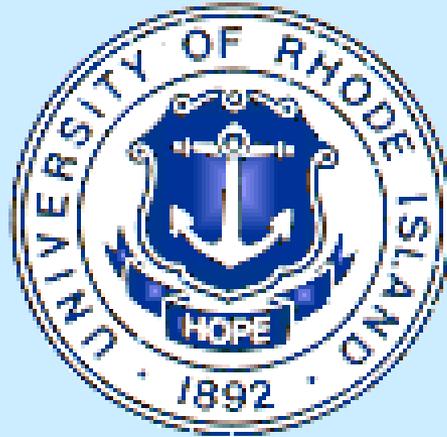


Pre-service Training: Appropriate Technology-Aquaculture 8 Jan 2011, The Gambia



Michael A. Rice
Department of Fisheries, Animal & Veterinary Science
University of Rhode Island

Summary

- Appropriate Technology
- Tropical oyster farming
- Site selection and water quality concerns
- Marketing, processing, public health
- Tilapia farming
- Other species?

Concept of Appropriate Technology

- Most modern & up-to date technology might not be right for the job
- Stereotype of ‘backwardness’
- Learn how the locals do things first...there may be very good reasons why they do it that way
- Building credibility



Skills match one's environment

- Know what you know & more importantly at least have a sense of what you *don't* know
- What is it that you need to learn?
- Local partnerships critical
- What is it that you can offer?



