



The success of postlarval gag grouper as influenced by climate-induced variability in their prey and habitat

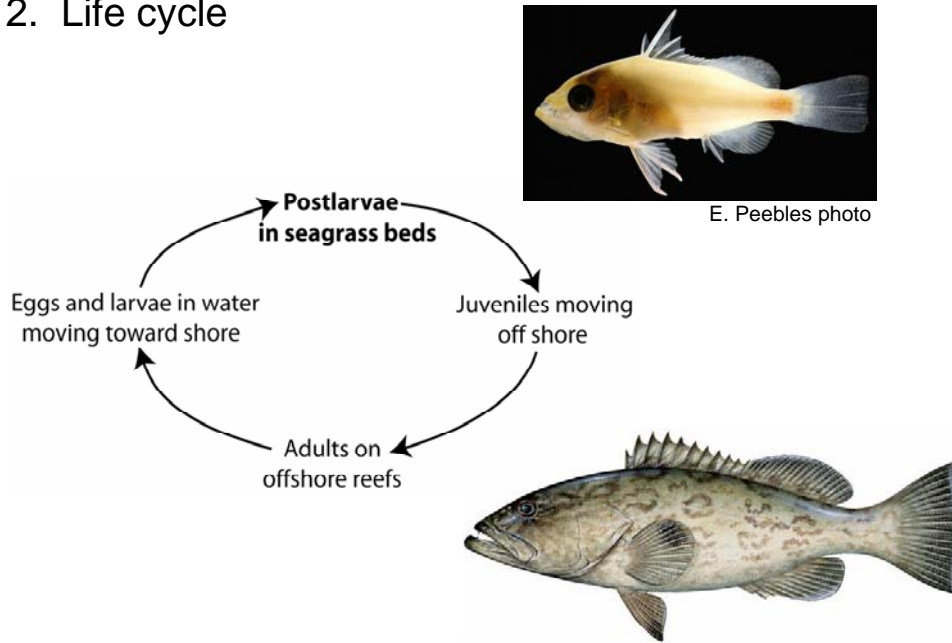


Erin Easton, David Thistle, Felicia Coleman, and Christopher Koenig

1. Context

- Gag are commercially important.
- Gag are threatened by over fishing.

2. Life cycle



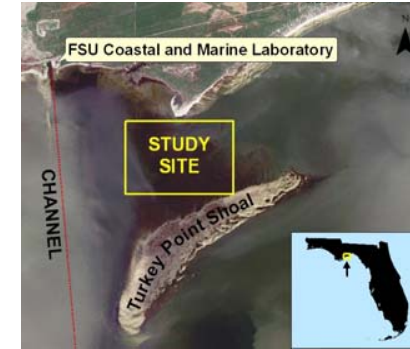
3. Issues

- Ecology of postlarvae is little known.
- Postlarval phase is potential bottleneck for year-class success.

4. Our questions

- What do postlarvae feed on as they age?
- Does temporal variability in prey affect prey selection by postlarvae?
- Does temporal variability in prey affect postlarval survival?
- Does temporal variability in the environment predict differences in prey abundance or in postlarval survival?

5. Study site

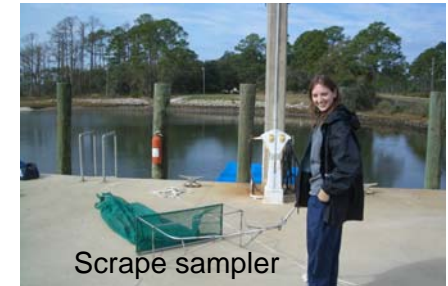


6. Approach

- Continuous measurement of temperature, salinity, oxygen, and light at the seabed.
- Beginning 1 Apr 2007, weekly or biweekly samples for postlarval abundance, structure of the seagrass habitat, prey abundance, postlarval gut contents.

7. Tools

- Scrape for youngest postlarvae
- Otter trawl for older postlarvae
- Sampler for prey and seagrass



8. Larger contexts

- The FSU NGI effort in meteorology and physical oceanography will provide the climate context for our results.
- The FSU NGI effort to measure primary production and carbon flux in the area will allow us to study effects of temporal variability of these variables on postlarval gag.
- We are partnered with NOAA Fisheries Panama City Laboratory. We will study postlarval gag in their region, while they concentrate on the off-shore life stages.