




LEARNING TO SHELLFISH

Prepared by the

DEPARTMENT OF NATURAL RESOURCES

Shellfish & Law Enforcement Divisions

NAVIGATING THE LEARNING TO SHELLFISH PROGRAM

To advance through the presentation, press your **SPACE BAR** or  (arrow down) key to move to the next slide.

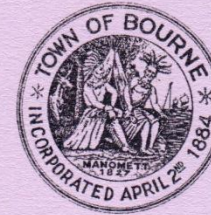


SHELLFISHING REGULATIONS

All the rules you need to know can be found in the booklet you receive when you apply for your Bourne Shellfish Permit.

The regulations are put in place to insure that the shellfish stocks in Bourne remain healthy and sustainable for all.

Please read through this booklet and familiarize yourself with the regulations. Ignorance of the law is never a legitimate excuse for a violation.



TOWN OF BOURNE
DEPARTMENT OF
NATURAL RESOURCES
SHELLFISH REGULATIONS

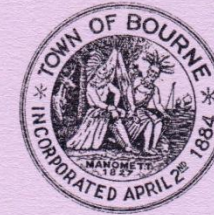
EFFECTIVE JANUARY 1, 2021



24 PERRY AVENUE, ROOM 102
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MASSACHUSETTS 02532-3441
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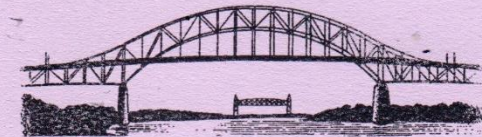
SHELLFISHING REGULATIONS

*Here is a brief look at
rules we find are most
often overlooked or
ignored.*



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HARVESTING & GENERAL PROVISIONS

SHELLFISH PERMITS

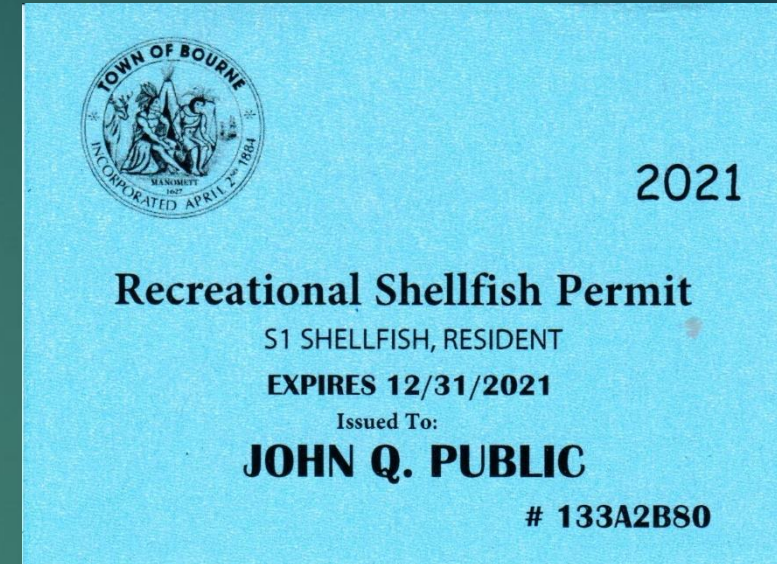
No person may harvest eels, sea worms, and any shellfish without a current **SHELLFISH PERMIT** issued by the Town of Bourne.

Harvesting means to catch, dig, take, or attempt to catch, dig or take or otherwise have in your possession any species covered by these regulations.

The Shellfish Permit is valid from January 1 to December 31 each year.

Types of Permits:

Resident (Bourne or Sandwich resident / property owner)
Senior Citizen (65 years or older)
Mass. Resident
Native American
Veteran & Veteran Senior (Hon. Disch. or DD214)



**WHEN SHELLFISHING, YOUR PERMIT
MUST BE IN YOUR POSSESSION &
DISPLAYED ON YOUR OUTER CLOTHING
OR BOAT OR DIVERS FLAG**



HARVESTING & GENERAL PROVISIONS

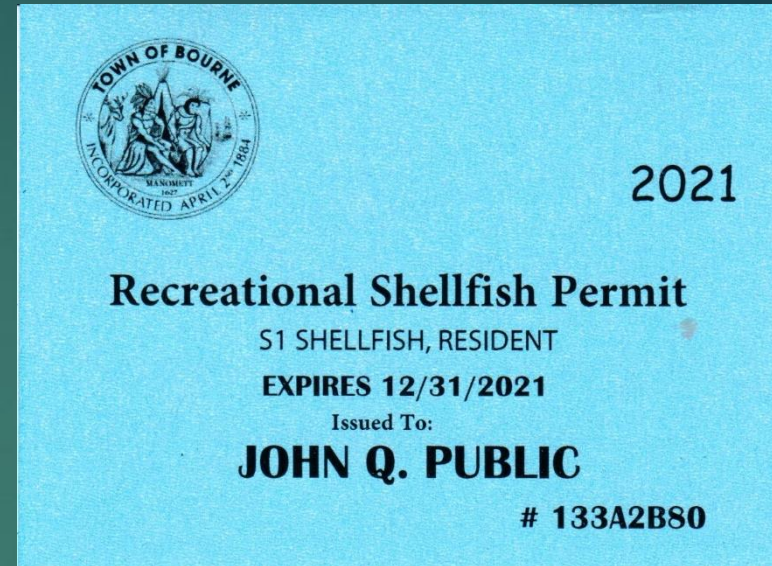
SHELLFISH PERMITS

Resident (Family) permits may be used by any member of that household (i.e. they must live under that roof). Only one (1) shellfish container is allowed for each permit.

