

# Shellfish Aquaculture Gear

David Cerino  
Carteret Community College

# Where do you start?

- Species
- Location- depth, current, wind
- Existing Infrastructure
- Available Capital
- Market
- Production Plan

All can play a major role in which gear you choose

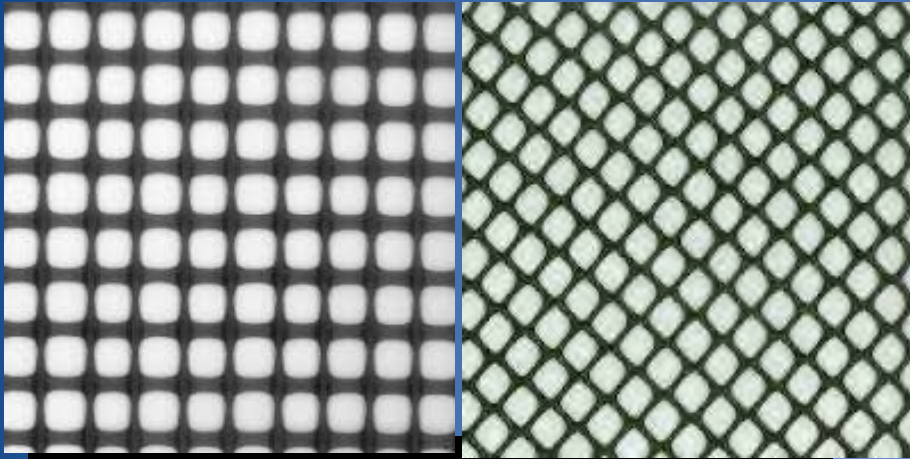
# Gear Selection

## Some Factors to Consider

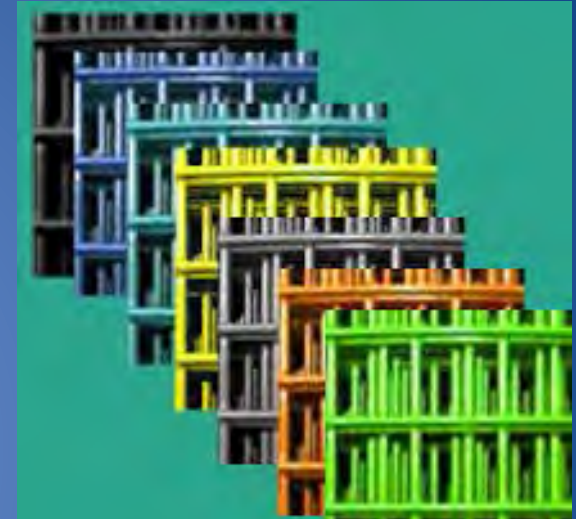
- Initial cost and gear life span
- Capacity (production unit)
- Handling (manual vs mechanical)
- Fouling control (labor)
- Predation
- Tumbling (shape, growth)
- Storms

# Materials

- Initial cost and gear life span



Extruded plastic mesh



Plastic coated wire

Fasteners:

Clips

Hog rings

Zip-ties

Pins

Hooks

Rope

Rigging:

