KEY TO OHIO FISH FAMILIES

Note: This key is adapted from Trautman's (1981) *The Fishes of Ohio* and is intended for use during aquatic environmental education workshops offered by The Ohio State University's Stone Laboratory.

1
- No pectoral or pelvic fins.
  LAMPREY FAMILY Petromyzontidae

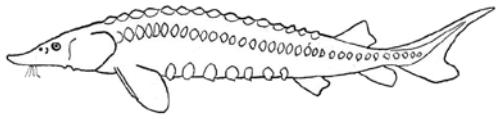
- Has pectoral fins and usually pelvic fins.
  (Class Osteichthyes, subclass Teleostomi) 2

2
- Has heterocercal caudal fin, vertebrae extends to upper lobe of caudal 3
- Has homocercal caudal fin, vertebrae end at base of caudal 6

3
- Caudal fin forked 4
- Caudal fin rounded 5

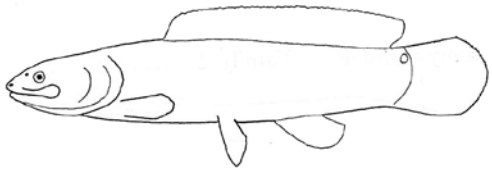
4
- Has long paddle-like snout.
  PADDLEFISH FAMILY Polyodontidae

- Has short, rounded or shovel-shaped snout.
  STURGEON FAMILY Acipenseridae

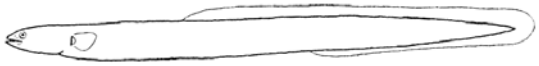


5
- Has long, narrow, beak-like snout.
  GAR FAMILY Lepisosteidae

- Has short, rounded snout and a gular plate (bony plate under chin).
  BOWFIN FAMILY Amiidae



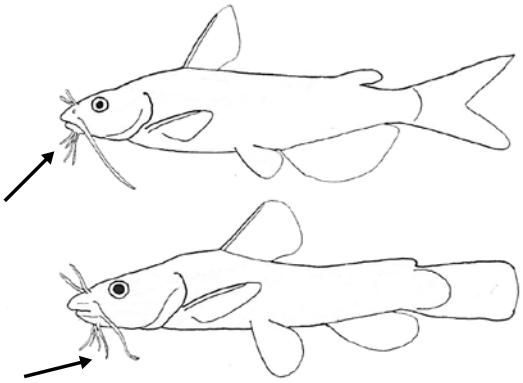
6
- No pelvic fins, dorsal-caudal-anal fins continuous
  EEL FAMILY Anguillidae



- Has pelvic fins and distinct dorsal, caudal and anal fins 7

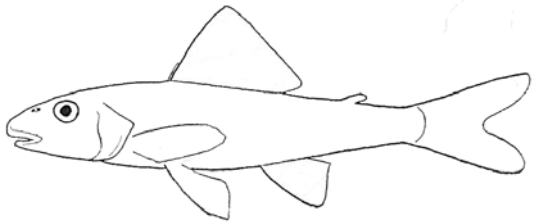
7
- Has an adipose fin 8
- No adipose fin 11

8
- Has 8 or at least 4 barbels near mouth. Dorsal and pectoral fins each with a large spine. No scales.
  CATFISH FAMILY Ictaluridae



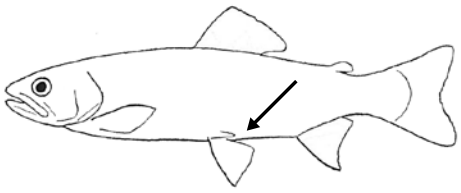
- No barbels near mouth. Has scales 9

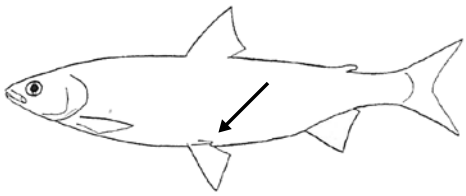
9
- Has ctenoid scales (body stroked backwards feels rough)
  TROUT-PERCH FAMILY Percopsidae



