

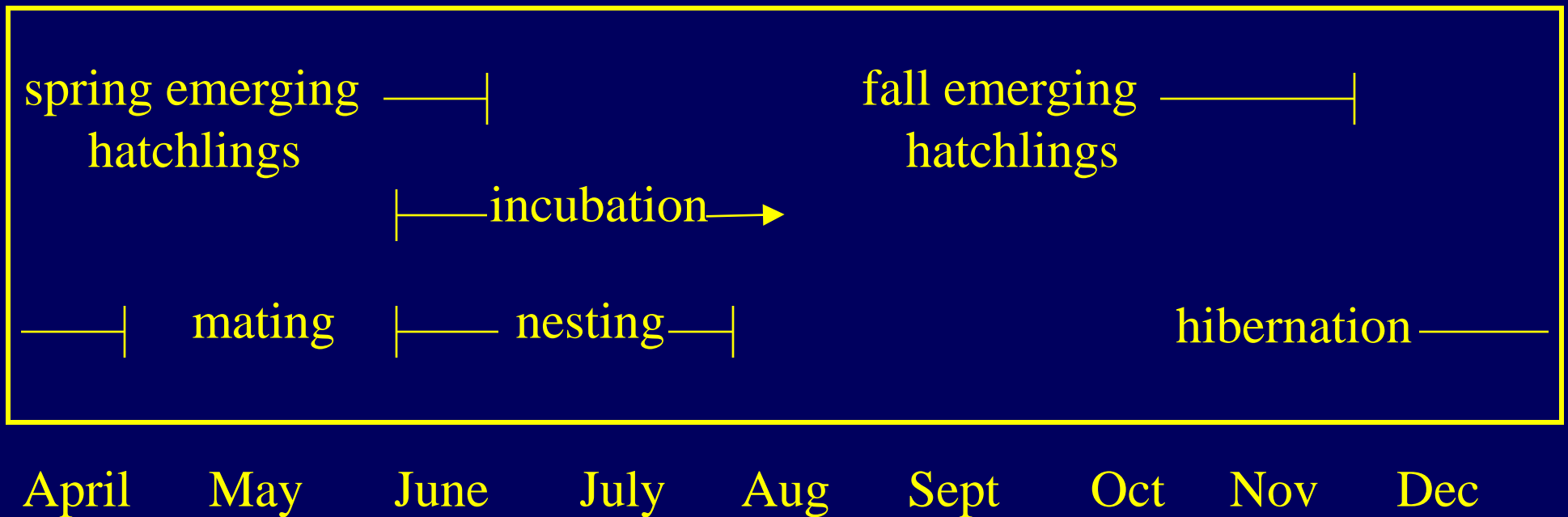
Offshore Energy Development and diamondback terrapins



