

# The Connecticut River Museum Shad Festival May 14<sup>th</sup> 2005

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## The Fisheries of East Guilford (Madison) The Walston Trap Net Circa 1970

The trap fisheries of Guilford were established by the 1850's. Menhaden locally known as "White Fish" or Bunker were important economically to the farming community. Fish trap nets were set to catch the spring run of shad, river herring, alewife and lastly menhaden. The first three species could be smoked or pickled as food, fish was hard to preserve and salt too costly for such oil rich fish which was easily "spoiled." Instead much of this fish ended as animal feed or fertilizer. The whitefish run was different rich in oil, these were "rendered" for valuable oil of a light quality. Fish oil was used in a variety of products including lubricants and paints, fish were boiled to remove oil and pressed the remnants called the "cake" was valuable in its own right as animal feed and as fertilizer for Connecticut's thin glacier soils. The beach close the fish traps was the preferred location as the oil in the menhaden fish would quickly spoil producing the term "red herring" for the pungent smell of oxidizing fish oil. One location next to Circle Beach of Madison is still referred to as hoghead point - the term referred to the size of the barrel in which rendered oil was shipped. Whale oil and later petroleum production made menhaden oil unprofitable. Trap fisheries then concentrated on fish to be sold to people or for bait. Such was the last trap net (pole type) set in Guilford, Connecticut in the 1970's.

I was able to watch and participate in one of the last such traps set off Circle Beach Madison owned by the Walston family. I lived in Madison and together with my brother Raymond lobstered locally. Back then the lobster traps were wood and whole fish was the preferred bait and lobsters loved salted menhaden. Every spring when the trap caught menhaden we would assist Mr. Beebe in salting barrels

of menhaden - menhaden purchased from the trap net off the mouth of the East River. This trap net, I later learned was the last of some 30 traps set between Guilford and Old Saybrook in the 1880's. By the 1930's only three traps were left one in Westbrook, one in Clinton Harbor and the one off Guilford. By 1972 only one was left - the Walston trap.

Several economic factors would impact trap fisheries, chiefly the supply of labor and competition from railroads shipping fish greater distances. Trap fisheries in Guilford/Madison area would peak in the late 1880's, the last trap net being set by the Walston family about 100 years later. The trap nets of Connecticut were "pole nets" set in shallow water behind rocks that protected the traps during storms. Hickory poles were excellent - straight strong and rot resistant they proved to be a good source of 4 to 6 inch diameter trap poles. The trap was a manila or cotton mesh dipped in tar or tannic acid. The poles created a frame to which the trap would be laced. Anchors secured key poles and the lines creating the frame made rigid. A finished trap would then be laced to the frame - as traps could only be fished 30 to 40 days or the mesh would begin to rot. One "frame" could hand the several rotating nets as they would be pulled dried, dipped in (as preservative needed) and reset. Frames made of larger lines usually lasted one season, early March to late July. Trap nets were fished later but would foul with seaweed and needed to be rotated faster. Cleaner nets fished better so rotating the traps prevented the loss of mesh made from natural fiber but also caught better. A heavily fouled net would block so much of the tide as to prevent fish from approaching the leader. The fish would sense the "pressure wave" before the leader so larger mesh would be used to reduce the warning of an obstruction until it was too late and fish avoiding the leader would be guided into the wings. With the tidal movement of water fish would sense the way around the leader was into the trap itself and into move into the rear of the trap still seeking a way out and would be trapped in the inner heart.

