



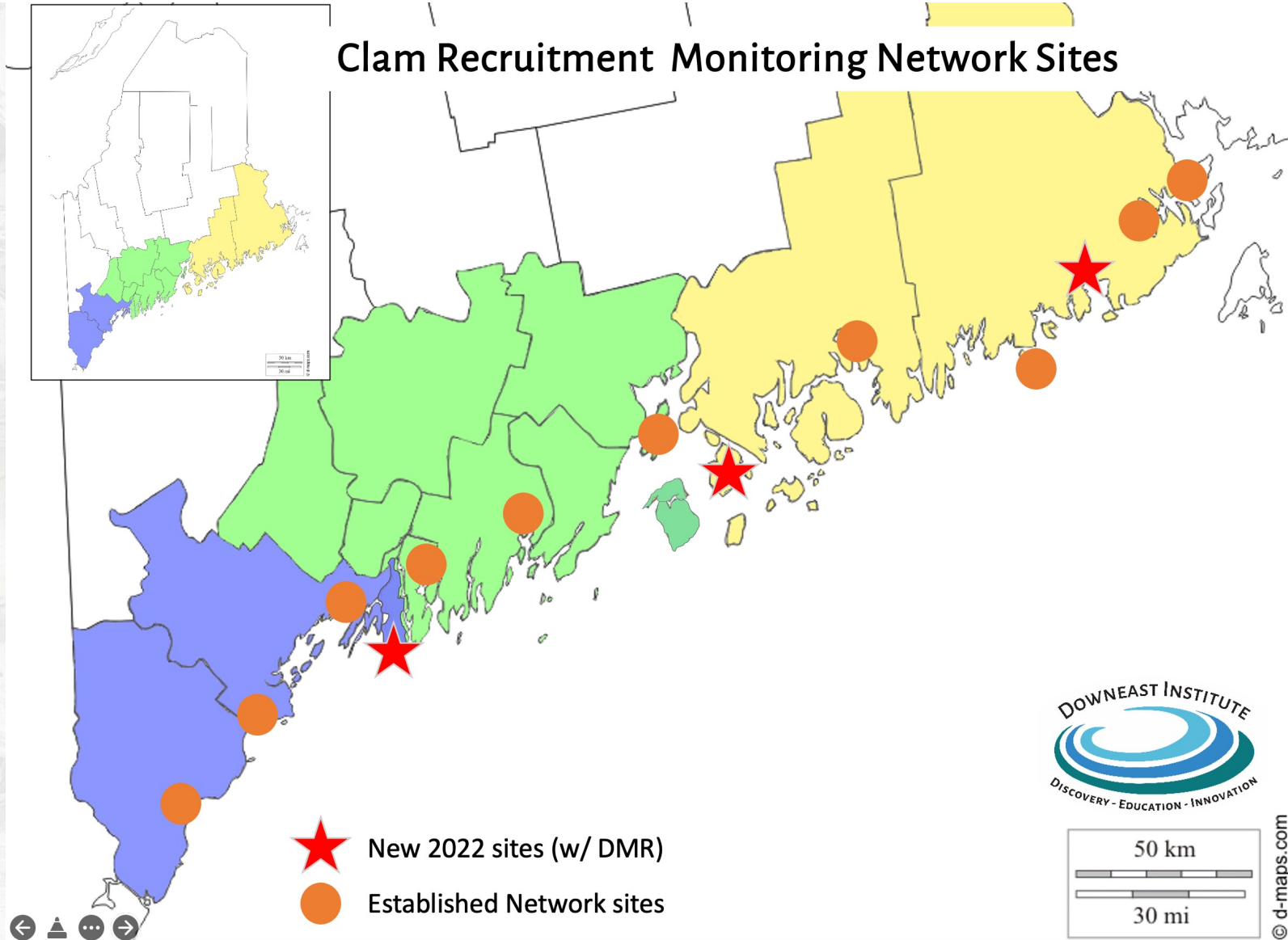
Shellfish Recruitment Monitoring Network in Casco Bay



February 17, 2022

Sara Randall
Associate Director
www.DowneastInstitute.org

Clam Recruitment Monitoring Network Sites



Casco Bay monitoring sites

Began in 2020

Funded through 2022

Established:

- Jones Creek, Scarborough
- Winnock Neck, Scarborough
- Thomas Point Beach, Brunswick
- Harpswell Cove, Brunswick

Likely 2022 locations:

- Wyman's Bay, Phippsburg
- The Basin, Phippsburg



Winnock Neck, Scarborough

Intertidal Ecosystem Monitoring

- Spring mudflat survey
- # of clams & other commercially important shellfish recruiting to mudflats (May- November).
- Recruit growth rates
- # and size of invasive green crabs, and other predators
- Fall mudflat survey
- Estimate of recruit survival rate (# of recruits in boxes vs in adjacent mud).
- Temperature
- Carbonate chemistry of mud (Beals).



2021 Scarborough Data

Avg. # of clams/ft²

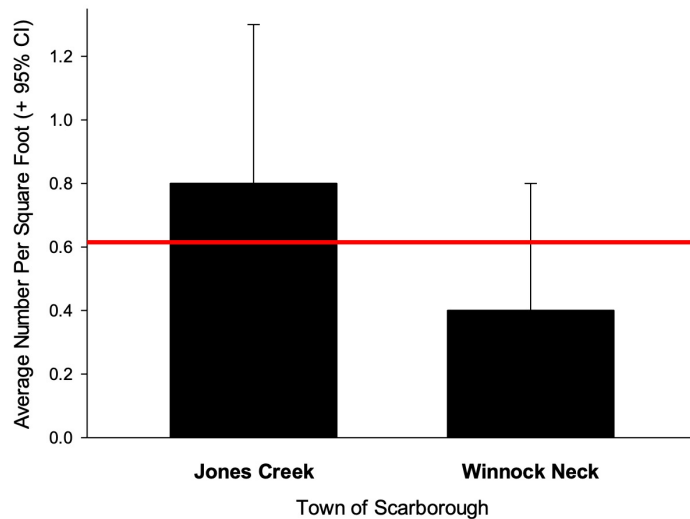


Figure 13. Average number of 0-yr class recruits of the soft-shell clam at two tidal flats in Scarborough (29 April to 4 November 2021). No significant difference in mean density was observed between the two flats ($P = 0.2881$, Table 7). The red line is the average for the two locations (0.6 ± 0.3 clams/ft², $n = 32$).

| Location | # of clam recruits | # of green crabs |
|--------------|--------------------|------------------|
| Jones Creek | 20 | 229 |
| Winnock Neck | 11 | 111 |

2020 recruitment:

Jones Creek: 1.3 clams/ft²

Winnock Neck: 105 clams/ft² (3rd highest overall)

2020 Report on Downeast Institute website