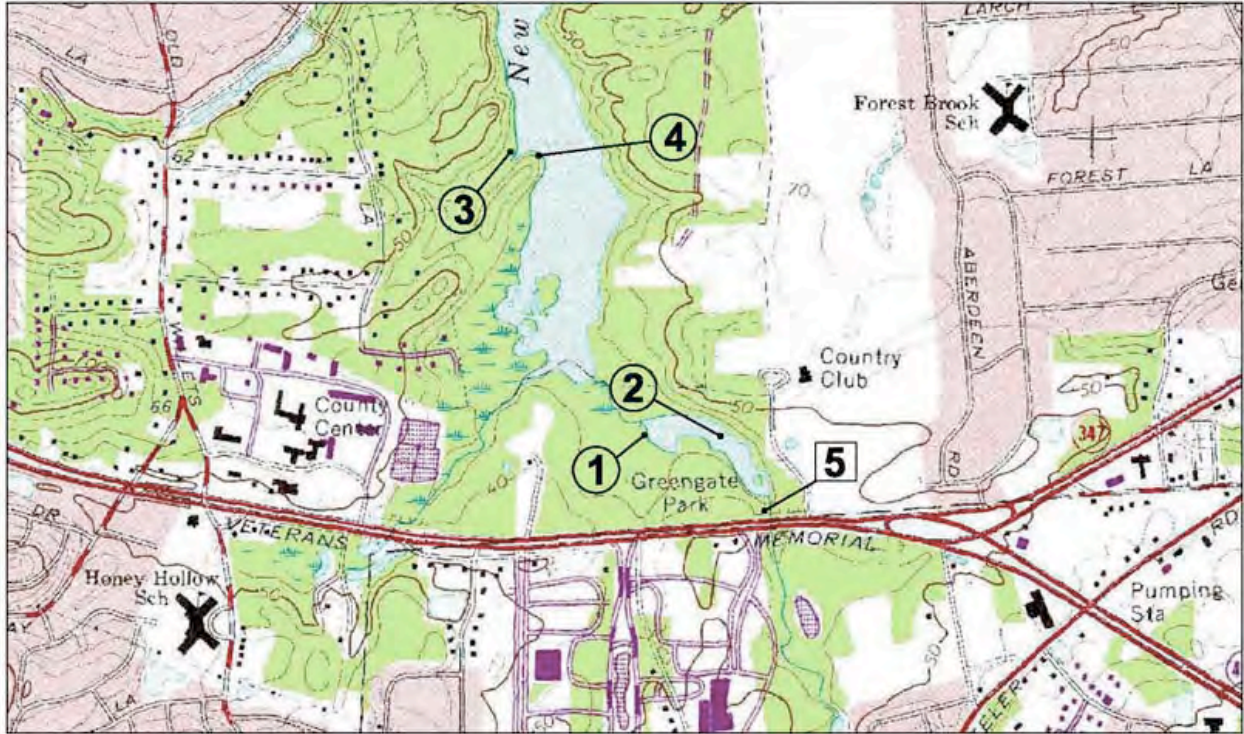




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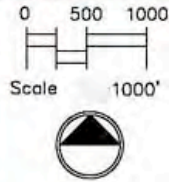
MAP D
 2008 Otter Survey Results
Part of
NORTHPORT QUAD