Senior permits – The senior citizen whose name appears on the permit **MUST** be present and actively shellfishing with any other family members present. Only one (1) shellfish container is allowed for each permit.

Permits are not transferable. Only one permit per residence will be issued.

A permit may be suspended or revoked by the Board of Selectmen for any violation of these regulations following a public hearing.





HARVESTING & GENERAL PROVISIONS

REQUIRED GEAR

When shellfishing in Bourne, you must have the following required equipment:

SHELLFISH GAUGE - Used to measure quahogs, steamers and oysters.



SHELLFISH CONTAINER – A standard wire one (1) peck basket. A peck is 537.605 cubic inches and is measured level to the top of the rim.



These two items are a “must have”!

- **You are required to measure EVERY shellfish before it goes into your basket.**
- **Your weekly limit may not exceed ONE peck per species.**
- **Your daily limit is ONE peck – either one species or combined catch of what may be legally taken that day.**



SHELLFISH VARIETIES & HOW TO MEASURE THEM

HARD SHELL CLAMS

aka Quahogs, Littlenecks, Cherrystones, & “Chowdas”



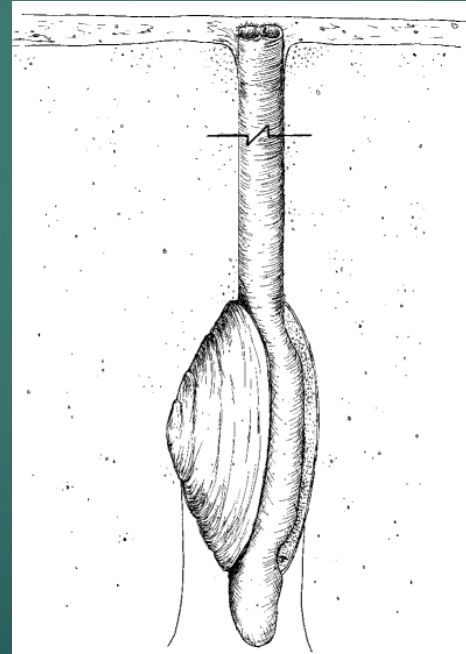
Photo courtesy of Barnstable DNR

Quahogs are sized from Littlenecks (smallest) to Cherrystones to Chowda's (the largest).

Color ranges from light gray to black depending on where they were harvested.

SHELLFISH VARIETIES & HOW TO MEASURE THEM

SOFT SHELL CLAMS aka Steamers



Steamers burrow foot first into the sand or mud up to 6 inches. They extend their neck to siphon water allowing them to feed and breath.

When replacing seed, be sure to set them back in the bottom 2-3 inches with the neck facing up.



SHELLFISH VARIETIES & HOW TO MEASURE THEM

SOFT SHELL CLAMS aka Steamers



To find them, watch for the hole that the neck makes in the mud or sand.

Other species (such as sea worms) live in the bottom and make holes to breath and feed.

SHELLFISH VARIETIES & HOW TO MEASURE THEM

OYSTERS



Oysters are found in several locations in Bourne and generally form “reefs” where they cling to rocks or shells of other oysters. At low tide they may be high and dry making them easy to find.



SHELLFISH VARIETIES & HOW TO MEASURE THEM

OYSTERS



Oysters may only be taken with a Recreational Permit on Sundays in November and December.



SHELLFISH VARIETIES & HOW TO MEASURE THEM

SCALLOPS (Bay)



Bay scallops are elusive in Bourne. Some years we have a good crop and in other years they are almost non-existent.



SHELLFISH VARIETIES & HOW TO MEASURE THEM

SCALLOPS (Bay)



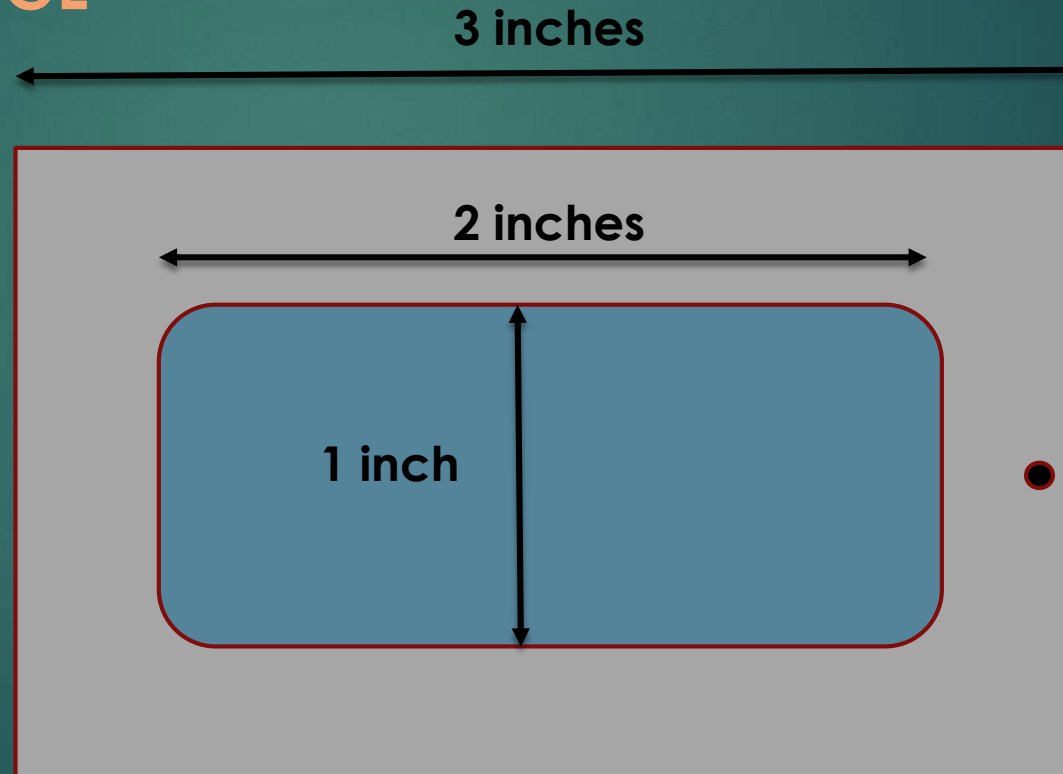
Bay scallops can be harvested by dip net, bag rake, SCUBA diving, snorkeling, and by boat with a drag.

