CAPE SHORE OYSTER CULTURE

INTERTIDAL SHELLFISH PRODUCTION ON THE CAPE MAY SHORES OF DELAWARE BAY, NEW JERSEY

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Maurice River Oyster Culture Foundation
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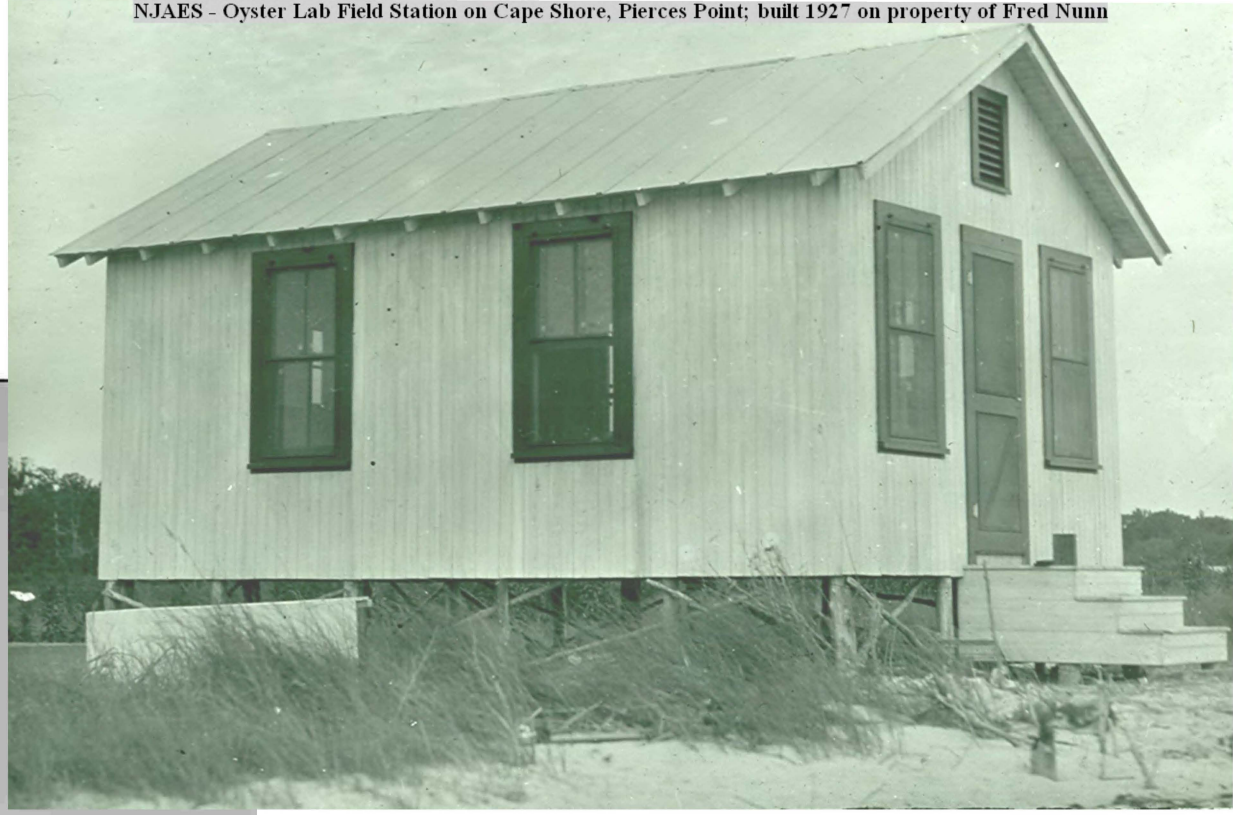
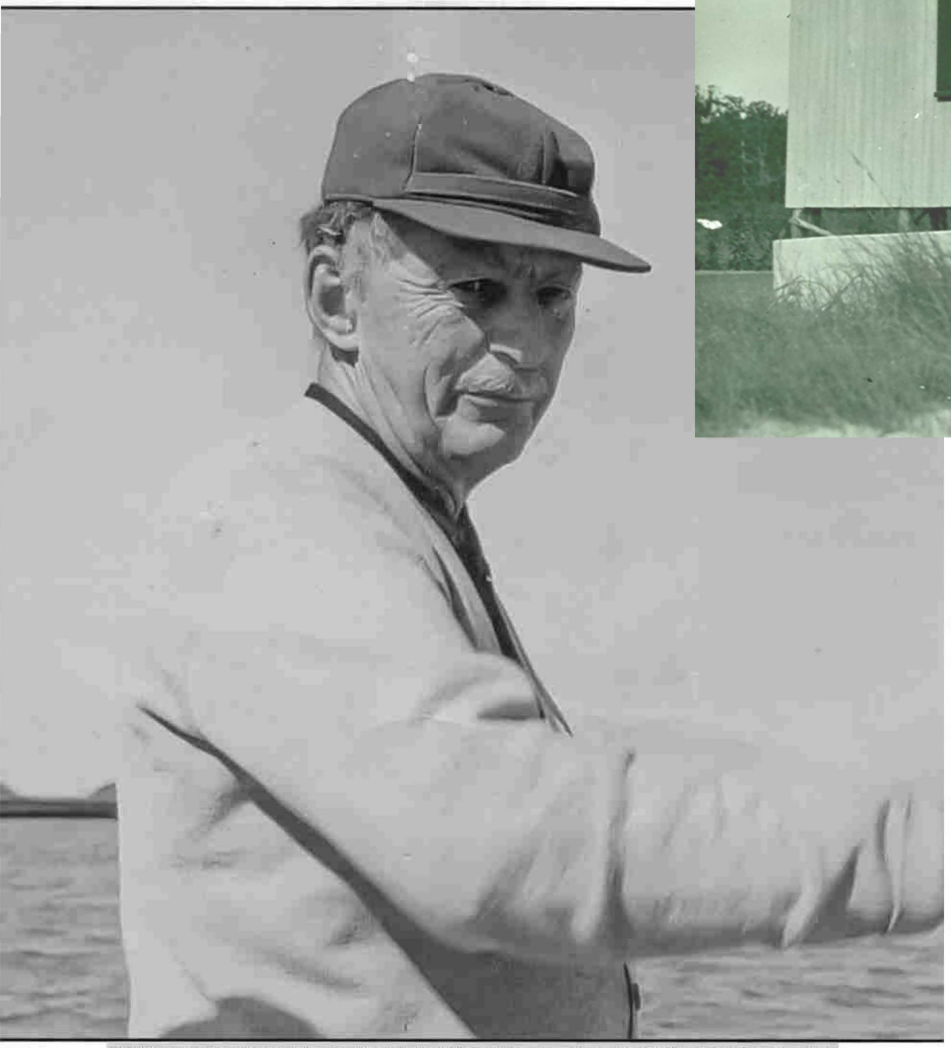