### **Synthetics and the Loss of Labor**

Two factors would have a profound impact upon trap fisheries, the creation of rot resistant man made fibers such as polypropylene and nylon and lack of labor. Trap fishing was always a labor heavy enterprise, setting the trap, hauling, drying and treating/cleaning required "many hands." Mesh from synthetic twines greatly reduced the need to dry and treat the nets - and smaller (stronger) diameter twine meant less resistance and catches improved. The setting of the poles, building a rope frame and lacing the trap to the frame were still labor heavy activities. The design of the trap has changed somewhat - the frame became stronger and traps were changed less frequently and soon a hybrid trap frame developed. In this design a synthetic mesh trap was laced to the frame, floatlines, leadlines and riblines formed the trap with a small mesh liner that could be changed if heavy fouling threatened to sink or collapse the frame. Also a lack of labor restricted the setting and hauling of trap nets, never a simple project traps required as many 3 to 5 people - a minimum of three. As trap fisheries declined it became harder and harder to put together a "trap crew" to haul and box the catch.

Trap fishing has always been and always be hard work!

### **Liners and a new type of Trap**

Algae growth was always a struggle as any boater knows. A piece rope left in seawater could soon have a growth of marine algae, followed by mussels and even barnacles. The weight of fouling could impede hauling until it became impossible to haul. A series of liners could be changed with less labor and have almost the same result as an entire trap net change. Liners could be changed dried to kill growth (2 to 3 weeks) twine could be brushed if fouling was severe, the liner repaired and made ready for reuse. Liners were still laced into the frame with manila twine, this was to speed removal as knots would tighten and ties would have to be cut. Traps in the outer heart and wings would have larger mesh, same fish would escape but the larger mesh meant less knots/square yard - the knot is where fouling organisms could grip - the smooth twine stayed cleaner longer. If the trap became heavily fouled the entire trap and liner would need to be hauled out.

## **Storms presented a special problem**

Some pole traps had down haul lines that could raise the trap in advance of a storm. Traps were also lifted during heavy tides and fouling seaweed. Red jelly fish were also a problem - heavy concentrations in the trap could increase resistance so the entire trap could be carried away - including the frame and poles. One incident in Westbrook recorded several such nets being carried away in 1878 from heavy catches of red jelly fish.

## **One heavy catch recorded**

A story told me about the traps set off Circle Beach Madison at the turn of the century included 3 days of White fish (Menhaden) catches so heavy torches were set on the beach and traps hauled by moonlight. 500,000 fish were taken from the traps and the menhaden were so thick that oarlocks were muffled with rags as a sudden noise would scare the fish causing them to "charge the twine" potentially ripping the trap in half. Hauling and bailing the catch from circular pole "dip nets" continued until the trap crews were overwhelmed with fish and the trap net mouths were closed. Today the town seal of Madison once part of Guilford has a "white fish" to part of it's seal to commemorate this event at hogshead point.

## **The End of the Guilford Trap Net Era**

The last trap net fisheries of Madison and Guilford which were described in the US Fish Commission reports of the 1880's was ended in the early 1970's. Fish stocks had declined and just became unprofitable to work such large pieces of static fishing gear. In eastern Connecticut a form of trap net - an ocean pound requiring no net poles is still used. Mostly today to supply fresh line bait for the recreational fisheries.

## **Advantages in Fisheries Management**

One of the unforeseen implications of fish trapping is that it was conservation efficient, undersized immature fish could be released

alive, if markets collapsed, the trap could be temporarily closed, protected species were also released alive with minimum damage. Because fish were alive when handled it produced a fresh product, with little bruising. It was fuel efficient, instead of actively pursuing fish, the fish came to you! All of the features would again surface in the 1990's as fishery managers looked at fishery conservation. Several reports mentioned that trap fishing reduced by catch and related fishing mortalities to almost nothing and produced more protein/gallon fuel than any other type of fishing gear known to exist.

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For more information about trap net fisheries in Connecticut, please contact The Sound School Regional Vocational Aquaculture Center at 203-946-7106 and ask for Alicia Cook, Vo Ag Communicator to send a copy of Short Course Industry Workshop Series Bulletin.

"Our Connecticut Shad Fishery" a 30 page technical report on how Shad were caught here in Connecticut over a century ago. Visit our web site at [www.soundschool.com](http://www.soundschool.com).





