I ❤ NY

Electrofishing: What is it and How Does it Work?

By Heidi O'Riordan

Electrofishing is a common technique used by fisheries biologists to sample fish populations in bodies of freshwater. As the name implies, electrofishing uses electricity to catch fish. Fisheries managers use this method to learn details about fish populations such as species composition, age distribution, and presence of invasive species.

Biologists use either small backpack shockers or electrofishing boats.

Photo courtesy of NYSDEC

Electrofishing boat used by the NYSDEC.

On Long Island, the New York State Department of Environmental Conservation (NYSDEC) - Freshwater Fisheries Unit uses an 18' flat-bottom aluminum vessel that is mounted with a generator that creates electrical currents that pass through positive (anodes) and negative electrodes (cathodes) hanging partially submerged in the water in front of the boat. As the vessel cruises through the water, a field of electricity

Photo courtesy of Malynda Nichol

Biologist Heidi O'Riordan uses a net to collect fish for processing.

precedes the path of the boat. The right amount of current elicits taxis, an involuntary muscular response that causes fish to swim towards the anodes. Once fish reach an anode, they stop swimming and go into narcosis (stunned), floating belly up. Since narcosis only lasts for a few seconds, biologists must quickly net the fish, which they put into a holding tank or live well during the "run" (sampling period). At the end of a run, the animals are processed on shore. After biologists have processed the fish—identified, measured, weighed, removed sample scales—they are returned to the water unharmed.

ASK KATIE

Q: Why are fish so slimy? Is it okay to use a rag to hold a fish?

A: The slime or mucus serves several purposes. First, mucus is a layer that acts as a barrier, protecting fish from bacteria and parasites. The protective coating also contains anti-bodies and enzymes that can kill those invading disease organisms. Mucus also functions as a lubricant, helping fish move through water.

One should NEVER hold a fish with a rag! When you hold a fish with a rag, you remove that protective layer, exposing fish to disease organisms in the water. The ideal method is to remove the hook without handling the fish, leaving the fish in the water as much as possible. If you must handle the fish, always wet your hands first to prevent removing the slime layer.

FISHING HOTSPOTS
Long Island: Cedar Beach Pier, Mount Sinai

Type: Saltwater

Where: Take 495 to exit 63. Go north on Patchogue-Mount Sinai Road/Route 83. Follow until it ends. Make a right on Route 25A. Bear left on Echo Avenue. Make a left at light on Pipe Stave Hollow Road, left on Harbor Beach Road, and follow to beach/pier.

Access: Free for Town of Brookhaven residents; $15 for non-Town residents; (631) 451-6100

Photo courtesy of I FISH NY staff
An overview of Cedar Beach Pier

Boat Launch: No
Handicap Access Fishing Pier: Yes, 100' x 8'
Shoreline: Yes

Species: Striped bass, fluke, porgy, bluefish

Rules for Cedar Beach Pier: (minimum size, daily limit, open season)
Striped bass - 28", 2, April 15 – Dec. 15
Fluke - 19.5", 4, all year
Porgy - 10.5, 25, June 1 – Oct. 31
Bluefish - No minimum size for first 10 fish, 12" for next 5, all year

Other:
Night fishing is permitted. Call the Town of Brookhaven for more information.

For general rules about saltwater fishing go to: http://www.dec.ny.gov/outdoor/7894.html

NYC: Kissena Lake, Queens

Type: Freshwater

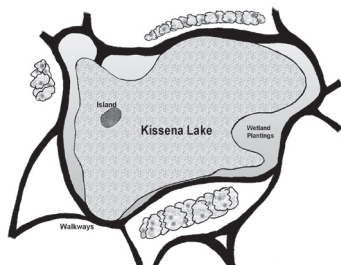**Where:** Oak Avenue and 164th Street, Flushing

Figure 1. Kissena Lake

Access:

Boat Launch: No
Handicap Access Fishing Pier: No
Shoreline: Yes

Species: Largemouth bass, bluegill sunfish, pumpkinseed sunfish, yellow perch, black crappie, carp, American eel

Rules for Kissena Lake: (minimum size, daily limit, open season)

Catch and release only.

Other:
For general rules about freshwater fishing go to: http://www.dec.ny.gov/outdoor/7917.html

NYS Fishing License required for those 16 years old and older.

Only barbless hooks.

No lead weights.

Photo courtesy of NYSDEC

After School Conservation Club student enjoying fishing at Kissena Lake.

FACT OR FISHIN'
seafood health advice

In the 80's, environmentally conscious seafood consumers looked for the "dolphin-free" label when buying canned tuna. Since then, Americans' seafood consumption has become more sophisticated and so too, have the guidelines for eating seafood responsibly. Several organizations such as the Monterey Bay Aquarium, the California Academy of Sciences, and the Blue Ocean Institute have issued color-coded seafood wallet cards that evaluate a product's (type of seafood) sustainability. Is there a lot of bycatch (fish and shellfish that are discarded) associated with catching that species? Is that species threatened or endangered? Not all of the cards come to the same conclusions, but an angler would be wise to be as responsible when buying fish as when catching them.

CALENDAR OF EVENTS

I FISH NY provides all the tackle and bait you'll need. Just call and reserve your spot today!

Long Island:

Wednesday, September 19
Saltwater Fishing Clinic
Cedar Beach, Mount Sinai
5pm-dark

Saturday, September 22
Great South Bay Shorescape
Babylon Sportfishing Center
10am-2pm

NYC:

Thursday, September 20
Snapper Derby
Gantry Plaza, Queens
6pm-8pm

Saturday, September 29
National Estuary Day Festival
Swindler Cove Park
All day, fishing times TBA

To get more information,
log on to http://www.ifishnewyork.org.
To ask questions or register,
call 718.482.4940 (NYC) or 631.444.0283 (LI).

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