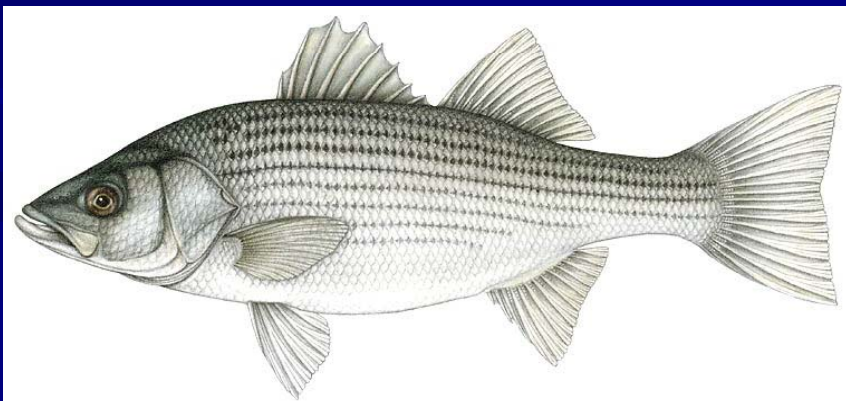
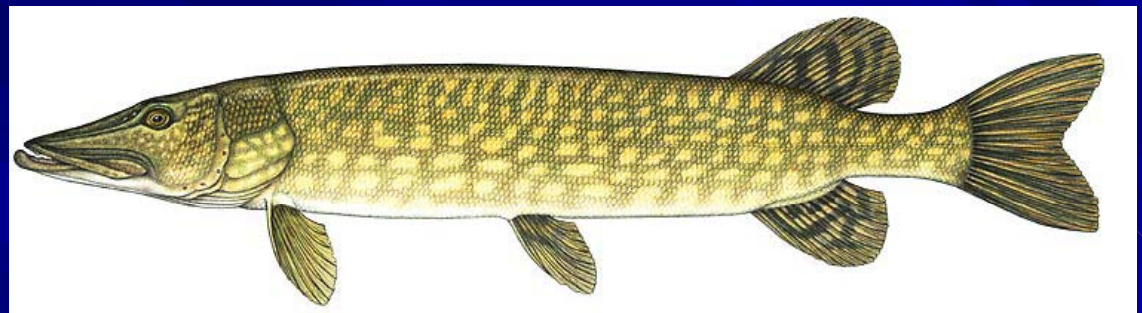
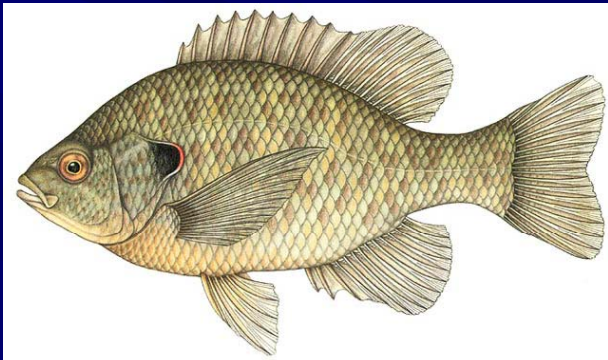


# Ecomorphology

Relationships between morphology  
and life history



# Ecomorphology

- Studying morphology and how it relates to ecology
- Insight into *Niche partitioning*