The season runs 7 days a week from October 1 through March 31st.



SHELLFISH VARIETIES & HOW TO MEASURE THEM

3 WAY SHELLFISH GAUGE





SHELLFISH VARIETIES & HOW TO MEASURE THEM

Shellfish Regulation 1.5 and 1.7

1.5 SHELLFISH SIZE LIMITS: No person shall harvest quahogs less than 1" hinge width, soft shelled clams less than 2" shell length and oysters less than 3" shell length or scallops without a well defined growth ring. All other shellfish shall be in compliance with state regulations. Harvesting of seed shellfish more than 3% of any batch is prohibited. (see 1.7 below)

1.7 DISPOSITION OF SEED: **All shellfish shall be measured prior to placement into the shellfish container. All seed shellfish shall be immediately returned to the same location from which it was harvested.** Oyster seed smaller than 1" attached to adult shell shall not be harvested. It shall be left intact and the adult returned to the water below the mean low water line.

Regardless of the 3% allowance in SF 1.5, SF 1.7 requires all shellfish to be measured prior to being placed in the basket. Seed must be returned to where it was harvested IMMEDIATELY. Possession of seed will result in an enforcement action by the NRO or Shellfish Constable.

"Seed" means any shellfish smaller than legal size.

SHELLFISH VARIETIES & HOW TO MEASURE THEM

QUAHOGS

Quahogs are measured by "HINGE THICKNESS" (min. of 1 inch)
If it falls through the opening – it is too small ("seed") and must be put back

Too Small



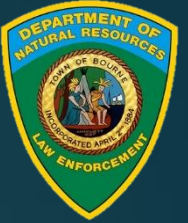
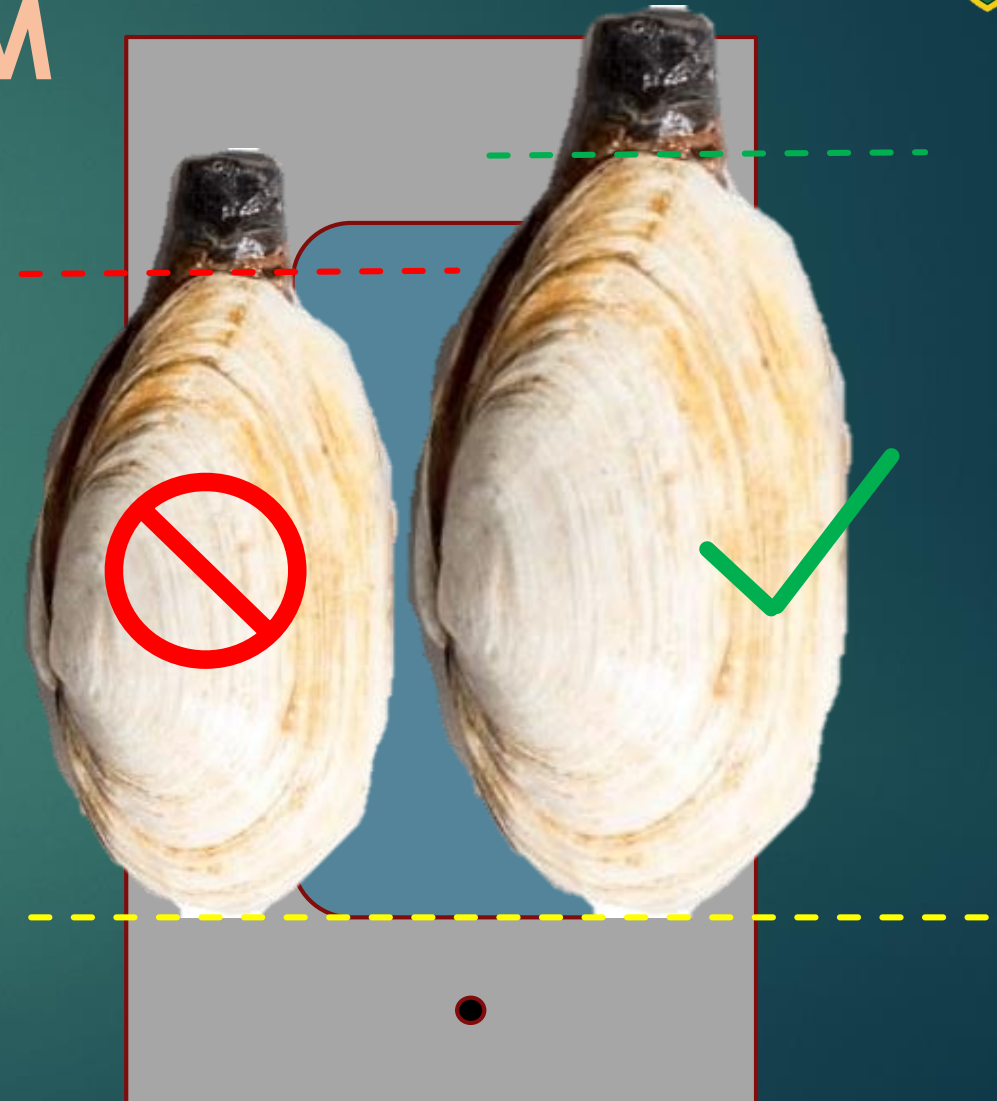
Legal Size



