

Ichthyology

ECOL 482/582

Fish Envy - Is It Wrong?



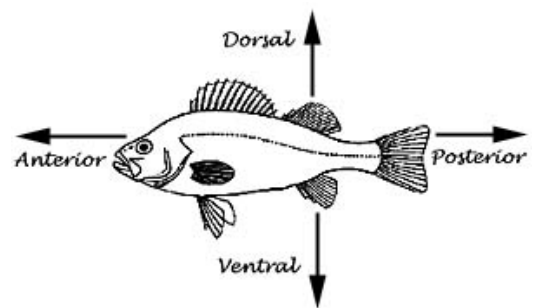
Hard Anatomy - more in lab



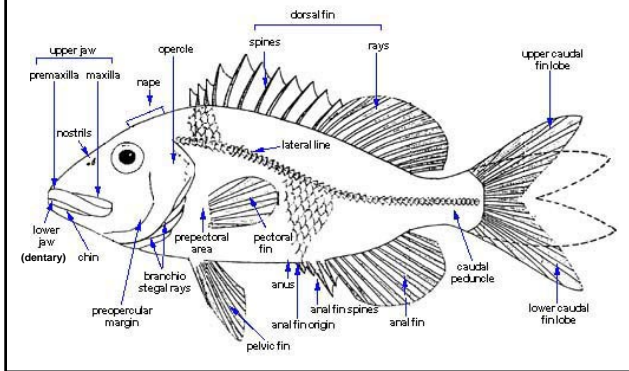
Anatomy

- External vs. Internal
- Hard Anatomy
- Soft Anatomy

External Anatomy



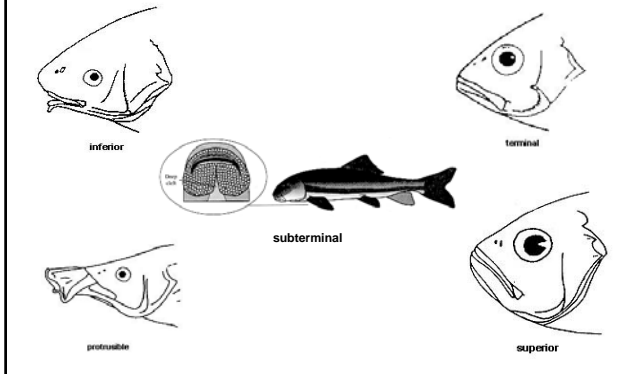
External Anatomy



Fish Mouth Positions



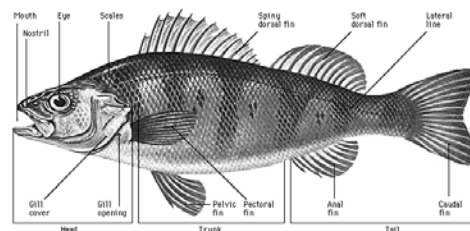
Fish Mouth Positions



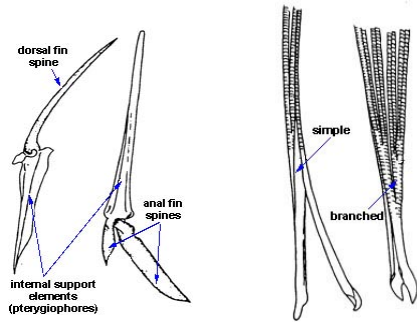
Fins - External Anatomy

Medial Fins - Dorsal Fin, Caudal Fin, Anal Fin, Adipose

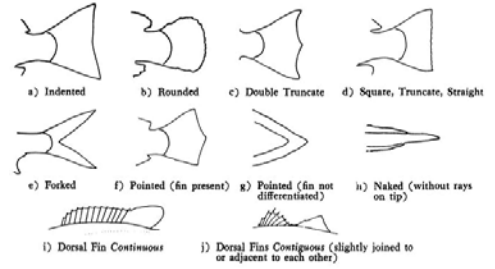
Lateral fins (paired) - Pelvic Fins, Pectoral Fins