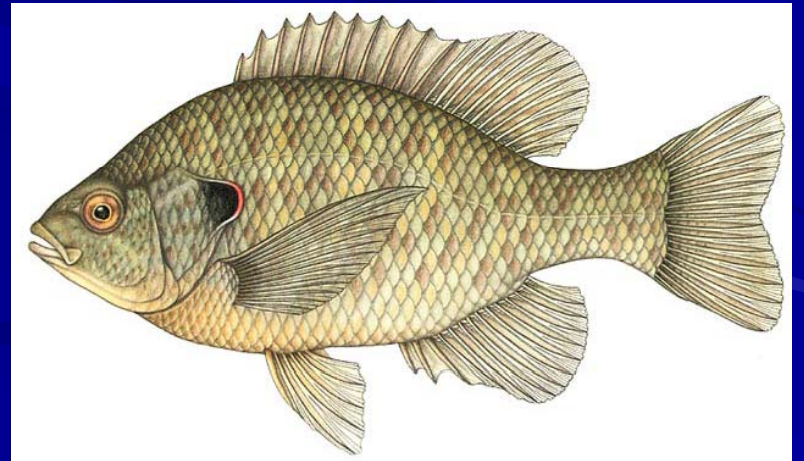
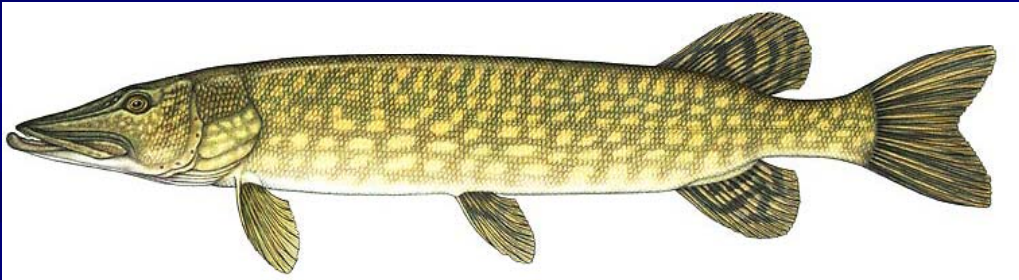
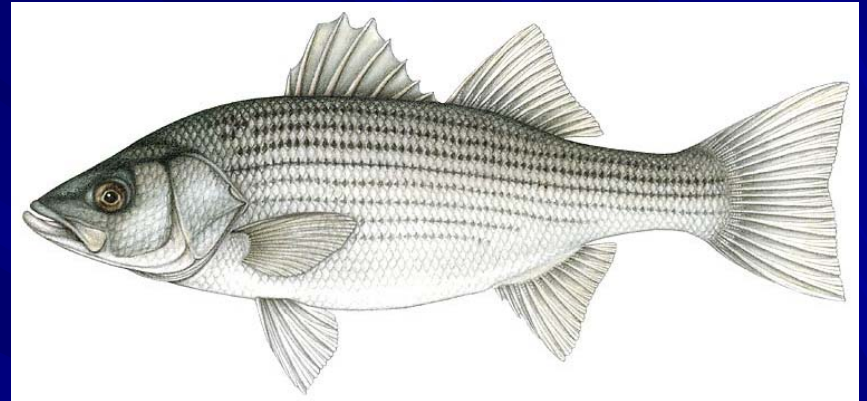
# Ecomorphology