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Annual Cycle

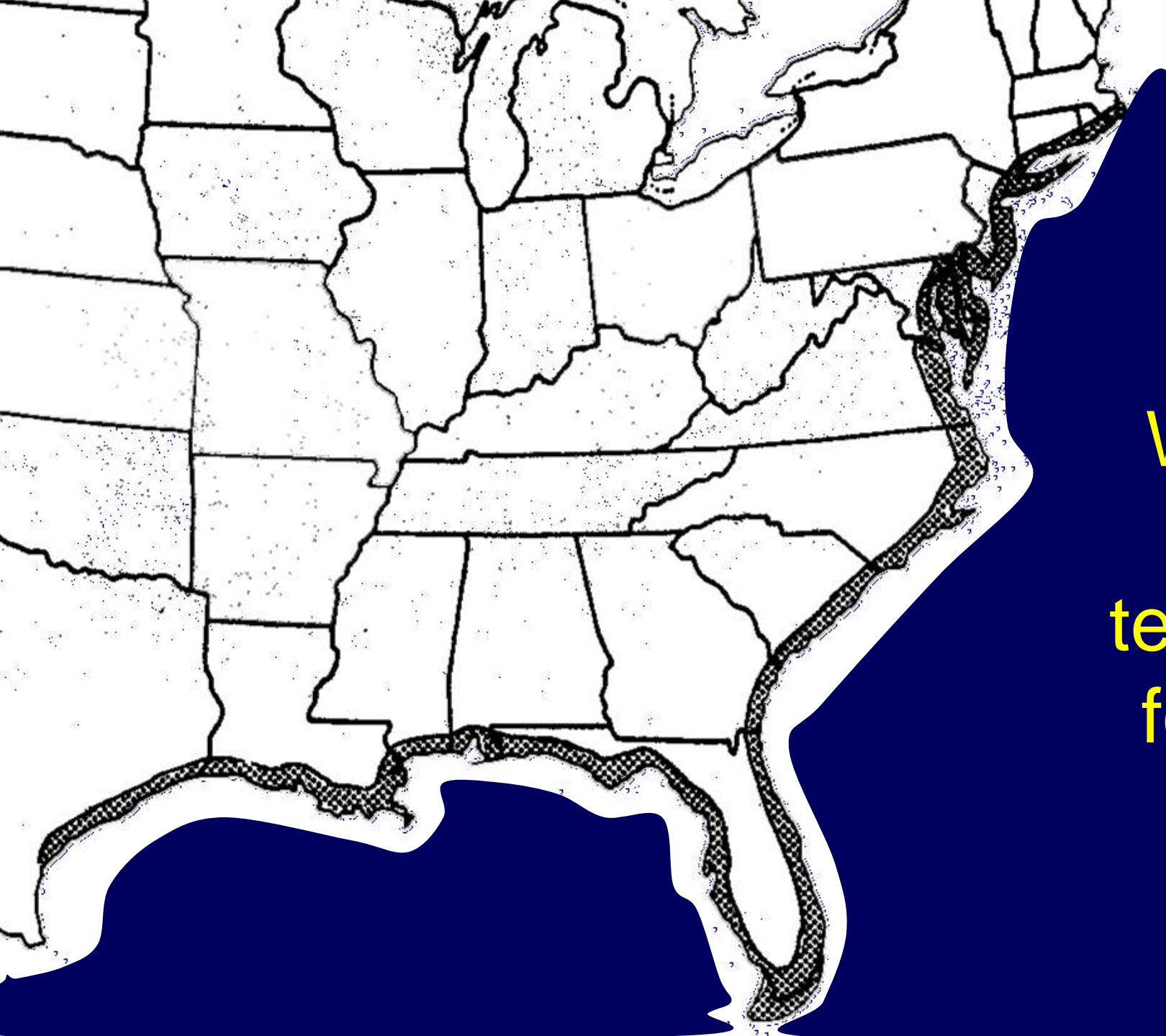


Diamondback Terrapins

the Basics

- Females mature at about 7-8
- Males mature at about 4
- Longevity unknown
 - mortality
 - maximum





Where
are
terrapins
found?

Where are terrapins found?

- Estuarine habitats (freshwater meets saltwater)
 - Coastal marshes
 - Bays, estuaries, coves

- *Spartina* marshes: key habitat requirement
 - Foraging/feeding
 - Hibernation
 - Hatchling development
 - Basking





Long history of use as food

- Gourmet food item through 1920's
- Nearly extinct by 1930s - "turtle soup"
- Now protected by New York state law
 - possession out of season illegal
 - must have state license to catch or possess
 - cannot possess or sell turtles less than four inches or greater than seven inches carapace length
- Small but growing illegal market