SHELLFISH VARIETIES & HOW TO MEASURE THEM

STEAMERS

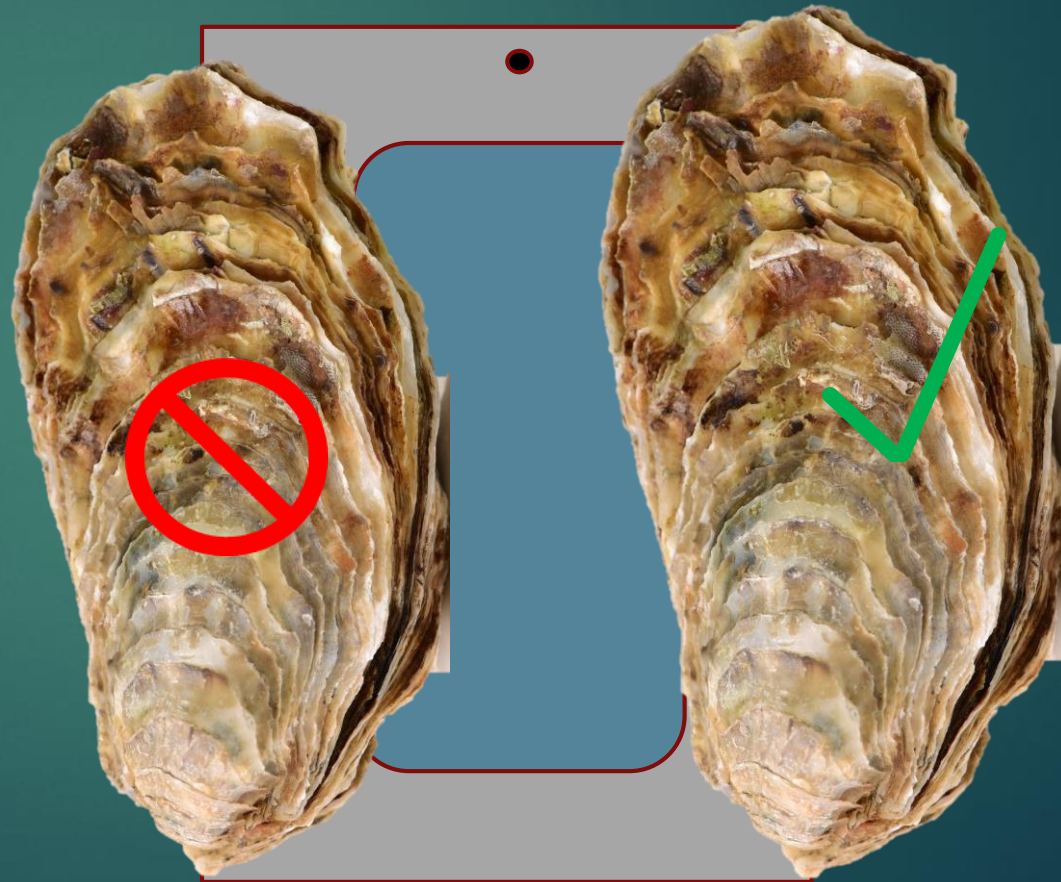
Steamers are measured by "SHELL
LENGTH" (min.of 2 inches)
If it is shorter than the long side of the
cutout – it is too small ("seed") and
must be put back



SHELLFISH VARIETIES & HOW TO MEASURE THEM

OYSTERS

Oysters are measured by "SHELL
LENGTH" (min. of 3 inches)
If it is shorter than the LONG side – it
is too small ("seed") and must be put
back



SHELLFISH VARIETIES & HOW TO MEASURE THEM

OYSTERS

Oyster seed longer than 1" attached to adults shall be separated and the seed broadcast back below the mean low water line. The adult may be harvested.



