

Native Waters Sharing the Source Long Island Sound Extensions

**Tribes of New England
and the Long Island Sound
Watershed**

The Culture of Shells

Downstream Destinations

Fishing Without Poles

Water History Basket

Resources and Links

Tribes of New England and The Long Island Sound Watershed

Native Americans of New England have always had a close relationship with water systems. Villages were located in close proximity to freshwater systems that served as food sources and linked to coastal communities for trade. Some Tribes would relocate seasonally to coastal settlements allowing the communities to utilize the food resources of both fresh and salt water **ecosystems**.

New England Tribes: Find their location on the map of the Long Island Sound Drainage Basin. (The points on the map show approximate locations of tribal offices, or reservation. Tribal lands and members' locations extend beyond these points.)

Tribe	Current Location
 Abenaki	Swanson, VT
 Mohegan	Uncasville, CT
 Narragansett	Charlestown, RI
 Nipmuck, Chabanakongkom	Sutton, MA
 Nipmuck, Hassanamisco	Grafton, MA
 Golden Hill Paugussett	Trumbull, CT
 Schaghticoke	Kent, CT
 Mashantucket Pequot	Mashantucket, CT
 Paucatuck Eastern Pequot	North Stonington, CT
 Shinnecock	Hamptons, Long Island NY

A **drainage basin** is an area in which water, sediments and dissolved material drain to a common outlet from the surface and groundwaters.

Watersheds are the divides that separate basins from each other. They are defined by the topography of an area.

How many states are part of the Long Island Sound Drainage Basin?

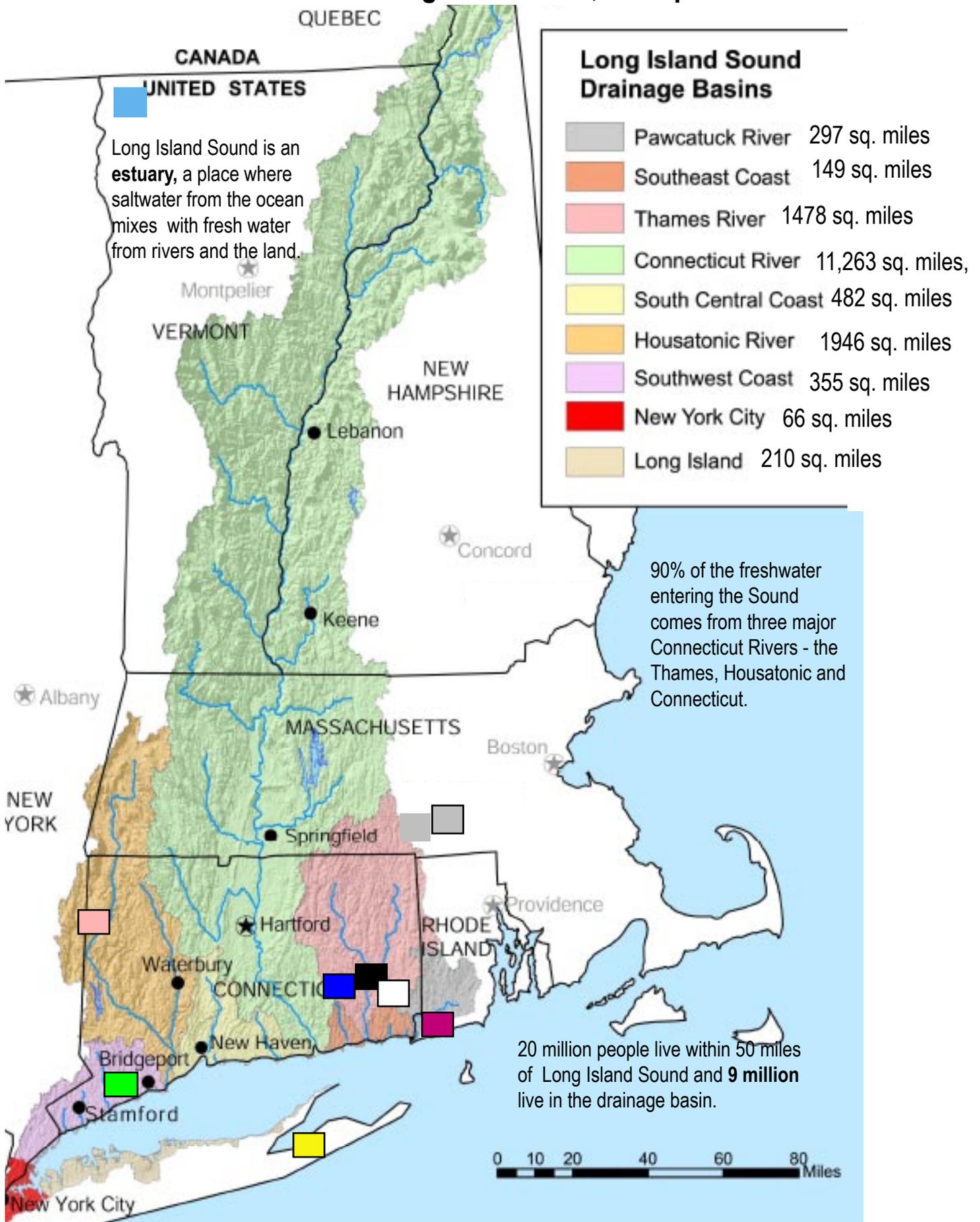
How many countries work to keep water clean in the Sound?