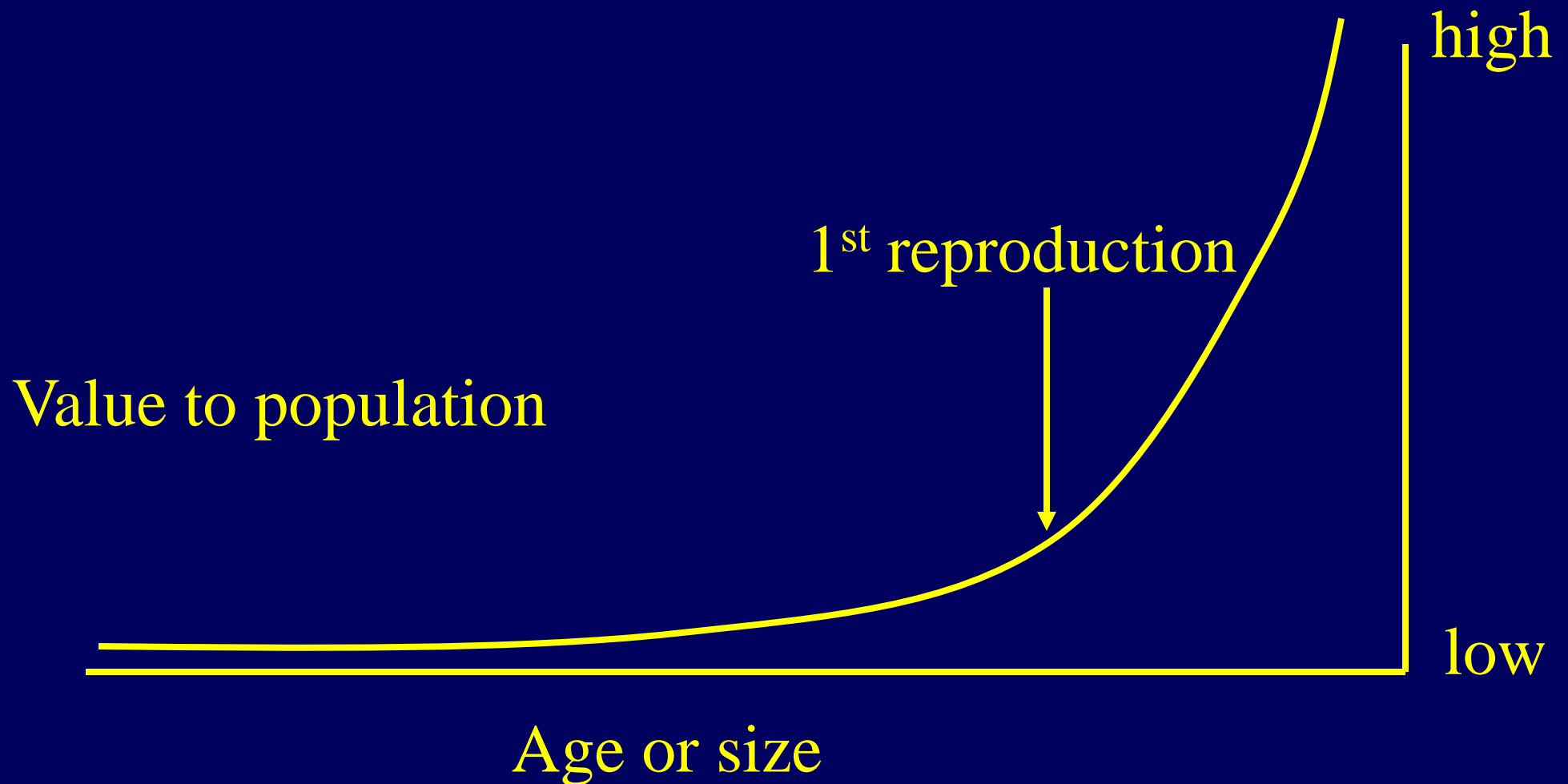
Current threats

- Habitat destruction
 - *Spartina* marsh loss
 - Nesting habitat loss
- Boat damage
- Crab traps
- Nest predators
- Food market



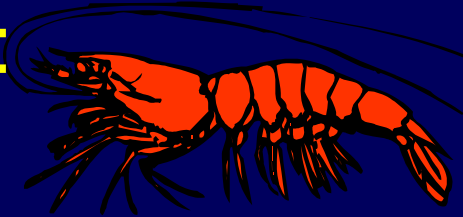
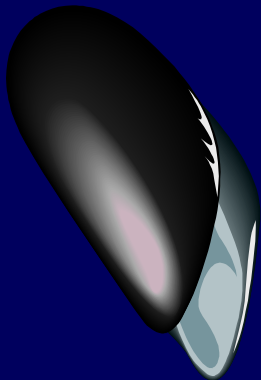


Population sensitivity analysis

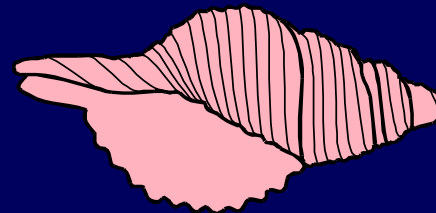


What do Terrapins Eat?

South Carolina only:



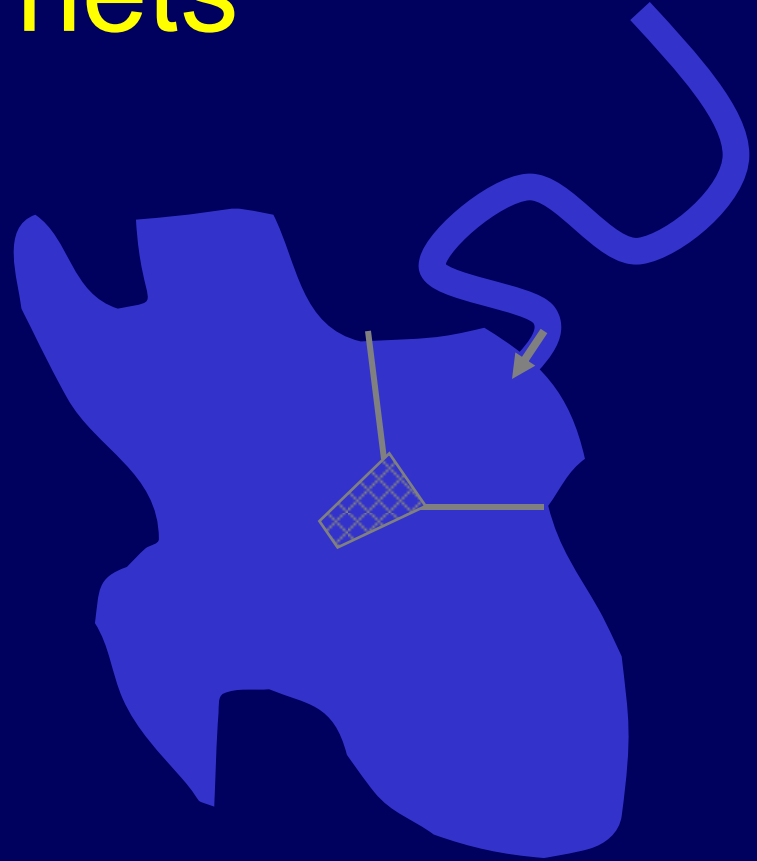
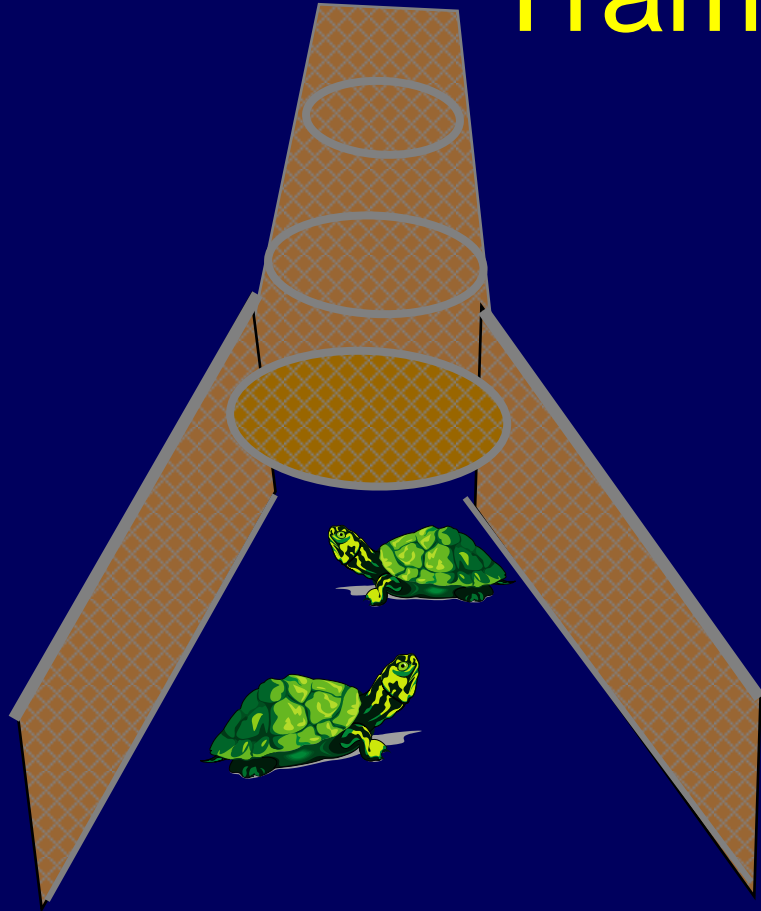
- Crustaceans
 - Crabs
 - Shrimp
- Mollusks
 - Snails
 - Clams
 - Mussels



Measuring impacts requires
population estimates



Trammel nets



Detecting Trends

Hard to trap in large numbers
+
Hard to measure over large areas = few reliable estimates

Major threats from offshore development

- Impact on movements between marshes
- Impacts on marshes themselves
- Increases in pollution

Safety of movements between marshes



Damage to marshes themselves



Increases in water pollutants

- Organochlorines: PCB's, DDT, DDE, dieldrin
- Metals: mercury, cadmium, lead
- Petroleum products

Potential effects almost entirely unknown

Bottom line—we don't know much