SHELLFISH VARIETIES & HOW TO MEASURE THEM

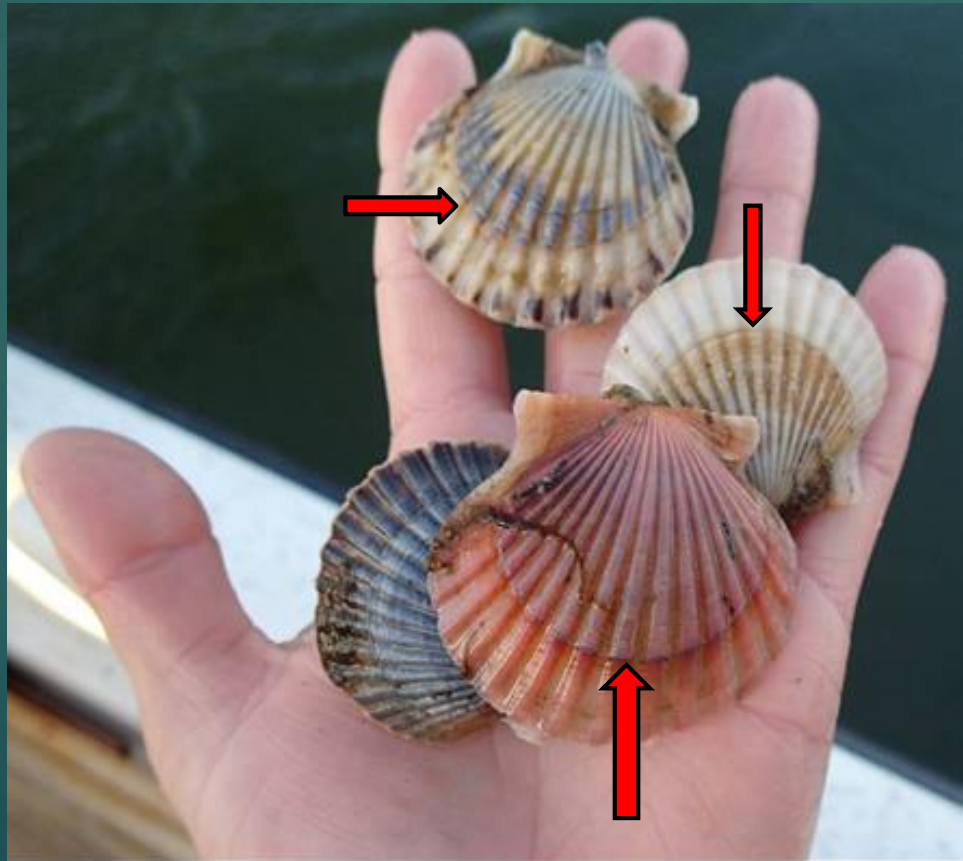
OYSTERS

Oyster seed smaller than 1" attached to adults shall be left on the shell and both shall be broadcast back below the mean low water line. **Neither the adult or seed may be harvested.**



SHELLFISH VARIETIES & HOW TO MEASURE THEM

SCALLOPS



Scallops are **not** measured by "SHELL LENGTH". They must be adults and have a **"well defined, raised annual growth ring"**. Any scallop without the growth ring is deemed seed and must be put back

Photos courtesy of Barnstable
Dept. of Natural Resources



SHELLFISH HARVESTING HOURS

**SUNRISE to SUNSET – ALL SPECIES,
YEAR ROUND**

Shellfishing may not begin until “SUNRISE” as computed by NOAA for Bourne.

All shellfish must be harvested, culled and landed above the mean high water line by SUNSET.

SHELLFISH HARVESTING TOOLS

SHOVELS & STANDARD GARDEN PITCH FORKS ARE PROHIBITED

THESE TOOLS ARE PROHIBITED



These tools are OK



SHELLFISH HARVESTING



DRY DIGGING QUAHOGS HARVESTING SOFT SHELL CLAMS & SCALLOPS

You may NOT dry dig Quahogs or harvest scallops or soft shell clams when the temperature is below 28°F as measured by the DNR.



SHELLFISH HARVESTING



OPEN AREAS

Areas which are open are marked with a GREEN sign like the one here.

Make sure the sign says, “**OPEN TO ALL SHELLFISHING**” since there are other town signs which are green.



SHELLFISH HARVESTING

CLOSED AREAS

Areas which are closed to shellfishing are marked by RED signs like the one here. If there is a red arrow by the sign, it indicates that area in the direction of the arrow is CLOSED.

Areas are closed for various reasons – water quality, propagation, contamination, etc. all of which can lead to health issues if you consume shellfish harvested from these waters.

If in doubt whether an area is open or closed – always call the DNR to check.



SHELLFISH HARVESTING

DESIGNATED OYSTER BEDS



CLOSURE TO SHELLFISHING

The designated OYSTER BED located on Taylor's Pt. is closed for shellfishing except when open for oyster season (November 1 to December 31).

No other species of shellfish may be harvested on this oyster bed except during the oyster season.

At no time is the use of dredges, tongs, bull rakes, or boats for harvesting shellfish permissible on the designated oyster bed



SHELLFISH HARVESTING

INSPECTION OF CATCH



Anyone shellfishing or anyone in possession of shellfish or fish of any kind in a boat or container, shall exhibit such shellfish or fish for inspection upon demand of any Shellfish Constable, Natural Resources Office or Police Officer.

Catch will be inspected for species, size and quantity.



SHELLFISH HARVESTING

INSPECTION OF CATCH



Not a Level Peck



Level Peck





SHELLFISH PROPAGATION

**HOW THE TOWN'S PROPAGATION PROGRAM
MAKES SHELLFISHING BETTER FOR YOU**



SHELLFISH PROPAGATION

WHAT IS SHELLFISH PROPAGATION?

Propagation means any shellfish planting activity conducted by municipalities or the state to increase the supply of shellfish available to the public fisheries. Propagation enhances the shellfish population in Bourne waters with the overall goal to improve the commercial and recreational shellfishing industry in Bourne.