NJAES - Oyster Lab Field Station on Cape Shore, Pierces Point; built 1927 on property of Fred Nunn



T C Nelson, Cape Shore fall 1957 (Malacology Course) H P Jeffries pixit

A BIT OF HISTORY

For well over 85 years there has been a continuing effort by a number of oyster culturists to utilise the phenomenal biological potential of the intertidal flats of the Cape May bay-shore for both the production of high density oyster seed (spatted cultch) as well as the growout of high quality oysters for the half-shell trade using a variety of containerised systems to optimise meat yield and minimise losses due to environmental conditions and predation.

In 1924, T C Nelson, a noted oyster biologist of the NJ Agricultural Experiment Station of Rutgers College, recognised this exceptional Natural potential, and in 1927 constructed a field station in the centre of the existing commercial intertidal operations, a short distance south of Pierces Point in Middle Township.

Cape Shore oyster conditioning, George Bell & Norman Jeffries operations

SHELL STOCK FOR THE HIGH-END RESTAURANT MARKET

The ambient water flowing over the intertidal flats appears to supply an optimal particulate food ration for the oysters residing on the flats, which in concert with the high summer temperatures favours exceptionally rapid shell growth. In addition to this rapid and sustained shell growth, the meat quality (glycogen content) of these intertidal oysters is maintained at an surprisingly high level, even during the spawning period. To take advantage of these ideal growing conditions, a variety of systems have been adopted to grow oysters off the bottom, keeping them secure from adverse weather conditions that would tend to disperse and bury oysters planted directly on the bottom, as well as helping reduce predation and fouling pressures.

George Bell platforms at Peirces

Oyster Layout Plots on Cape Shore - TCN photo 1930s

Norman Jeffries platforms with oysters. Peirces flats.

Cape Shore Growout 1920s/30s using large platforms with wire mesh or slat bottoms. TCN pixit

J R Nelson Culture Platforms on Cape Shore Flats, 1931 ca.

Oysters in large trays at Cape Shore - TCN photo 1930s

Amos Pepper/WPA Oyster Tray RR on Cape Shore, TCN pixit, 1930s.