Internal Anatomy - Fins Fin Spines and Rays



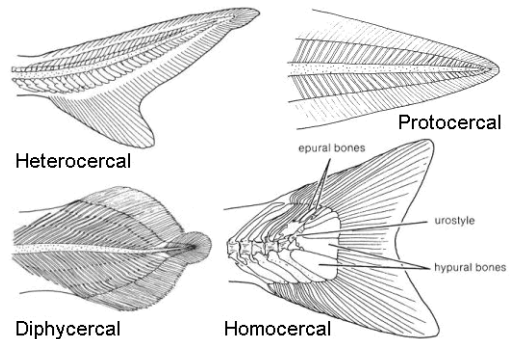
External Anatomy Caudal and Dorsal Fins



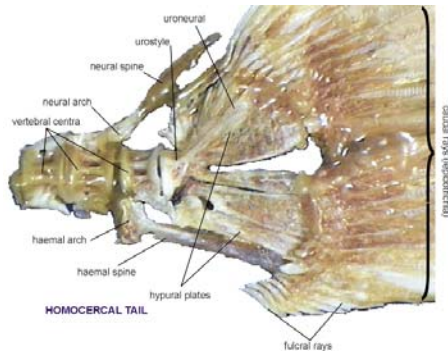
Modified Spines



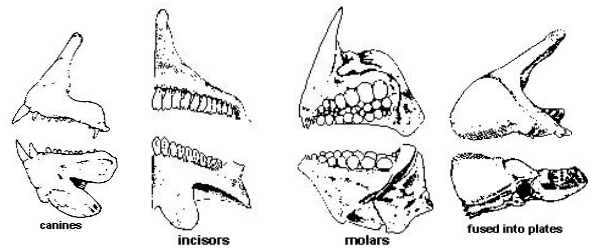
External Anatomy Caudal Fins



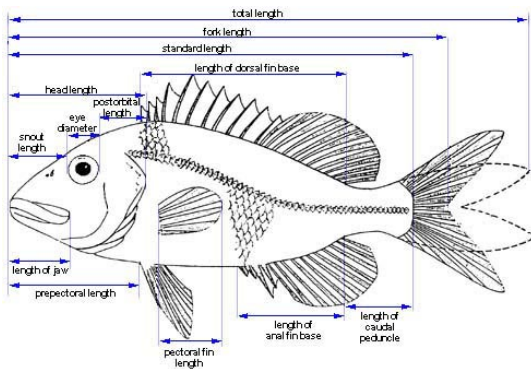
Caudal Fin – Homocercal Tail



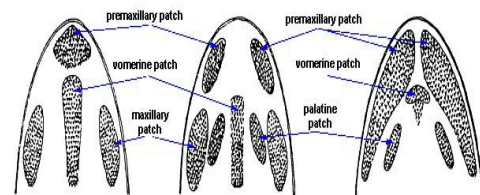
Fish Teeth



External Measurements



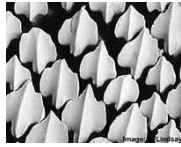
Fish Teeth



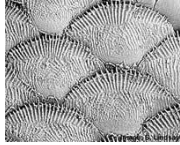
Scales – Placoid, Cosmoid, Ganoid, Cycloid, Ctenoid



cosmoid



placoid



ctenoid

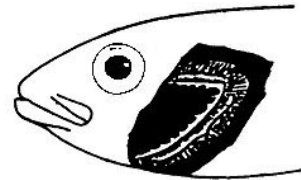


ganoid

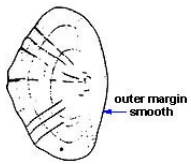


cycloid

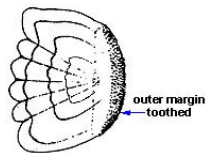
Internal Anatomy
Gill Arch – Cover Removed



External Anatomy
Scales



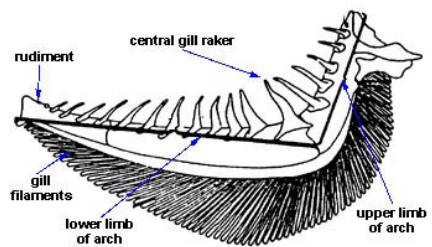
outer margin smooth



outer margin toothed

•Aging scales – Circuli and Annulus

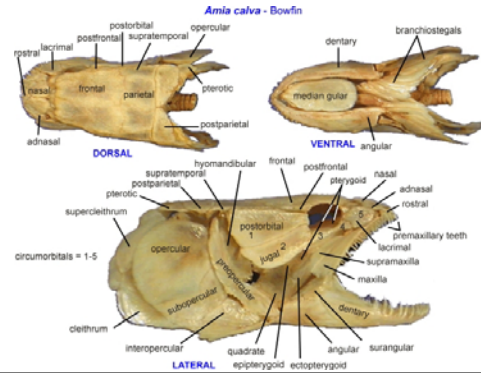
Internal Anatomy
Gill Arches



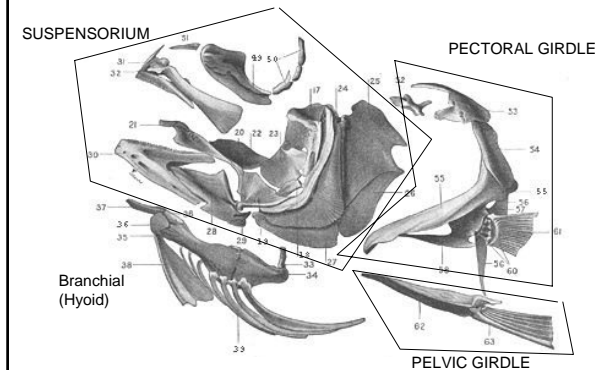
The head skeleton of a fish = three components, the **neurocranium** (braincase), **suspensorium** (jaws plus whatever other structures suspend them from neurocranium), and **branchial skeleton** (holds the gills).



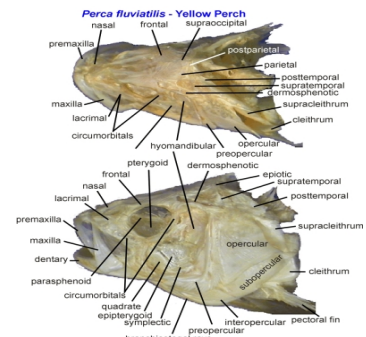
Internal Anatomy – Head *Amia calva*



Internal Anatomy Head – No neurocranium



Internal Anatomy – Head *Perca fluviatilis*



Other Characters

- Lateral Line System
- complete v incomplete