How many watersheds make up the Sound's drainage basin.

How many Native American Tribes currently live in the Long Island Sound drainage basin?

How many Tribes historically lived here?

Size of the Drainage Basin: 16,246 square miles



Graphic provided by The Long Island Sound Study,

The Culture of Shells

Streams flow into larger streams, then to rivers and eventually the major rivers go to the Long Island Sound. Along this course of travel the water goes from fresh to **brackish** and then to salt. In each habitat there are species of mollusks that are sensitive to changes in water quality. These animals became part of Native and later European food systems. They also were vital for the production of tools used in daily life. Today our fisheries continue to harvest clams, mussels and oysters for local and world consumption.

Mollusks are one of the **biological indicators** for stream and water health. They are filter feeders and therefore changes in water quality affect them quickly. Loss of populations could indicate the presence of an environmental stressor. This could be a **toxin**, too much erosion, **invasive species**, or change in temperature.

Common River Clam



Pill Clam



Freshwater Mussels

It's Back



Yellow Lamp Mussel

The Yellow Lamp Mussel, *Lampsilis cariosa*, had not been found in Connecticut since the early 1980's. It is listed as endangered in Massachusetts, threatened in Maine and was **extirpated** from Connecticut. However, in 2006 live clams were rediscovered in the Connecticut River within the boundaries of Connecticut. Improved water quality could be part of the reason the Yellow Lamp Mussel is able to survive here again.

Photo by Pat Rasch and Larry Cyrulik

Saltwater Mussels



Razor Clam



Blue Mussels

Atlantic Welk



Quahog Clam



Oyster

Wampum



The use of shellfish is important to the culture of the New England tribes. Shells were used to create tools and beads. The beads were used for adorning clothing, gift articles, ceremonial pieces and for the creation of wampum. The word "Wampum" comes from the Narragansett word for 'white shell beads'. Wampum beads are made in two colors: white ("Wòmpi") beads ("Wompam") from the Whelk shell ("Meteaùhock"), and purple-black ("Súki") beads ("Suckáu hock") from the growth rings of the Quahog shell ("Suckauanaùsuck"). These mollusks also provided food resources for the Tribes.