HOW DOES THE TOWN ACCOMPLISH THIS?

The town's shellfish propagation program consists of three elements –

1. Shellfish seed raised in town upwellers and placed in town waters to grow to legal size;
2. Quahog relay stock from the Taunton River which is placed in closed areas and allowed to clean out before that area is opened for harvesting; and
3. The natural reproduction which occurs with the wild stock that exists in Bourne waters.

SHELLFISH PROPAGATION



BENEFITS

1. Improvement in water quality;
2. Economic benefit from commercial & recreational shellfishing; and
3. Supports the “Blue Economy”.



SHELLFISH PROPAGATION



UPWELLER

The upweller is the nursery for shellfish. The “spat” or newly hatched shellfish are purchased by the town. They are nurtured in the upweller until they are large enough to plant in town waters.



The trough in the center contains the pump which will supply water to the silos which will occupy the space to the left and right.



Installing the silos in the upweller. The silos will hold the spat as they grow to a size where they will be transferred to pouches.

SHELLFISH PROPAGATION



UPWELLER

When received, the spat are tiny. You can fit several thousand in your hand.



250,000 juvenile quahogs



Oyster spat

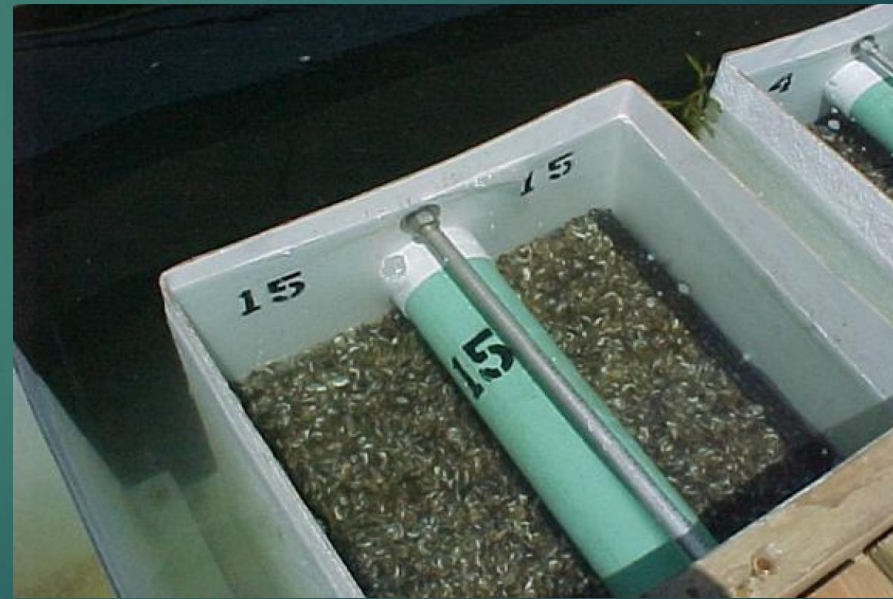
SHELLFISH PROPAGATION

UPWELLER

The silos hold the juvenile shellfish as they grow. The mesh bottom allows the water to circulate over and around the seed. As the seed grows, some is moved into other empty silos so as not to overcrowd the silo.



Seed being placed in silos



Silos loaded with seed

SHELLFISH PROPAGATION



UPWELLER

The pump in the center trough circulates sea water into the silos to provide nutrients. The seed feed on these micro organisms (phytoplankton) and grow rapidly as you can see in these photos.



Fresh seed quahogs



After 3 weeks

SHELLFISH PROPAGATION



UPWELLER

While oysters and quahogs start at approximately the same size, the oysters grow faster than quahogs.



Oysters at six weeks



Oysters at nine weeks

SHELLFISH PROPAGATION

OUT OF THE UPWELLER AND ON TO THE BOTTOM

When the seed get too large for the silos, they are transferred into mesh bags or “pouches” and placed in shallow water where they can be tended by the staff. Others may be broadcast into closed areas to grow.



Quahogs



Oysters

SHELLFISH PROPAGATION



OUT OF THE UPWELLER AND ON TO THE BOTTOM



Thousands of quahogs and oysters are transferred from the silos into totes and then into pouches