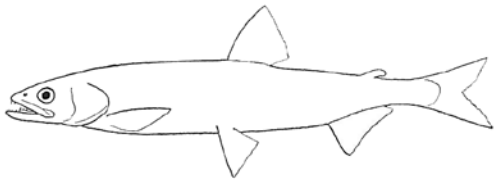
- Has cycloid scales. No spines 10

10
- Has pelvic axillary process.
  SALMON AND WHITEFISH FAMILY Salmonidae

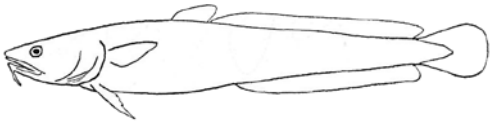




- No pelvic axillary process.
  SMELT FAMILY Osmeridae



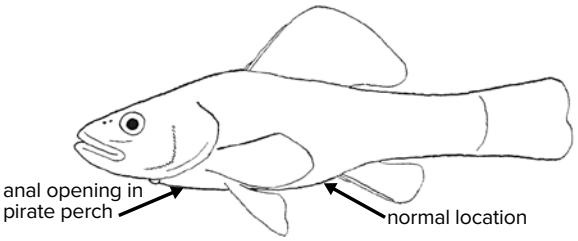
11
- Has 1 barbel near tip of chin.
  FRESHWATER COD FAMILY Gadidae



- No barbel near tip of chin 12

12

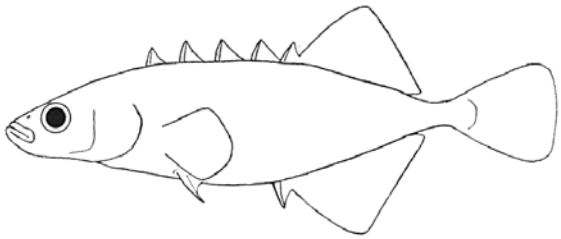
Anal opening in front of pelvic fin.
PIRATE PERCH FAMILY Aphredoderidae



Anal opening in normal location 13

13

Has 4-6 dorsal spines not connected by membrane.
STICKELBACK FAMILY Gasterosteidae



Has dorsal fin without spines or dorsal fin with spines connected by membrane 14

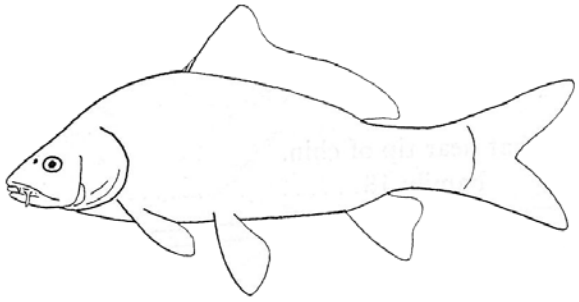
14

Has dorsal fin without spines or dorsal fin with only 1 stout spine. No pelvic spines 15

Has 2 separated dorsal fins or dorsal fin with more than 1 spine 23

15

Has dorsal fin with 1 stout spine.
CARP or **GOLDFISH** Cyprinidae (in part)



Has dorsal fin without spines 16

16

No scales on head 17

Has some scales on head and cheeks 20

17

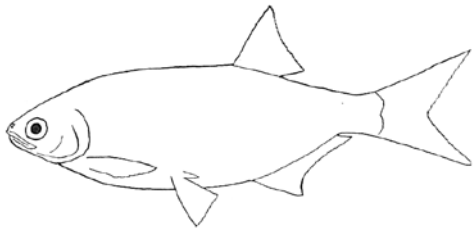
Has pelvic axillary process 18

No pelvic axillary process 19

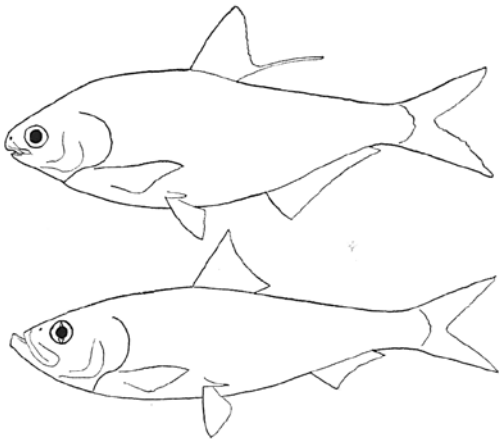
18

Has lateral line and sharp teeth on tongue.