Pequot sachem and medicine people wore wampum as a sign of their status. When people gave their word and exchanged wampum it underscored the meaning of truth. Europeans misunderstood the way Native People valued wampum. When wampum became a commodity in the fur trade, the Europeans equated it to money.

Downstream Destinations

Not only people travel up and down the rivers.

American Shad



Connecticut's State Fish

Some fish need to migrate from upstream fresh waters to open salt waters and back again to complete their life cycles. They are called **anadromous fish** and include salmon, shad, herring and alewife. All these species were important foods for Native American people and remain important today.

The construction of dams in Connecticut began in the 1630's with the arrival of the first colonial settlers. Today, over 1,000 dams are in the Connecticut River Watershed challenging fish migrations.

Atlantic Salmon



Fish ladders have been constructed to help fish travel up and over dams. You can view fish and learn about fish ladders at Rainbow Dam in Windsor, Connecticut.

American Eels are **catadromous** fish. They begin life in the Sargrasso Sea migrating thousands of miles to freshwaters, where females will spend up to ten years maturing, before returning to the Sargrasso Sea to spawn and die. Elevators or "eel-avators" have been built to help the young females over dams. The most recent was installed at Fishing Brook in Old Saybrook.



Fishing Without Poles

Weirs

Native people used fish **weirs**, small dam-like structures, to trap fish as they migrated up and down stream. Weirs were also used year-round on the tidal rivers leading to Long Island Sound. Fish entered the rivers with rising tide waters over the fence structures. When the tide went out the fish were trapped by the weir. The men would then scoop the fish out at low tide using dip nets. Openings at the base of the weir would allow small, young fish to escape, so as not to deplete populations.

Atlantic Sturgeon



Spears

Typically, the seasons for spear fishing were winter and spring. Men would fish using spears made from wood with points made from bone. After the Europeans arrived they used metal. Spears would have single or triple points on them depending on the size of the fish being caught. Usually larger fish were speared including **sturgeon**. Men and women used a line with a bone hook or a wooden lure carved to resemble something the fish would eat.

Nets

Nets would be used to catch schooling fish. Nets were made from plant fibers. The edges were tied with small carved stones used as sinkers to weigh the net down and wooden floats on the top. Nets were dragged through rivers, streams and coastlines to capture a variety of fish. Both fresh and salt water fish were caught this way. Also, nets were stretched across a stream or small river and fish were driven into them from up stream.

Water History Basket

Archeologists have found remnants of the past in research sites around New England showing how Native People's lives were linked to the water systems found here. Identify these artifacts from Tribal history by drawing a line from the picture to its identity. Research the items and explain their relationship to water and Tribal use.



