

Nantucket Lightship South “Deep” Discussion Document

What we know, PDT input to date

- **What:** Stochastic recruitment event produced the 2012-year-class in the NLS South. There is one year class in this area, the highest densities of which settled in deeper water with marginal habitat.
- **Where:** Two high-density patches in the NLS-S-deep SAMS area (i.e. depths of 70 m or more) (Figure 2, Figure 3).
- **How many scallops are in the area?** 2018 surveys estimated biomass of approximately 35,000 mt (3 billion animals) with an average meat weight of 10 g (i.e. approximately a 50-count).
- **Growth:** Deep water scallops are not growing normally. They have grown abnormally slow (Figure 1)—the animals are 7 years old, but are approximately the size of 3-to-4-year-old scallops.
- **Selectivity:** Survey dredge efficiency reduced in high density areas of NLS-S-Deep likely as a function of dredge filling. Fishery selectivity: 2018 VIMS survey dredge estimate of average shell-height was approximately 78 mm, meaning they are not fully recruited to the 4” ring.
- **Reproduction:** Relative spawning capability of animals in high densities appears to be lower than animals in other habitat/lesser densities. While the collected samples are pending analysis, the literature suggests that for resource limited animals, gamete viability is not compromised, but more a question of how many gametes are being released.
- **Increased natural mortality:** A decline in density observed between the 2017 and 2018 surveys suggesting some mortality was occurring in the absence of fishing. The PDT suggested that some density dependence and(or) environmental factors may be driving mortality (see in-progress VIMS project addressing these questions).
- **Management considerations:** This area is very close to other access areas—a conservative buffer around the slow growing scallops should be considered.
- **Fishing:** These scallops were available to the fishery in 2018 as part of FW29, but the fishery did not target them.

“There is no biological reason not to harvest these animals.” – Scallop PDT (on multiple occasions).

AP discussion to date

- Focus on shell stocking and landing whole scallops instead of processing at sea to avoid cutting high count (>45-count) scallops.
 - Scenario: 8-man crew cutting 50 count, at best 1k a day. \$5 at best. Stock \$5,000 a day at best. This is not a scenario for processing at sea.
- Make harvest optional to LA and LAGC vessels.
- Scallop industry has helped steward the recovery of the fishery – make the opportunity available for existing industry.

Harvest approach strawman, other ideas

- Allocate to everyone (LA and LAGC IFQ) as part of the ACL, but before the split to the LA and LAGC IFQ sub-ACL.
- Manage allocation like NGOM TAC – available to all LA and LAGC IFQ permit holders on first come, first serve basis. Develop trip limits? Area closes when TAC is met.
 - Require VMS pings every minute when fishing, and every 15 minutes when transiting – it should be a straight shot back to the dock.

- If this is about harvesting the small animals that are 50/60 count, draw a conservative boundary that focuses on the highest density areas that hold high counts of scallops (vs. “working around the edges” to catch 20/30 counts).

Key Question: Do we want to harvest these scallops?

Potential consideration for FW32: Allocate through 2020/2021 specifications action following the 2019 surveys. Council could identify a range of measures to support harvest in NLS-S-Deep (i.e. crew limits, trip limits, etc.). This might include identifying exemptions that could be requested.

Figure 1 – Length frequency plots from VIMS dredge survey of NLS-S-deep from 2016, 2017, and 2018.