SHELLFISH PROPAGATION

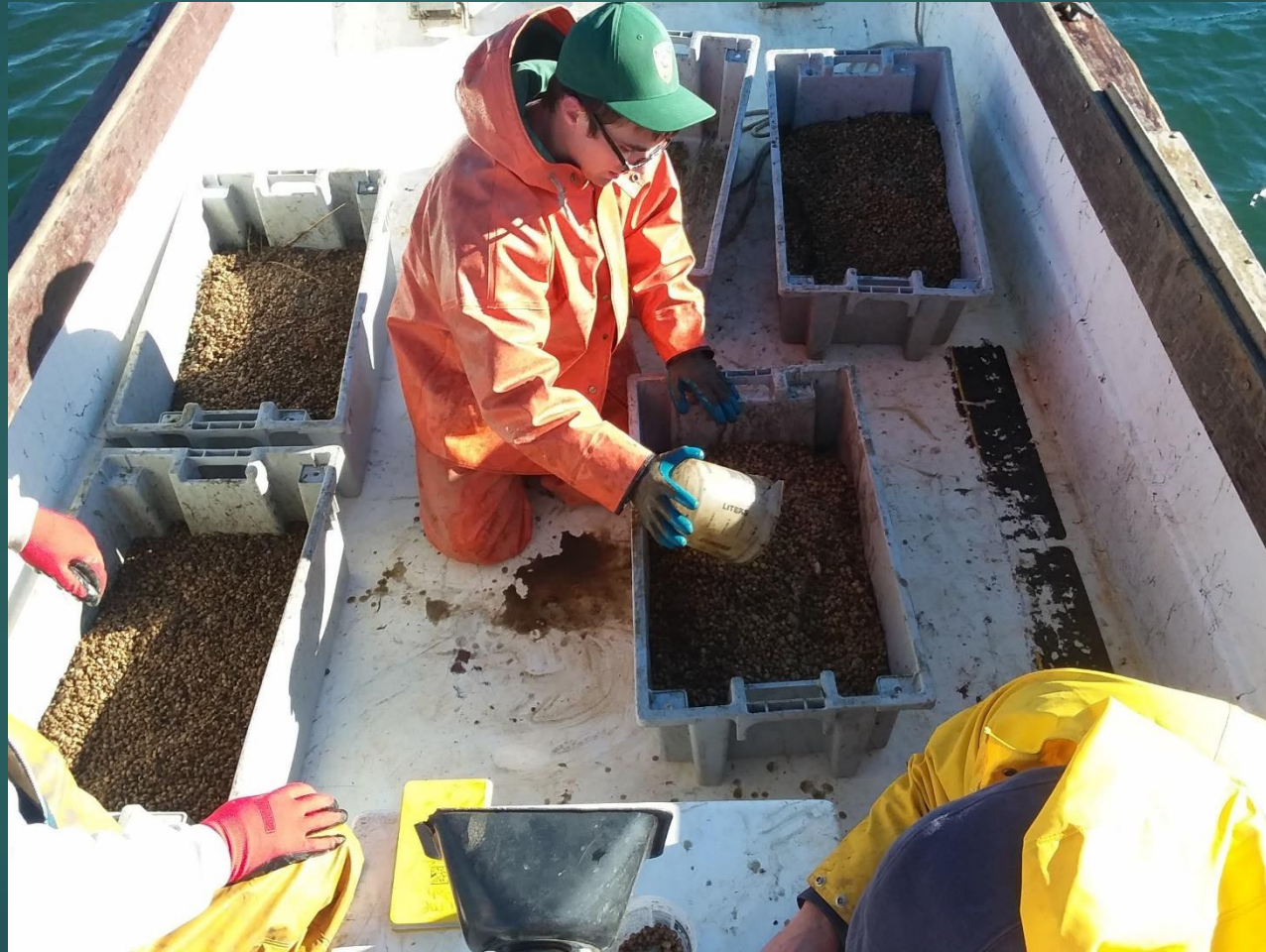


OUT OF THE UPWELLER AND ON TO THE BOTTOM

Soft shell clams require special preparation and protection from predators such as green crabs and birds. Netting is placed over the planted areas and staked down.



SHELLFISH PROPAGATION



About 20,000 quahogs fresh from the silo headed for pouches

SHELLFISH PROPAGATION



OUT OF THE UPWELLER AND ON TO THE BOTTOM

On some larger aquaculture grants, the number of bags is staggering.



SHELLFISH PROPAGATION



PROPAGATION

The end result is more shellfish for recreational and commercial fisherman.



NOTE: This is NOT a
"level peck" as required
by our regulations.

SHELLFISH PROPAGATION



PROPAGATION via QUAHOG RELAYS

The quahogs are taken from the Taunton River by a fishing boat utilizing a hydraulic dredge.



SHELLFISH PROPAGATION



PROPAGATION via QUAHOG RELAYS

The quahogs are weighed and bagged in 80 lb. bushel bags or totes then transported to the receiving town. Once there they are loaded on to a DNR work boat.



SHELLFISH PROPAGATION



PROPAGATION via QUAHOG RELAYS

The quahogs are then taken to a preselected closed area where they are broadcast back into the water. There, they depurate themselves and go through one or more reproductive cycles which also aid the propagation program.



SHELLFISH PROPAGATION



PROPAGATION via QUAHOG RELAYS

Quahog Relay Areas normally stay closed for about 2 years. Prior to the planned reopening, shellfish from the area must be tested by the state to insure healthy edible stock.





The program's main focus is to continue to enhance and improve the recreational and commercial shellfish program within the Town of Bourne

THE TOWN OF
BOURNE WELCOMES
ALL INDIVIDUALS
THAT ARE
INTERESTED IN
VOLUNTEERING TO
HELP THE SHELLFISH
PROPAGATION
PROGRAM

For anyone who is interested in volunteering for the program please contact the Town of Bourne's Shellfish Technician **Michael Corson** for more information at
Mcorson@townofbourne.com

Shellfish Volunteering

TOWN OF BOURNE



WHY ARE SHELLFISH BENEFICIAL?

- Shellfish harvest helps to improve sediment quality by loosening and dispersing silt, and helps add oxygen to bottom waters and sediments.
- Shellfish help control harmful algal blooms, such as red tide, by removing algal cells before they accumulate to harmful levels.
- Shellfish remove nitrogen from the environment that is removed when the animals are harvested.
- Oysters can filter 100 gallons of seawater in a single day as part of their natural feeding process.
- Shellfish beds provide critical ecosystem functions by creating structure and habitat for other species such as crabs, worms, and juvenile fish, that provide a food source for fish and other marine species.