A



B



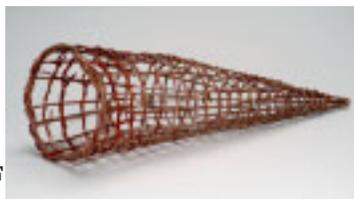
C



D



E



F



G

Plummet

Fish Trap

Fish Spear

Quahog Clam

Fishing Hook

Dip Net

Net Sinker

Dugout Canoe

Eel Trap

Cattails

Wampum Beads



K



J

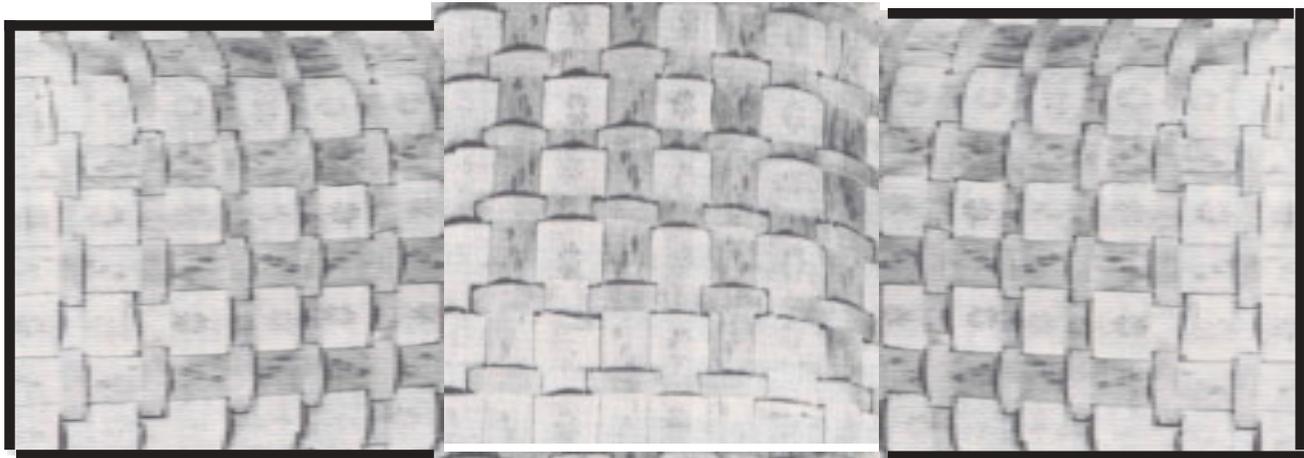
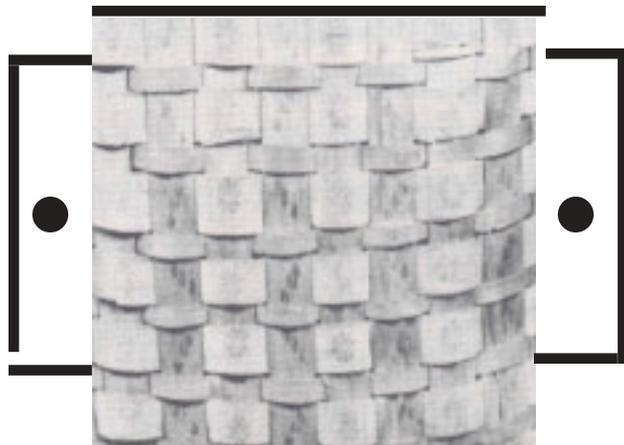


I

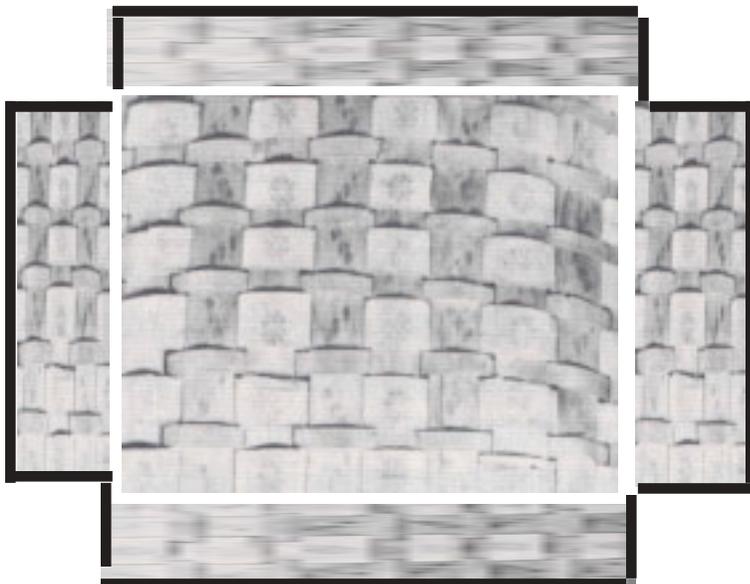
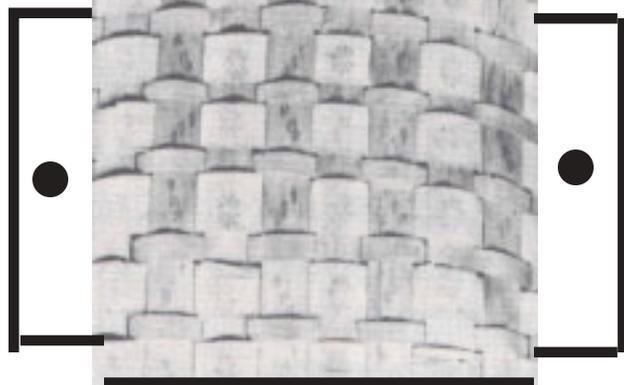