- Swimming ability & habitat
- Trophic ecomorphology
- Anti-predation anatomy

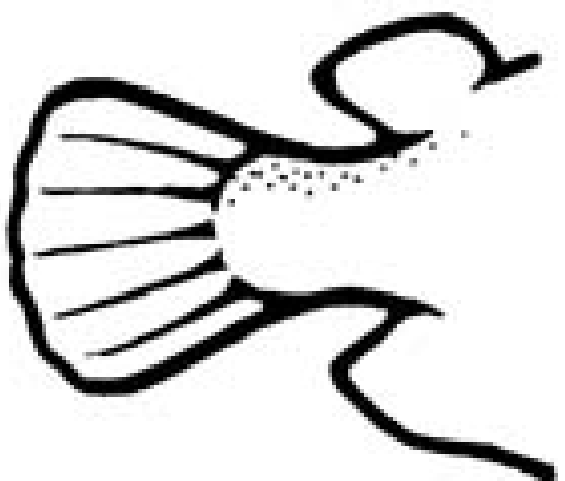
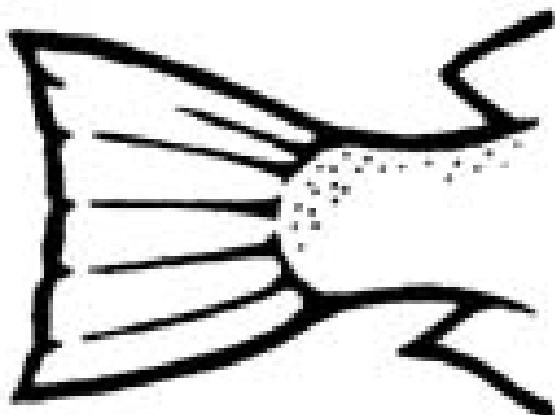
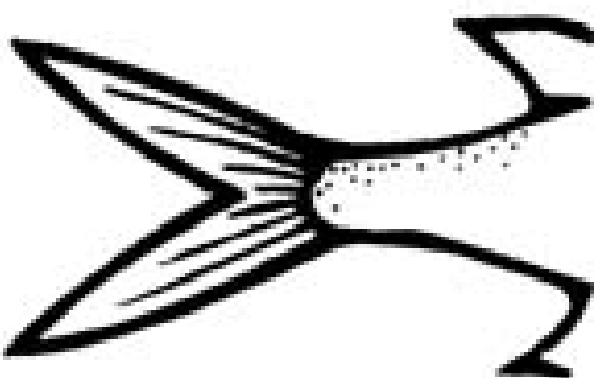
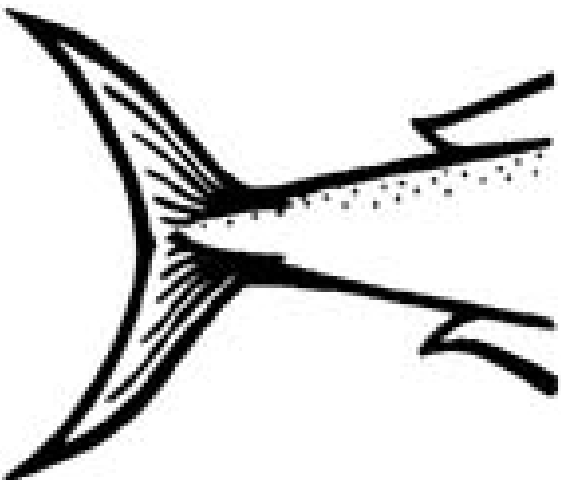
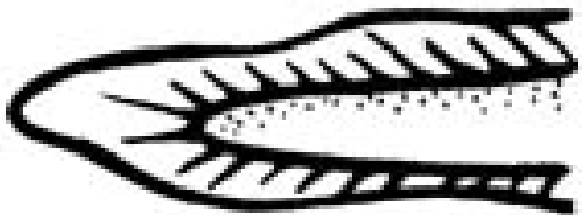
# Swimming ability

- Body shape
- Dorsal/anal Fin placement and length
- Caudal fin
- Keeled body

# Swimming ability







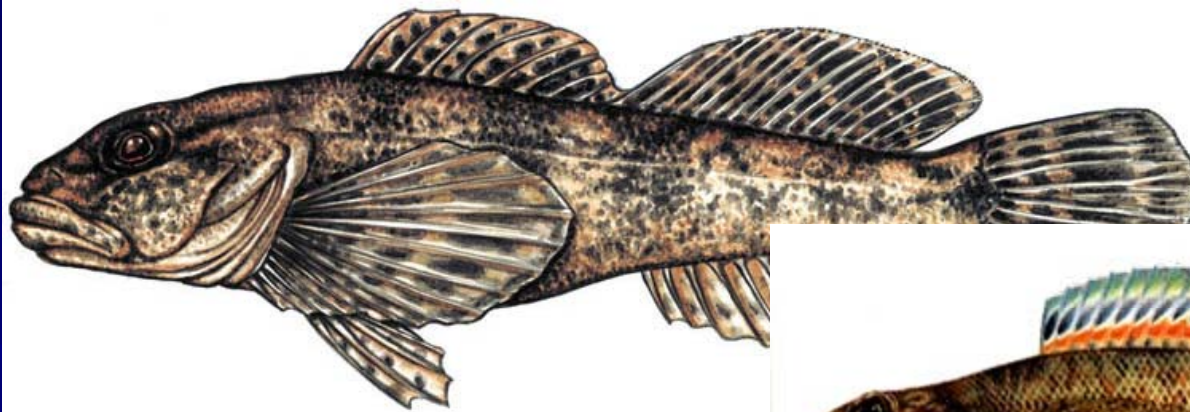
# Habitat preference

- Where in the water column a fish lives
  - Benthic
  - Mid-water
  - Top-water
- What type of general habitat
  - Lentic – Low current, lakes & ponds
  - Lotic – Moving water, streams & rivers