WHY WE NEED YOU!

Volunteers play a huge role in helping with our projects. There is a project for anyone and everyone! Projects can last anywhere from an hour to a few hours depending on what we are trying to accomplish.

Projects include:

Assembling/Repairing of grow-out gear
Sorting and cleaning the town's upwellers
Maintaining grow-out gear (bag flipping) & oyster culling
Assisting with shellfish seed planting



SHELLFISH PROPAGATION

SHELLFISH VOLUNTEER PROGRAM

Basic Requirements

Be over 16 years of age and in reasonably good health;

Be willing to commit to working several hours per week

Be willing to work outdoors and possibly on a boat

Sign a Liability Release Hold Harmless agreement

Eligible seniors may be able to take advantage of the
SENIOR CITIZEN TAX CREDIT PROGRAM which is administered through
the Bourne Council on Aging.

Interested people should contact DNR Shellfish Technician Mike Corson at mcorson@townofbourne.com

SHELLFISHING 101



The most frequently asked question the DNR gets is, “Where in town can I get the most quahogs, oysters or steamers in the shortest amount of time.”

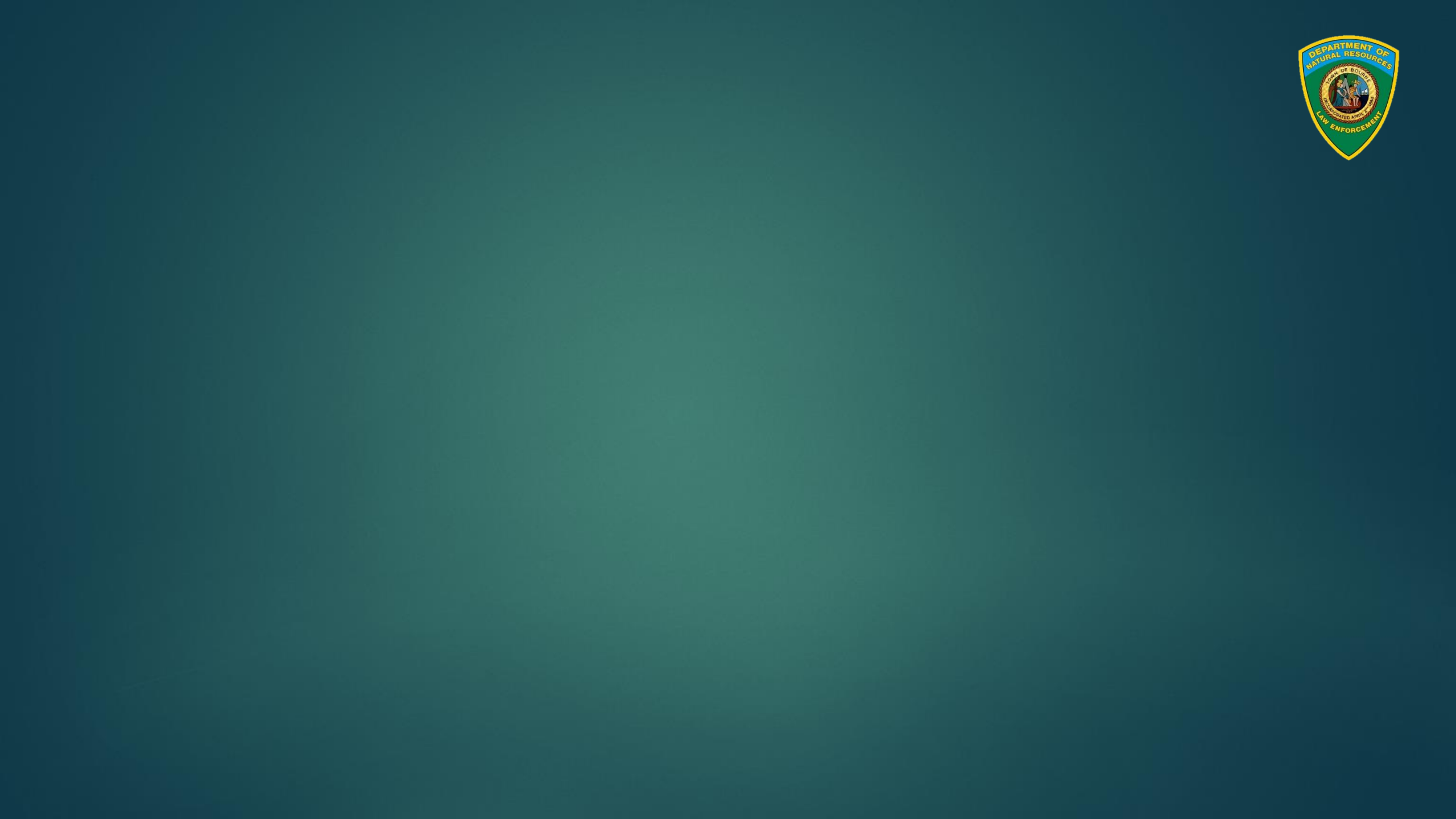
We know all the secret “best spots” but I will only tell you one...



SHELLFISHING 101



Thank you for your interest in Bourne's Shellfish Program. Since the pandemic has made holding classes impossible, we hope this presentation has been helpful to you. If you have any questions, please feel free to contact the DNR office at 508-759-0600 ext. 1504





Thank you & good fishing

Bourne Dept. of Natural Resources

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(508) 759-0600 x1504