Mangrove oysters



Oyster Life Cycle

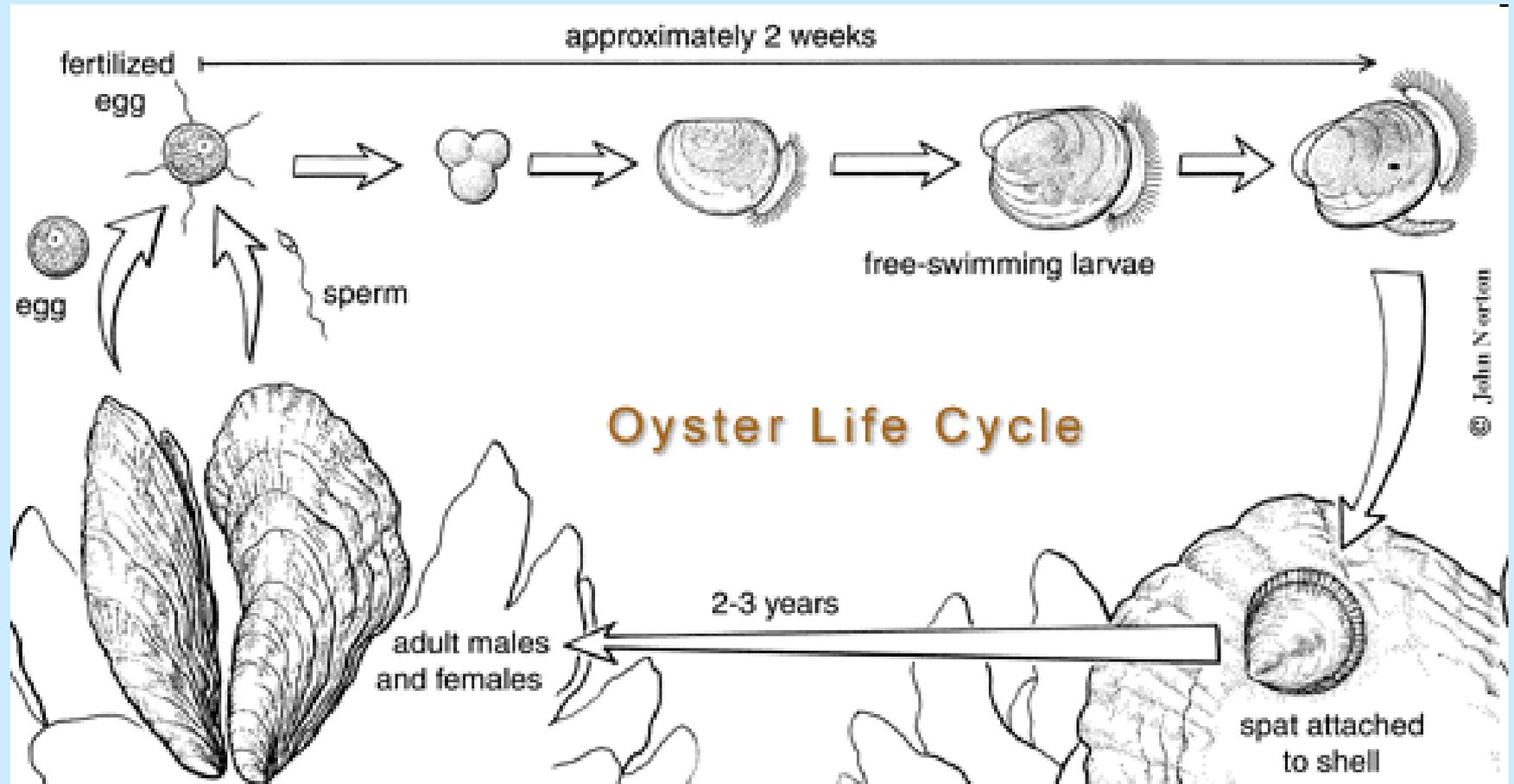
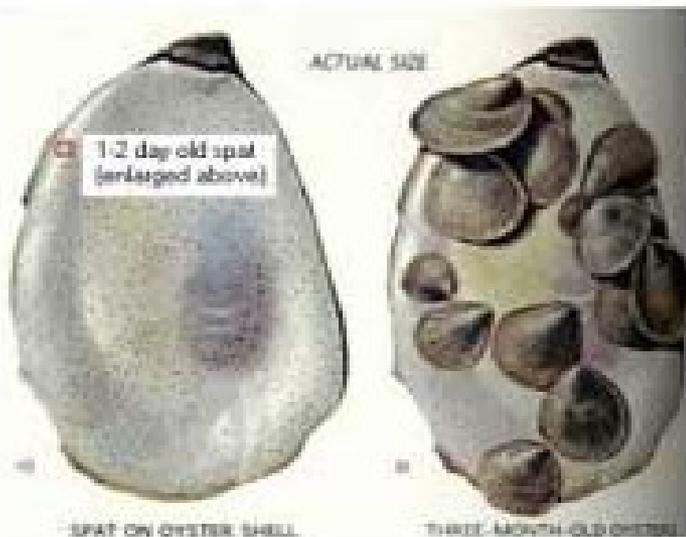
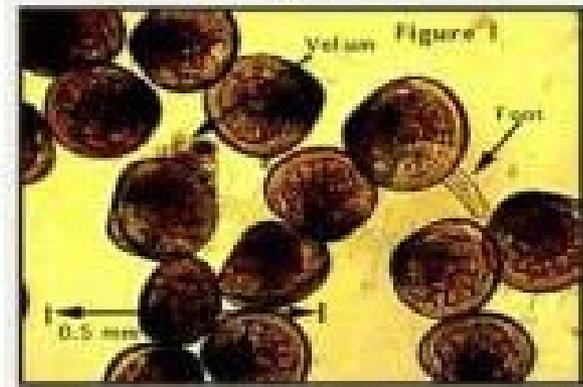
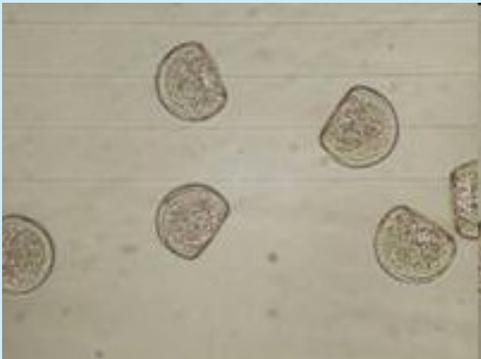


Diagram from Maryland Sea Grant



Oyster Life Cycle

Sampling for veligers



Test collectors

- Set in water for defined period of time
- Monitor appearance of spat and fouling
- Note peak period of spatfall
- Used to inform best time to put production collectors into water