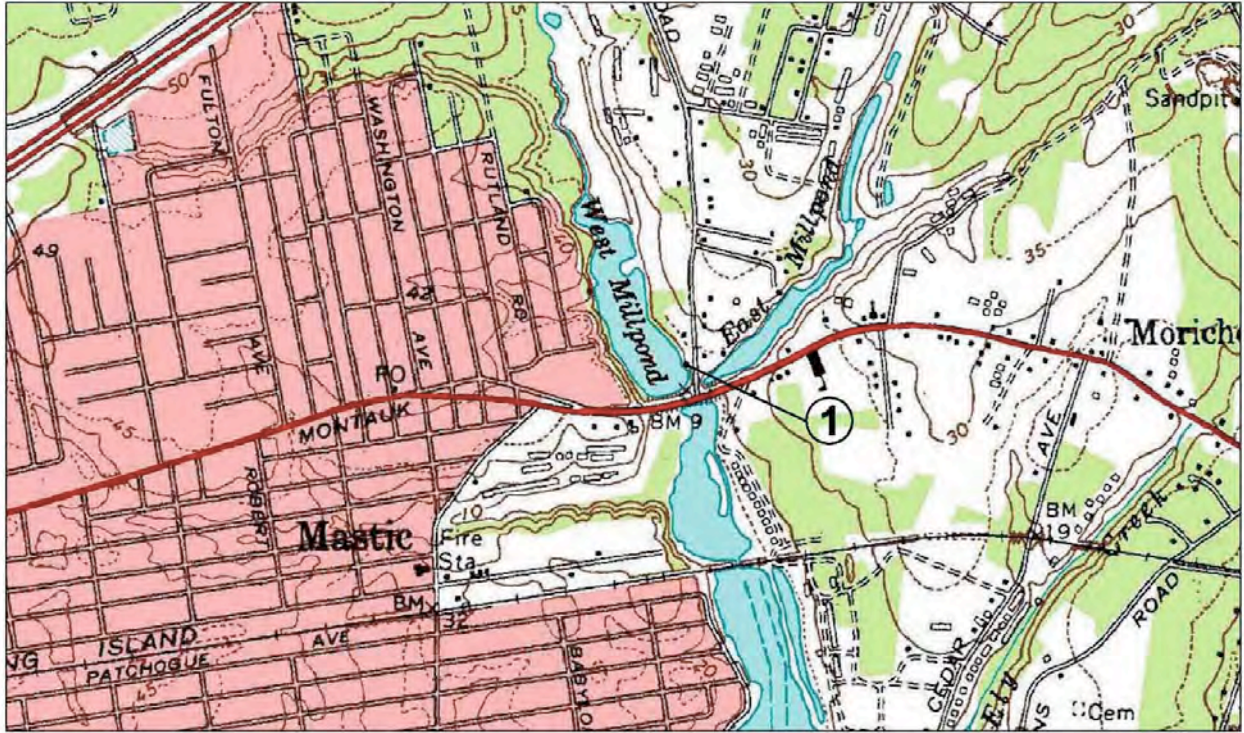




- ① UTM# 18T 0649972 4521035 LATRINE SITE
- ② UTM# 18T 0650159 4521028 LATRINE SITE
- ③ UTM# 18T 0649601 4521738 LATRINE SITE
- ④ UTM# 18T 0649685 4521741 LATRINE SITE
- ⑤ UTM# 18T 0650280 4520842 TRACKS

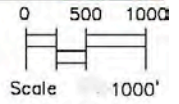
MAP E
2008 Otter Survey Results
Part of
CENTRAL ISLIP QUAD

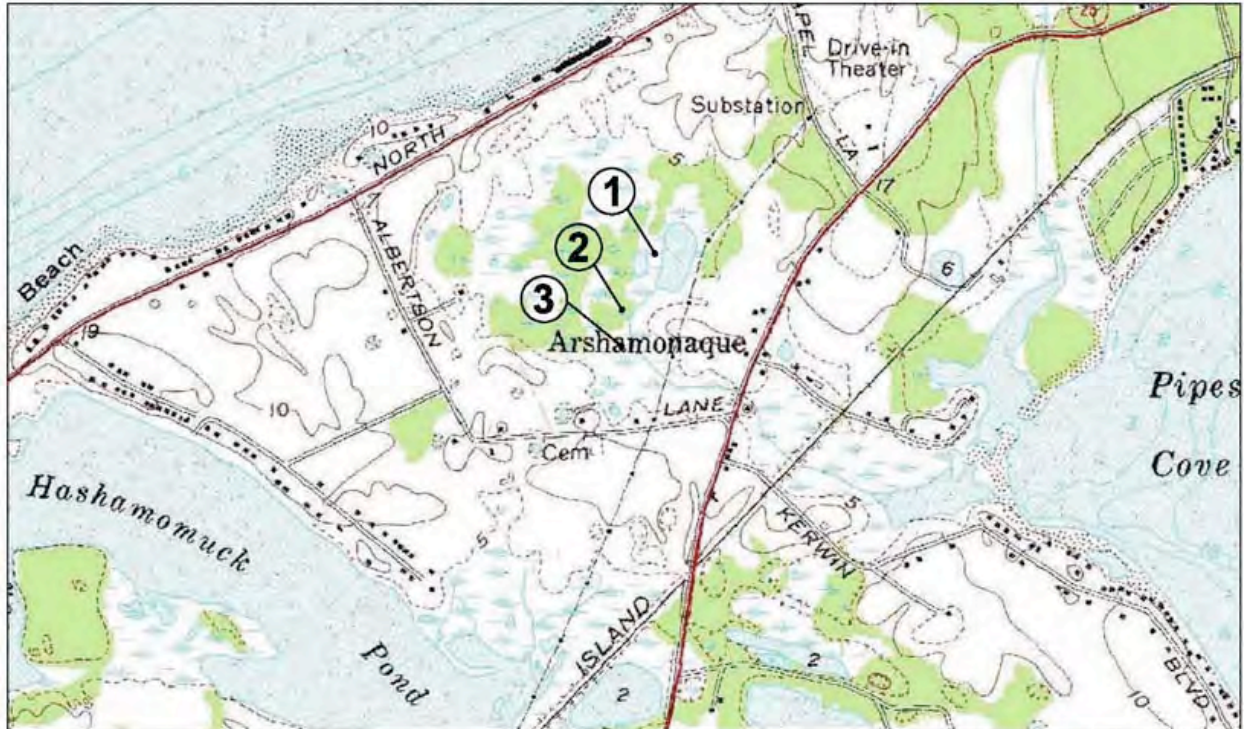




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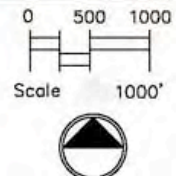
MAP F
2008 Otter Survey Results
Part of
MORICHES QUAD