# Benthic Fishes

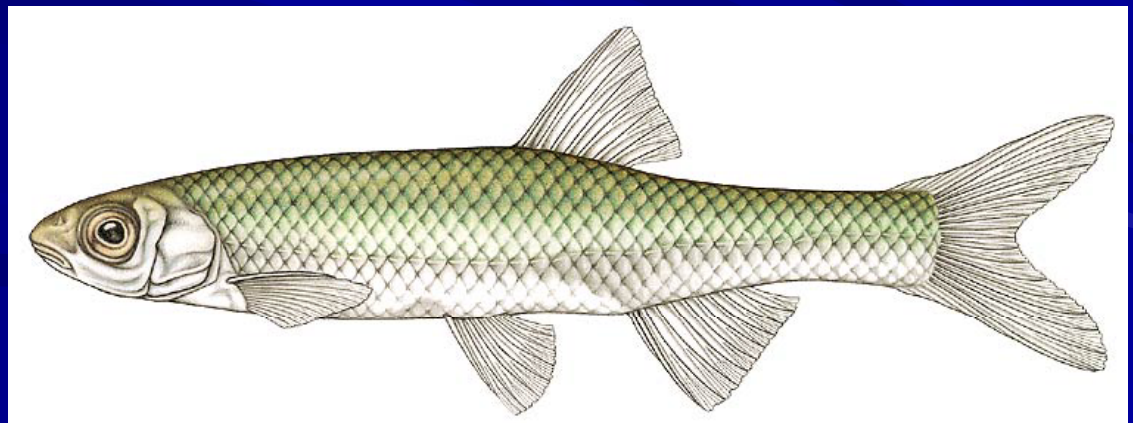
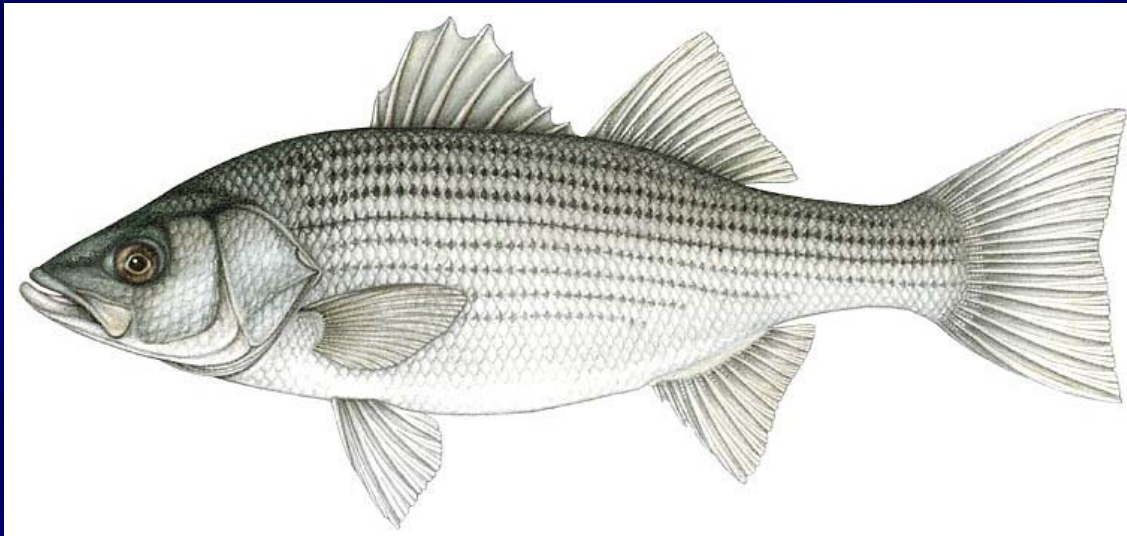