MOONEYE FAMILY Hiodontidae



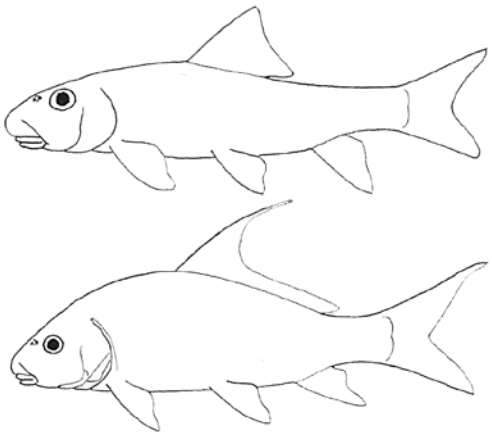
HERRING FAMILY Clupeidae



19

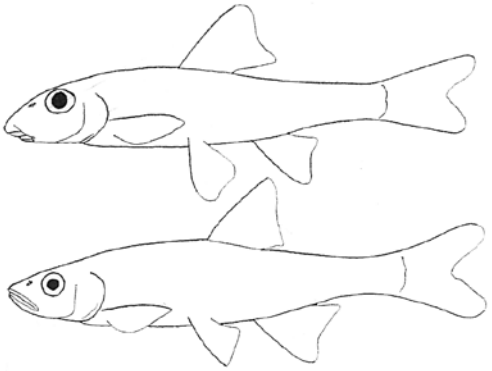
Has 10 or more dorsal rays and sucker-like mouth (a few exceptions have 9 rays). Anal fin nearly reaches caudal fin when folded.

SUCKER FAMILY Catostomidae



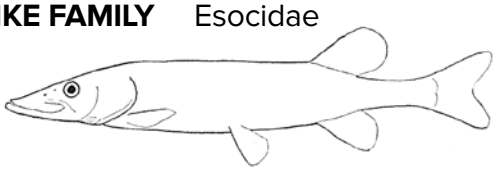
Has 8 dorsal rays (or 9 in one exception). Anal fin cannot reach caudal fin when folded.

MINNOW FAMILY Cyprinidae (in part)



20

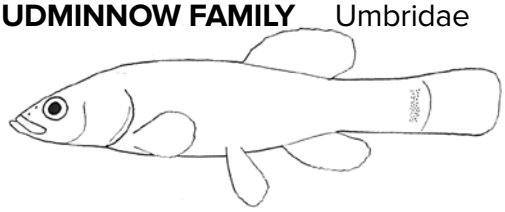
Caudal fin deeply forked. Duck-like snout and large canine teeth.
PIKE FAMILY Esocidae



Caudal fin rounded. Velcro-like teeth 21

21

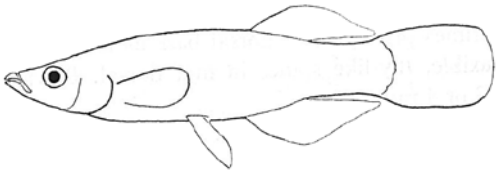
Pre-maxillaries not protractile. Origin of pelvic fins closer to base of caudal fin than to tip of nose.
MUDMINNOW FAMILY Umbridae



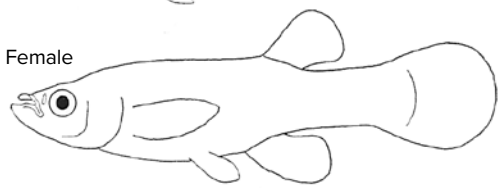
Pre-maxillaries protractile. Origin of pelvic fins midway or closer to tip of nose than to base of caudal fin 22