- ① UTM# 18T 0718906 4552241 LATRINE SITE
- ② UTM# 18T 0718829 4552105 LATRINE SITE
- ③ UTM# 18T 0718819 4552012 LATRINE SITE

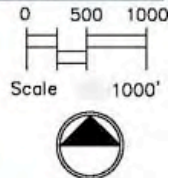
MAP H
2008 Otter Survey Results
Part of
SOUTHOLD QUAD

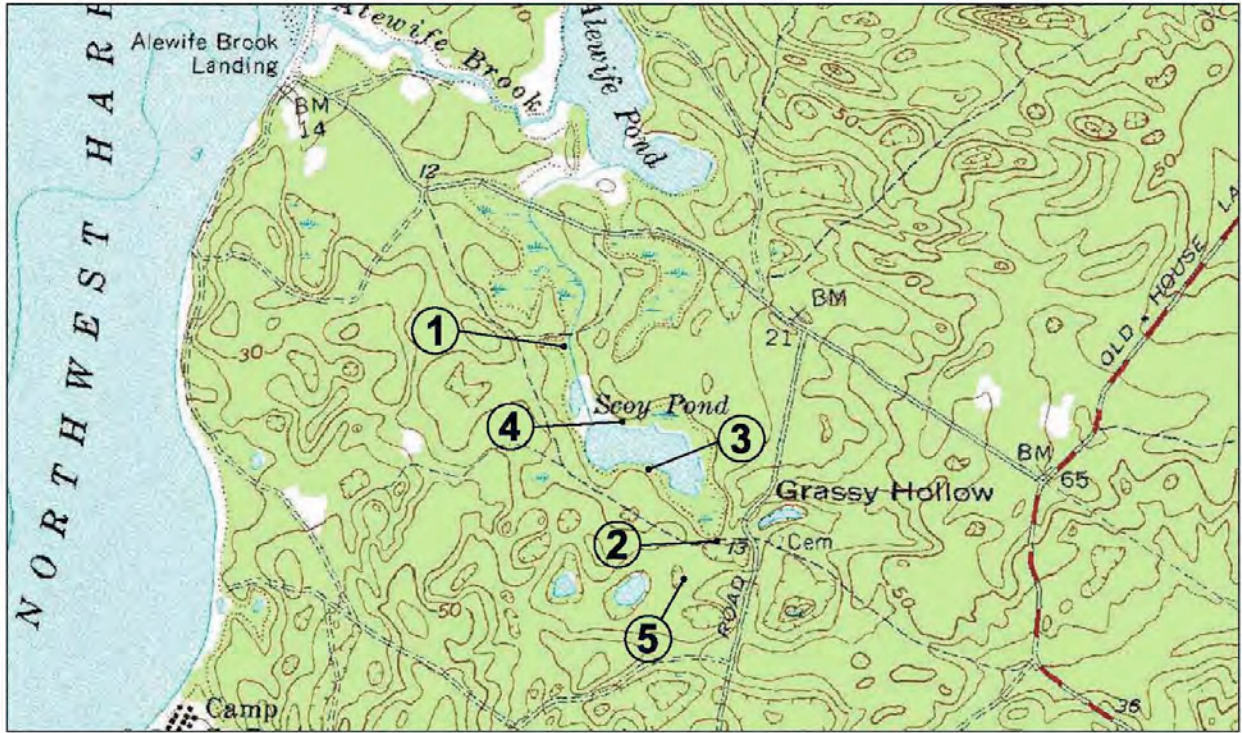




- ① UTM# 18T 0727246 4547506 LATRINE SITE
- ② UTM# 18T 0728401 4547741 LATRINE SITE
- ③ UTM# 18T 0728343 4547554 LATRINE SITE
- ④ UTM# 18T 0728484 4547216 LATRINE SITE

MAP I
2008 Otter Survey Results
Part of
GREENPORT QUAD





- ① UTM# 18T 0732770 4545383 LATRINE SITE
- ② UTM# 18T 0733155 4544918 LATRINE SITE
- ③ UTM# 18T 0732990 4545098 LATRINE SITE
- ④ UTM# 18T 0732908 4545207 LATRINE SITE
- ⑤ UTM# 18T 0733080 4544808 LATRINE SITE

MAP J
 2008 Otter Survey Results
Part of
GARDINERS ISLAND
WEST QUAD