# Benthic fishes



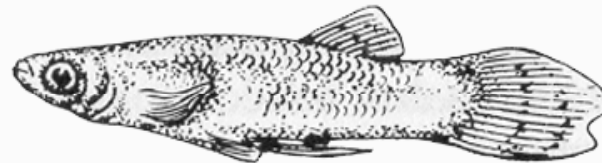
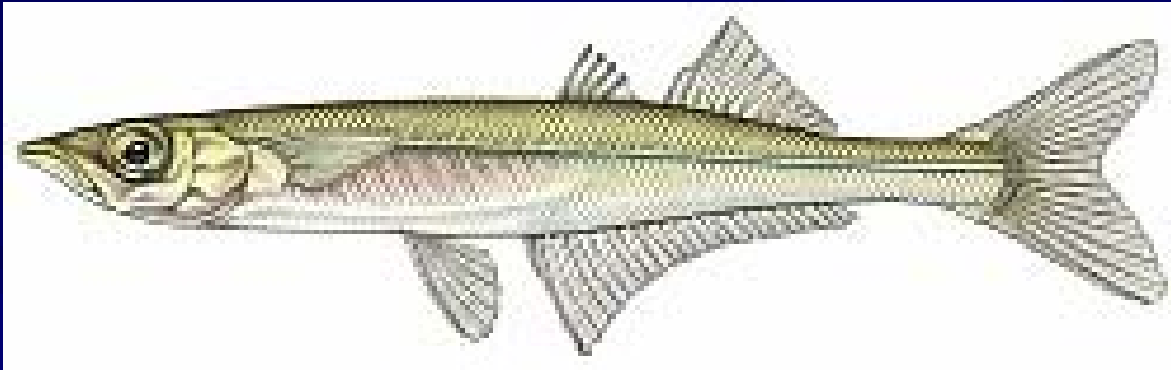
# Mid-water fishes

# Mid-water fishes

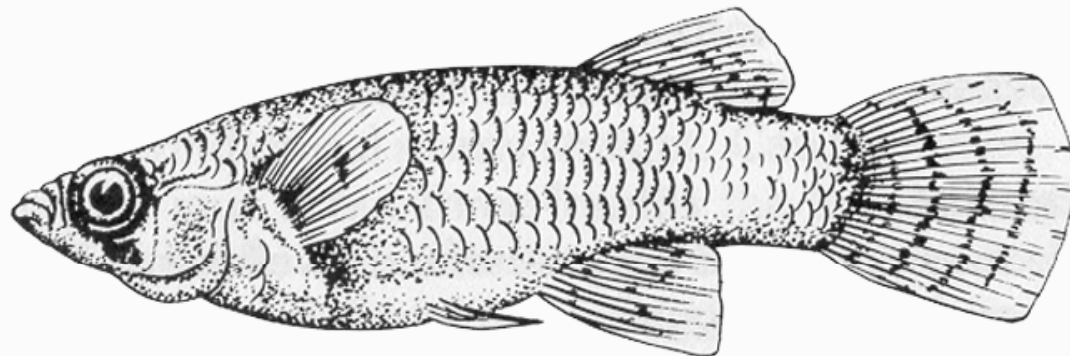


# Top-water fishes

# Top-water fishes



Mosquito Fish- *Gambusia affinis*  
averages 1 - 2 inches  
(male smaller than female)

