Mussel Long Line Culture
The Long Island Sound Experience

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Seed is Abundant
Testing Socking Materials
Assembling Seed Collectors
Experiment

- Long lines were set in May 2001 at three locations in central Long Island Sound (based on literature, we expected a set in June)
- Seed visible on ropes in late August 2001 – likely set in July 2001
- Fairfield site was abandoned after longline dragged away
- Mussels reached market size (55mm) in March 2002, approx. 9 months from set
Mussel Health

• Dept. of Agriculture/Bureau of Aquaculture began monitoring project for one year (beginning Feb 2002)
• Sought information on predators, pests, disease issues
• Monitored water temperature, growth, biofouling
Pea Crabs

- Pea crabs, *Pinnotheres maculatus*, were absent or occurred at low prevalence (3.3%) in the first growing season.

- Mussels kept on the longlines past market size had a prevalence of 20% in November and peaked to 60% in January.

www.jaxshells.org
Trematodes

High prevalence of the trematode *Proctoeces maculatus*

Large areas of the mantle and visceral tissues were replaced with larval and adult parasites.

Abscesses were formed with adult trematodes surrounded by massive aggregations of host hemocytes.
Promise and Challenges

Exceptional growth rates in LIS compared with rates previously published for commercial mussel operations.

There was a 5-month "window of opportunity" for mussel culture between February and June, during which mussels were already of marketable size, free of fouling organisms and parasites and had good quality meats.
Promise and Challenges

Mussels were healthy in July and August, but were extensively fouled with *Crepidula*.

Providing a marketable product during summer would require the use of cleaners and debyssers.

Trematodes could be considered an economically important parasite of mussel culture in Long Island Sound.
Thank you!