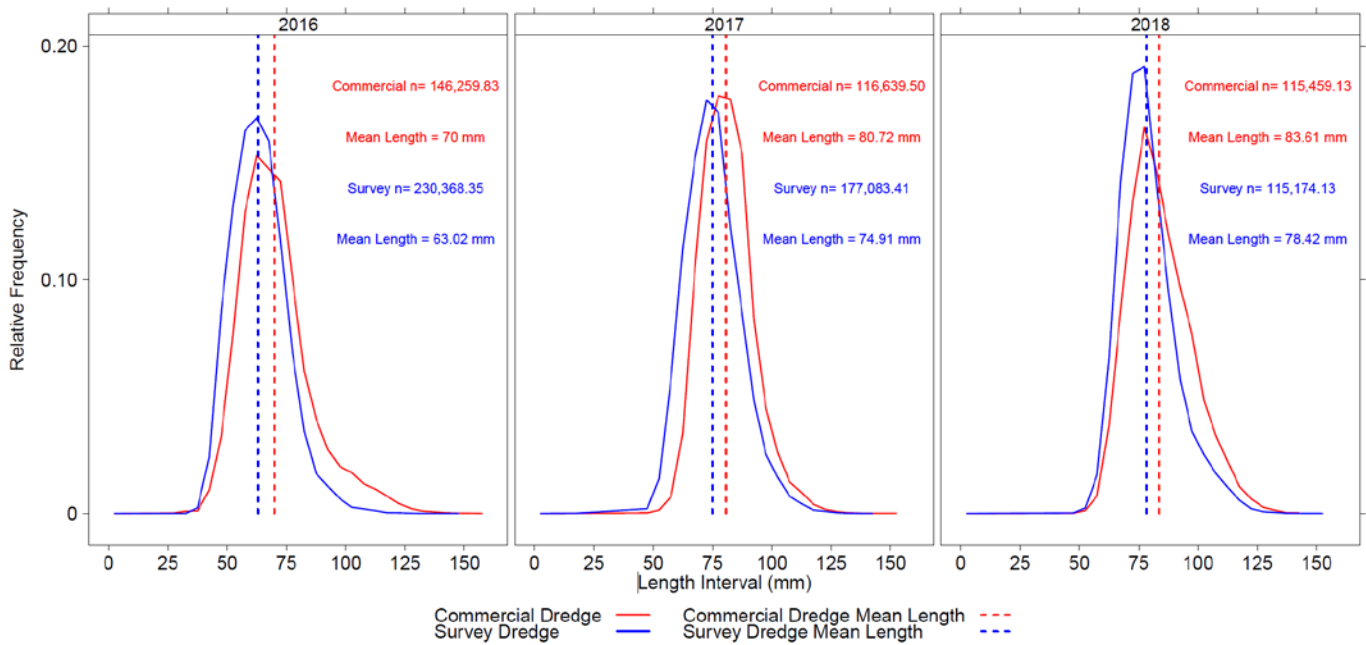


Figure 2 – Recruit scallop density at 2018 SMAST drop camera survey stations on Georges Bank based on digital still camera observations.

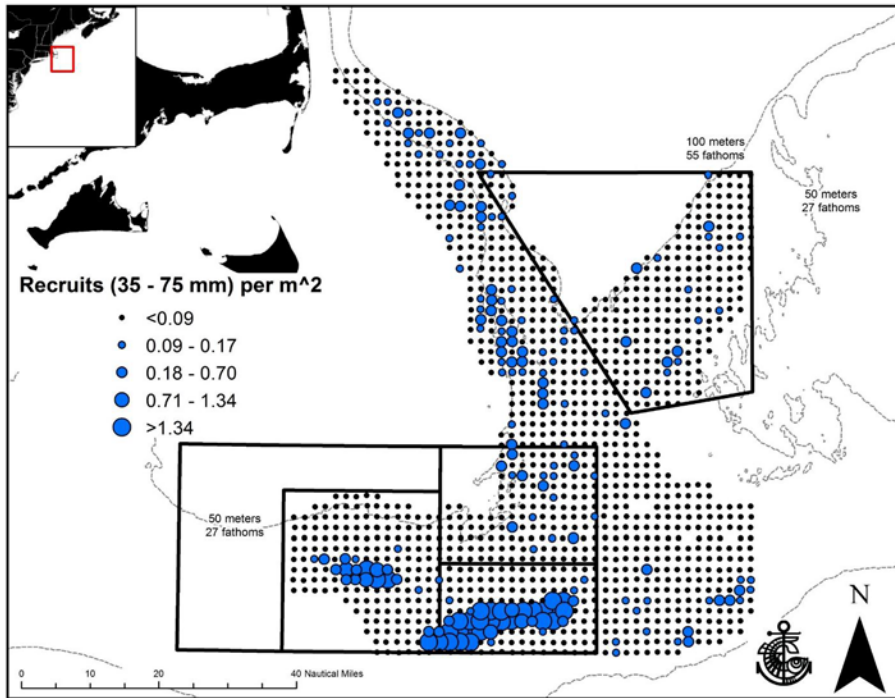


Figure 3 – 2017 HabCam data of 75-100mm scallops with NLS-West and 'Notch' areas shown. Source: CFF