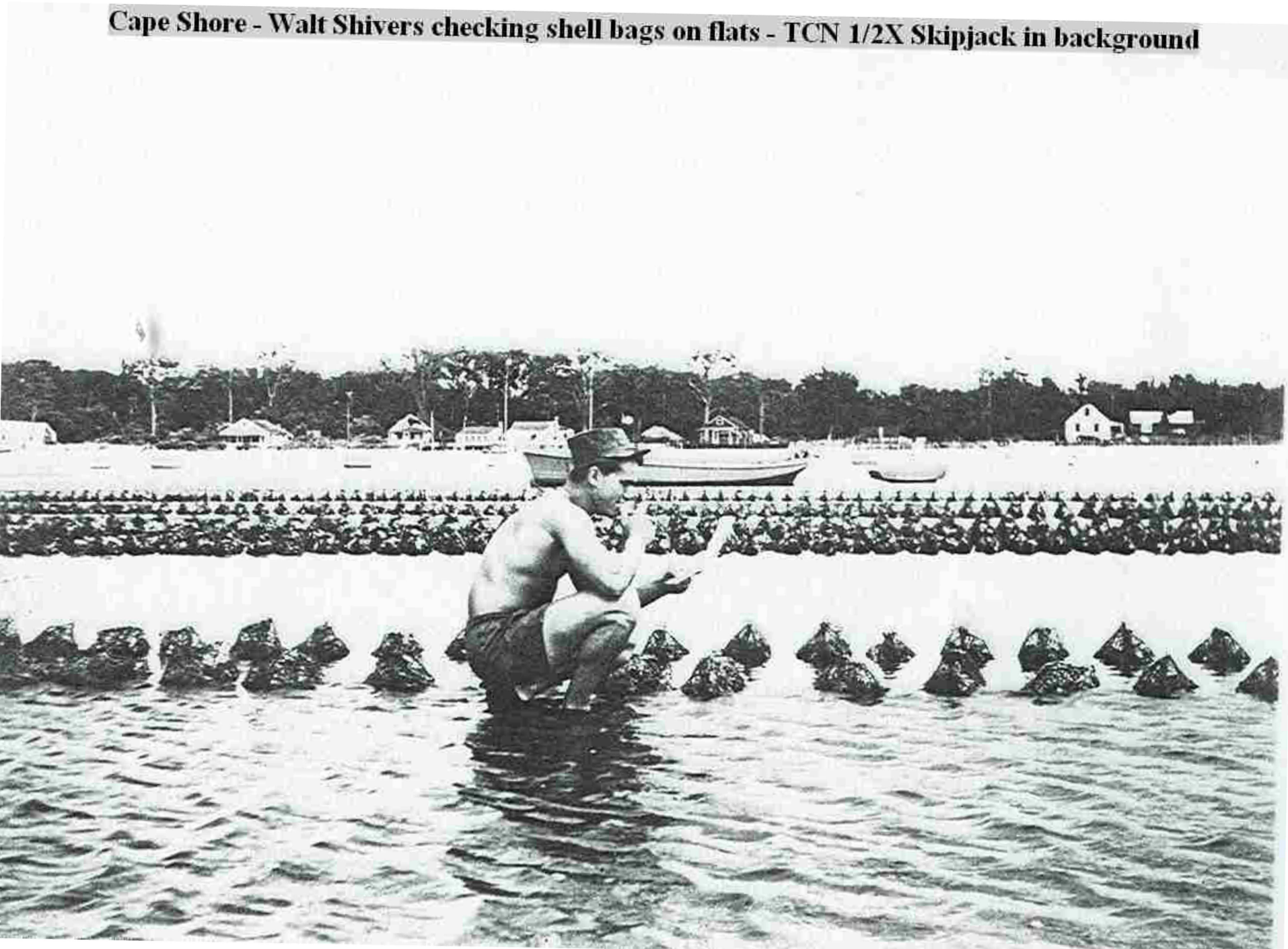
Amos Pepper Oyster RR at CS, offshore end, 1930s; TCN pixit;

Photo after 1932 (note Nunn studio addition); short rails to north for haulig boats.