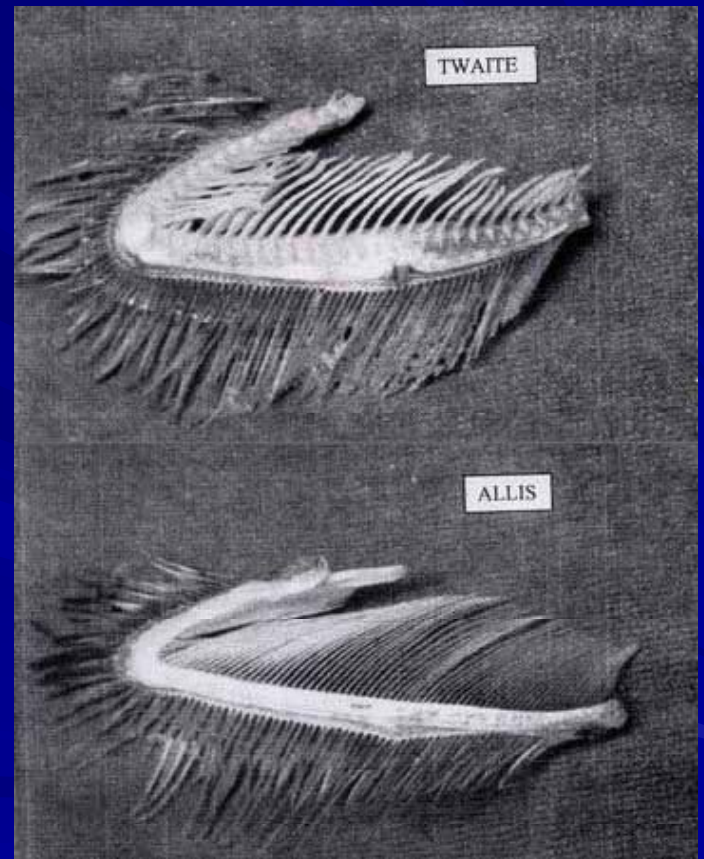


# Trophic ecomorphology

- Gill rakers
- Mouth
- Pharyngeal teeth
- Swimming ability



# Gill Rakers





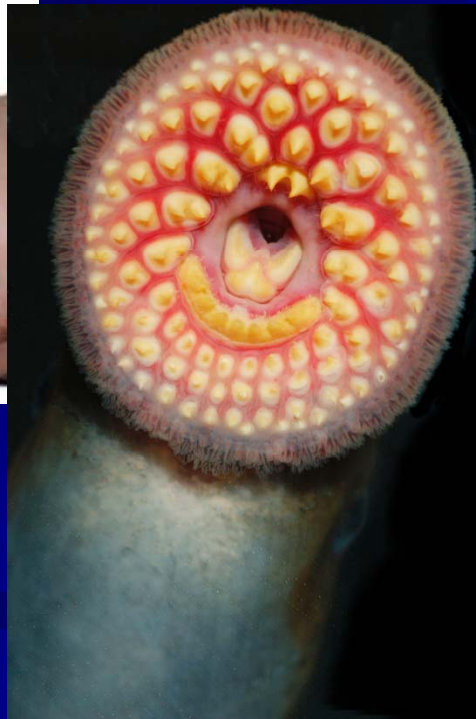
# Mouth size

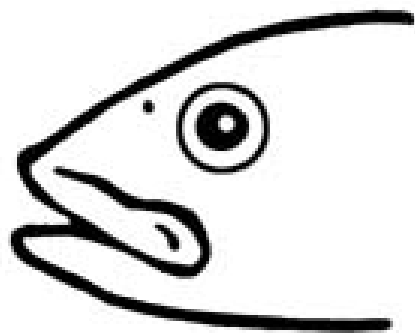
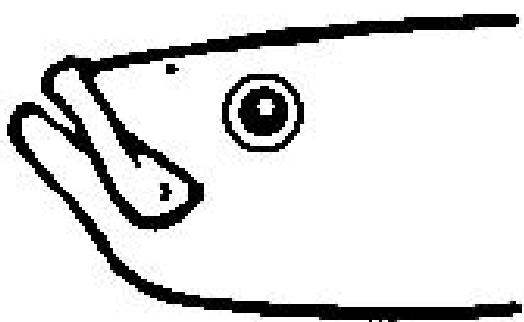
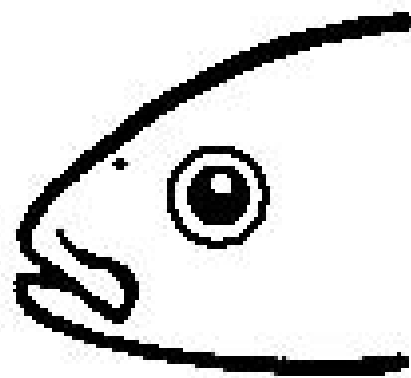
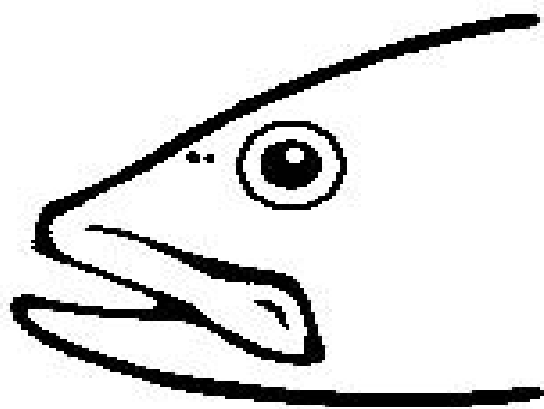


Photo by Jeremy Stafford-Deitsch©



# Mouth structure





# Anti-predation morphology



# Anti-predation morphology