Philippine spat collection



Philippine spat collectors



Banjul Area Wetlands



Dagupan City Estuary, Philippines



Philippine spat set



Culling for nursery culture



Nursery systems



Taylor Float System



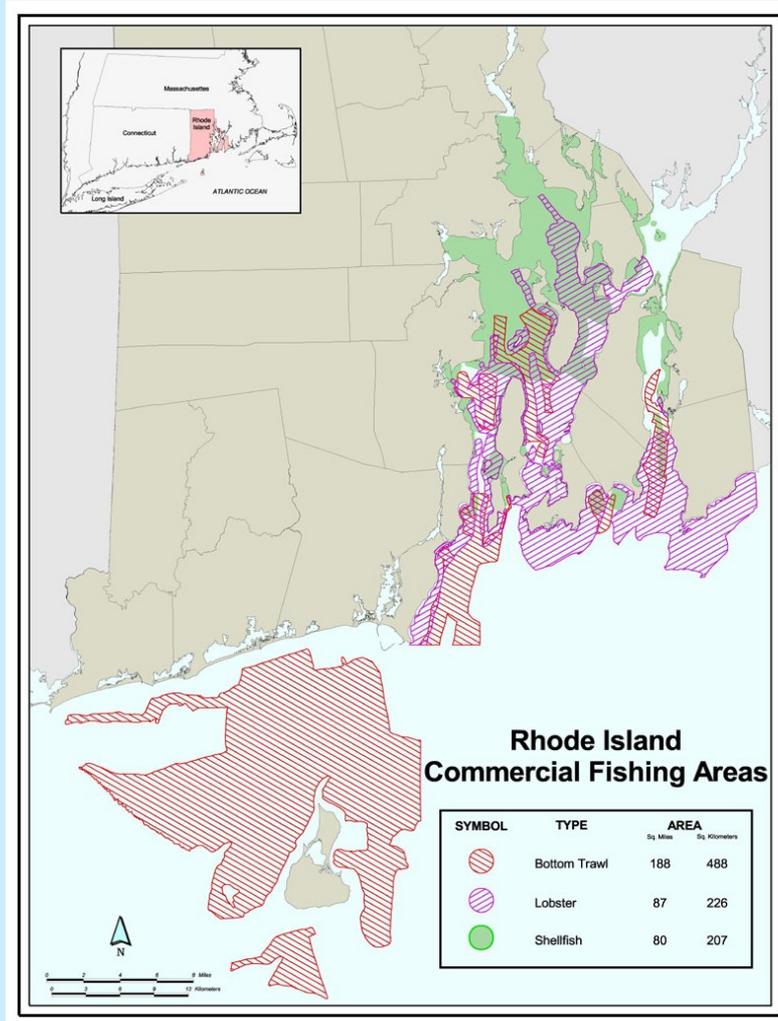
Pearl Nets -- nursery



Longlines



Commercial Fishing areas of RI



Estuary w/ Polyculture



GIS mapping of oyster lease sites in Virginia



Shellfishing closures



<http://www.dem.ri.gov/maps/mapfile/shellfsh.pdf>

Marketing



Hygiene of oyster meats

- Protocols established by EU & ISSC in US
- Minimization of bacterial propagation from farm to plate
- Temperature control is critical!
- HACCP concept = producers & marketers in develop a plan based upon controlling contamination at critical control points; gov't then approves, implements according to EU or ISSC standards & enforces

Marketing



Matunuck
• OYSTER BAR •

629 Succotash Road
• East Matunuck, RI •



Hours: Monday - Thursday: 11:30 am - 9 pm
Friday & Saturday: 11:30 am - 9:30 pm
Sunday: 11:30 am - 9 pm

629 Succotash Road • South Kingstown, RI • 401-785-4202

<http://www.rhodyoysters.com/>

Marketing

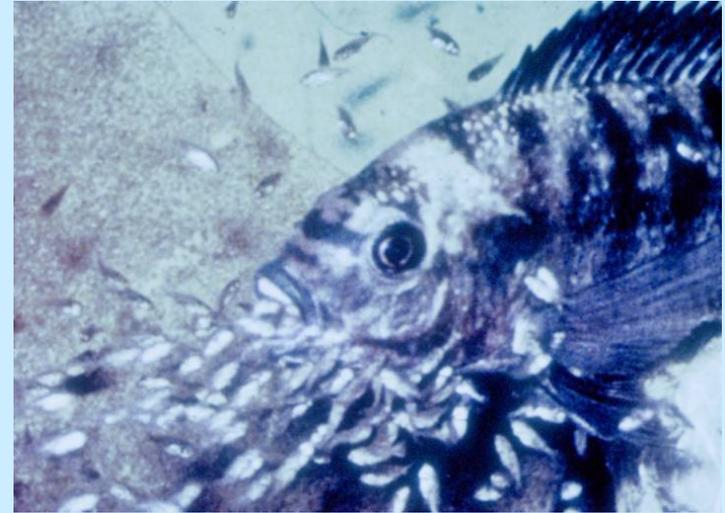


Freshwater aquaculture: Tilapia

- Tilapia native Africa
- Tilapia species diversity highest in Africa
- Adaptable to saline water
- Fisheries in rivers & Rift Valley Great Lakes
- Markets for tilapia exist
- History of African tilapia farming...but reduced in scope



Tilapia Farming



Tilapia Farming



Tilapia Farming in Asia



Thank You for Your Attention