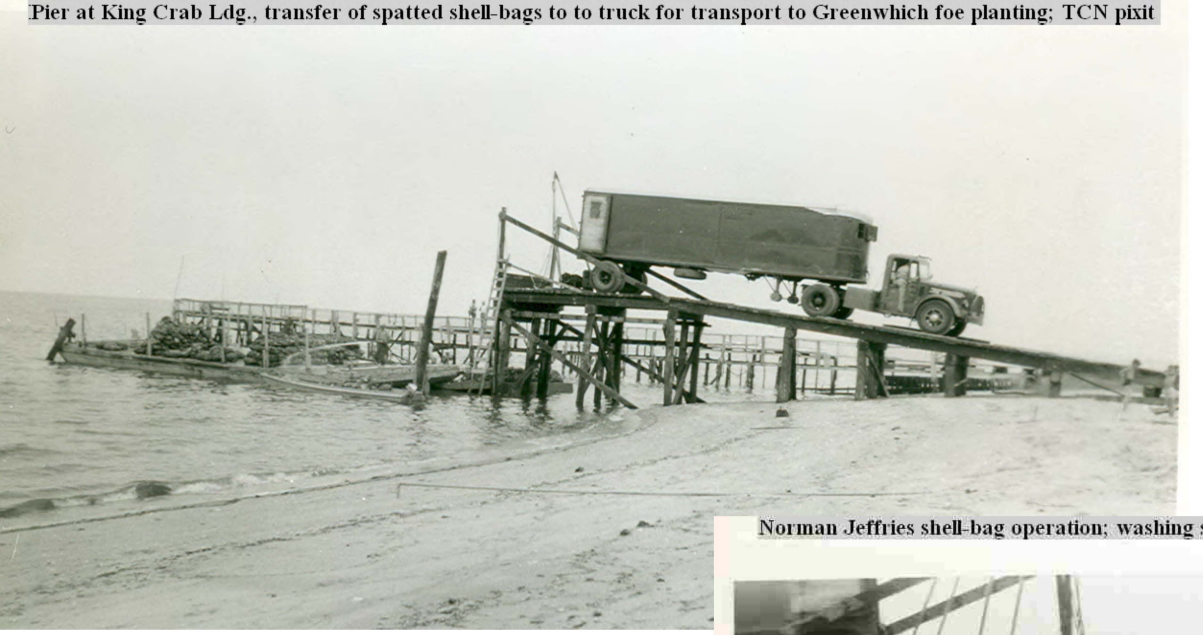
Cape Shore Oyster Tray RR by Pepper; after 1932, note studio wing; TCN pixit

Still using wood-sided trays, prior to introduction of SEA RAC trays in mid-1930s

Cape Shore - Walt Shivers checking shell bags on flats - TCN 1/2X Skipjack in background



Pier at King Crab Ldg., transfer of spatted shell-bags to to truck for transport to Greenwhich foe planting; TCN pixit



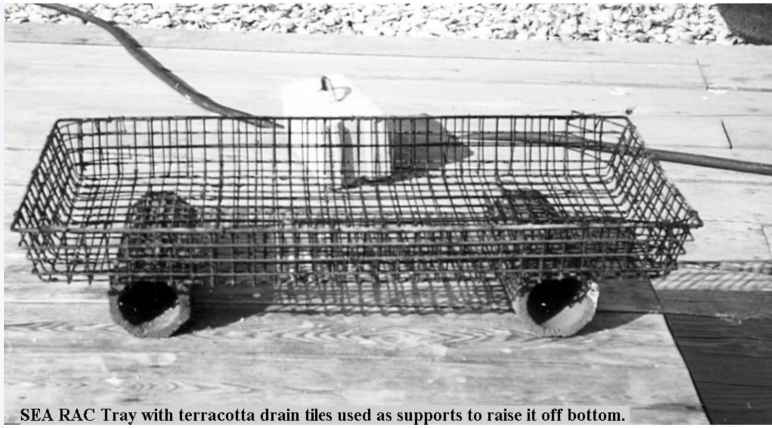
Norman Jeffries shell-bag operation; washing spatted bags prior to shipping them to Greenwhich. 1951 ca. TCN pixit

BROWNIE with load of spatted bags - CS 1951

Monitor of Norman Jeffries used in bagged shell operation for several years

CONTAINERISED CULTURE METHODOLOGY

Initially, contained culture systems employed various wooden-sided trays or frames with wire mesh or wood-slatted bottoms. In the late 1930s, a robust tray constructed of heavy gauge welded iron wire and coated with pitch was introduced by Norman Jeffries, who purchased these SEA RAC Trays from a company that developed them for culturing oysters in the rivers entering the Virginia portion of Chesapeake Bay. These trays were mounted on wooden or metal frames or racks (often discarded trolley track rails). In more recent years, the rigid trays, which require periodic recoating and had dimensions proportioned for a user community with stronger backs, have been replaced by a variety of rigid or semi-rigid trays or mesh bags fabricated of synthetic resins. The current racks are typically formed from steel rod used for concrete reinforcement, hence the term "*rack & bag*" culture.



SEA RAC Tray with terracotta drain tiles used as supports to raise it off bottom.

T C and J Richards Nelson checking SEA RAC tray cultures

Rich Lutz with oysters in Sea-Rack Trays at Cape Shore

Commercial-scale dense planting on about 3 acres that began in the early 1960s

Area on CS flats with surf clam shell planting in front of sedge island 1962

Jeffries Planting of surf clam shell on Cape Shore flats 1964, Hidu pixit

Stew Tweed collects natural-set yearlings from reef formed on a cull pile on Cape Shore flats

HSRL/NJAES facility on Cape Shore showing buildings from original 1927 lab on left to new dormitory on right in 2005.