Longline Clip

Ropes

Cables

# Fouling control

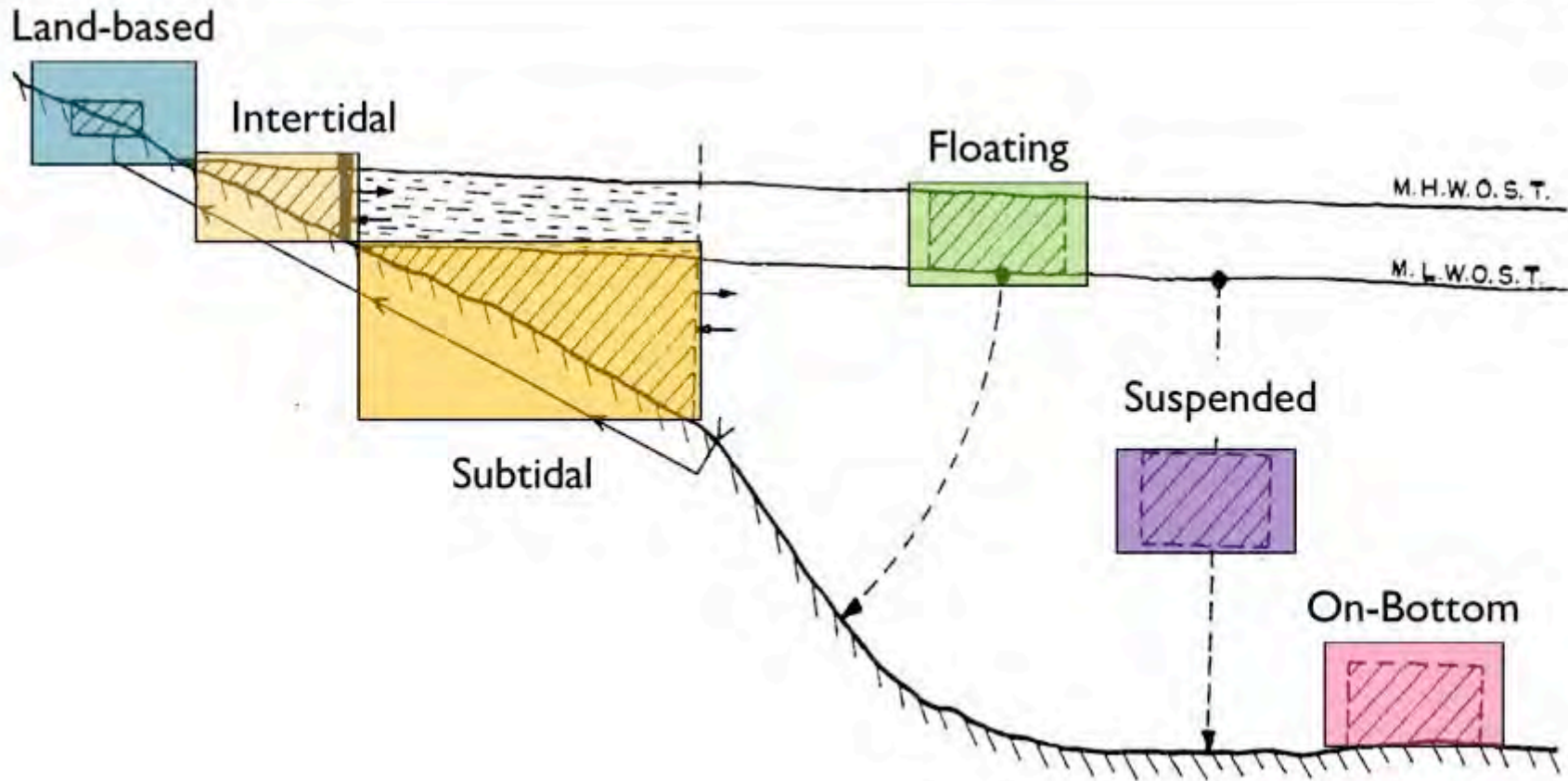
Fouling on Gear - inhibits flow and feeding

Fouling on Animals - affects product quality,  
can cause mortality

Reduce fouling by:

- Air Drying
- Dips
- Powerwashing
- Tumbling

# Zones for Culture Gear



# *On Bottom*



# Predator deterrence





# Oysters in trays directly on bottom



# Off - Bottom



Trays



Cages or Condos

# Rack and Bag



# Australian Long-line System



Fixed or adjustable height

# Suspended cages



Deeper water

# Floating Bags



# OysterGro or Oyster Ranch Floating Cages

Large floats dry  
gear and animals



# LowProGrow Floating Cages

Smaller cage easier to flip and handle  
Foam floats less expensive





# Cost examples

<b>Gear</b>	<b>capacity (harvest size)</b>	<b>approximate cost</b>
floating bag	150-200	\$20.00
Lowprogrow	250	\$35.50
Oystergro (6 pk)	900-1200	\$160.00
bottom condo (8 pk)	1200-1600	\$130.00
bottom tray 3'x4' 2-stack	2000	\$72.00
Oystube longline basket	200	\$40.00

# Line materials

**Polypropylene** – floats, inexpensive  
NOT UV or abrasion resistant

**Poly-Dac** – sinks, inexpensive  
NOT UV or abrasion resistant

**Polyester** – more expensive, more UV and  
abrasion resistant

**Dyneema** – most expensive, high breaking  
strength and very abrasion resistant

# Line Cost breakdown

<b>Line type</b>	<b>size</b>	<b>approximate cost/ft</b>
Polypro	3/4"	\$0.34
Polypro	5/8"	\$0.31
Polypro	1/2"	\$0.15
Polypro	3/8"	\$0.09
Kevlar Guy wire	1/8"	\$1.05
Kevlar Guy wire	1/4"	\$1.98
Polyester double braid	3/8"	\$0.36
Polyester double braid	5/16"	\$0.43
Dyneema HMPE	1/4"	\$0.80

# Some East Coast Suppliers

Ketcham Supply

New Bedford, MA

508-997-4787

[www.lobstering.com](http://www.lobstering.com)

Brooks Trap Mill

Thomaston, ME

(800)-426-4526

[www.brookstrapmill.com](http://www.brookstrapmill.com)

Chesapeake Bay

Oyster Co.

Wake, VA

[www.bayoyster.com](http://www.bayoyster.com)

804-338-6530

Hooper Island

Oyster Aquaculture

Fishing Creek, MD

410-397-3664

[www.hioac.com](http://www.hioac.com)



# Aquaculture Demonstration Center