H

Woodsplint Ash Basket

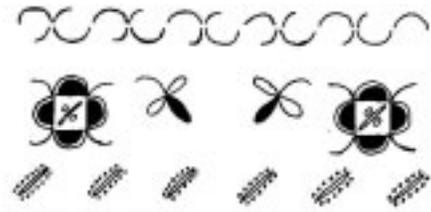


- Cut the outlines of the basket and lid.
- Fold into box shape and place a drop of glue on dots to secure.

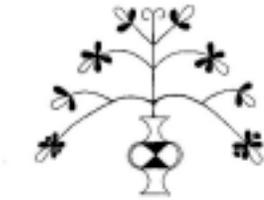


Cut out artifact pictures from the previous page and glue to index cards that have been cut to fit inside the basket you have made. On the back of the card, identify each artifact and explain its use.

Native people in southern New England wove baskets and bags using a variety of materials including wood and hemp. Most baskets were made from ash or oak wood. Wood sections were soaked in water than pounded and peeled into strips. Basket styles represented distinctive cultural groups, while designs helped to identify the maker, their tribe and reflections on changes occurring in their lifestyle. Below is a collection of designs typical to the southeastern New England Tribes from the time period 1840 - 1850.



Mohegan



Nipmuck



Mashantucket Pequot



Mohegan-Pequot



Paucatuck Pequot

Originally, baskets were made for **utilitarian** reasons, some for harvesting, others to store items. Later, as Europeans arrived the need to trade and design goods for sale increased and baskets were also made for economic reasons and artistic pieces.

Images of basket designs used with permission from the Institute for American Indian Studies, Washington CT, publication ***A Key into the Language of Woodsplint Baskets:***

Resources and Links

Long Island Sound and Watershed Resources

- Environmental Protection Agency www.epa.gov/region01
- Long Island Sound Study www.longislandsoundstudy.net
- Connecticut Department of Environmental Protection
Office of Long Island Sound www.ct.gov/dep
- USGS Science in your Watershed www.water.usgs.gov

Native American Educational Centers

Mashantucket Pequot Museum and Research Center
Mashantucket, CT
www.pequotmuseum.org

Teacher Resources and Guides

Rooted Like the Ash Trees

edited by Richard G. Carlson, Redwing Press,
Naugatuck, CT

Institute For American Indian Studies
Washington, CT
www.birdstone.org

A Key into the Language of Woodsplint Baskets

edited by Ann McMullen and Russell G Handsman,
American Indian Archaeological Institute; Washington, CT

National Museum of the American Indian
Washington, DC
www.nmai.si.edu/index

Keepers of the Earth

Joseph Bruchac and Michal Caduto
Fulcrum Publishing; Golden, CO.

Fish Facts and Information Sheets

www.fws.gov
www.kids.state.ct.us

Fish Ladders

www.fws.gov

Clams and Mussels

www.ct.gov

Native American Educational Resources

www.500nations.com/Connecticut_Tribes.asp
www.nativetech.org/wampum/wamphist.htm
www.epa.gov/region01
www.nipmuck-indians.com

Answers to page 10

- A - Fishing Hook
- B- Dip net
- C- Dugout Canoe
- D- Net Sinker
- E- Cattails
- F- Fish Trap
- G- Quahog Clam
- H- Plummet
- I- Fishing Spear
- J- Wampum Beads
- K- Eel Trap

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