22

Third anal ray branched. Male and female anal fins alike. Female lays eggs.
TOPMINNOW AND KILLIFISH FAMILY Fundulidae



Third anal ray unbranched. Male anal fin unlike female's.
LIVEBEARER FAMILY Poeciliidae



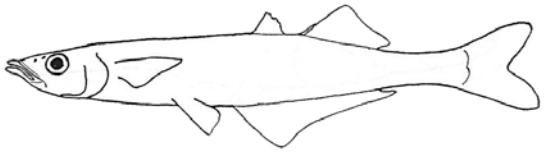
23

Body has cycloid scales (body stroked backwards feels smooth) or is scaleless.
Dorsal fins separated; frail spines in first dorsal 24

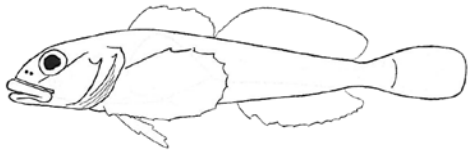
Body has ctenoid scales (body stroked backwards feels rough).
Dorsal fins separated or conjoined with stiff, sharp spines 25

24

Body has cycloid scales.
SILVERSIDE FAMILY Atherinidae



Body is scaleless or with a few small, spiny prickles.
SCULPINS Cottidae



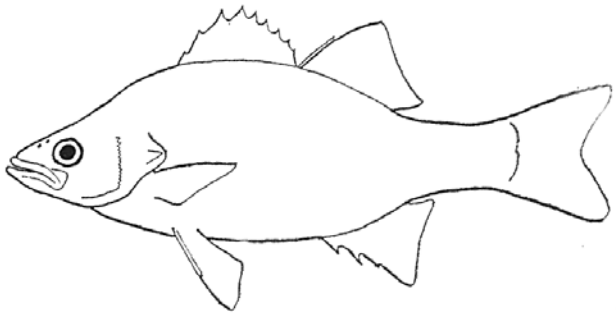
25

Has 3 or more anal spines; stiff and sharp 26

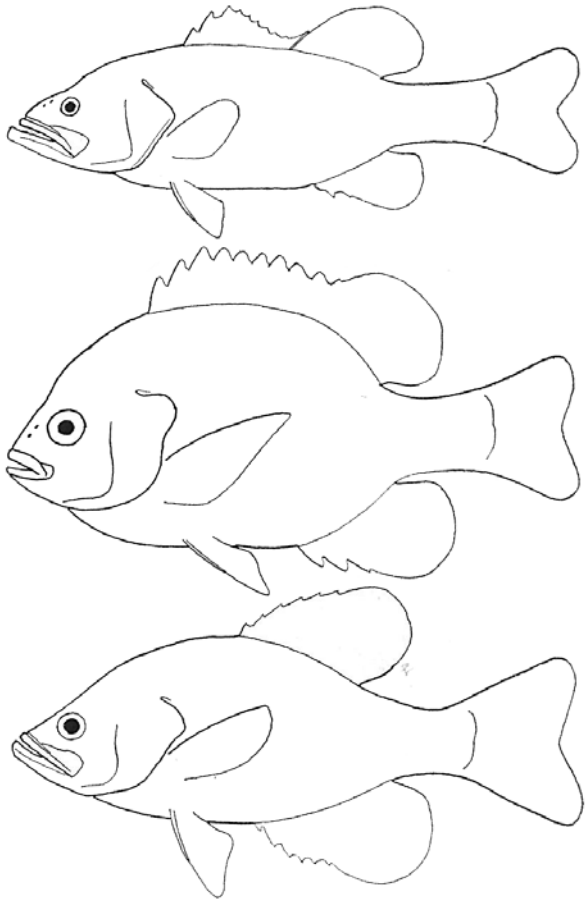
Has 1-2 anal spines; sometimes weak and flexible 27

26

Has dorsal fins completely separated or just slightly conjoined at base. Opercle flap with spine.
SEA BASS FAMILY Moronidae



Has dorsal fins completely conjoined; speparated at most by deep notch. Opercle flap lacks spine.
SUNFISH FAMILY (including Blackbasses) Centrarchidae



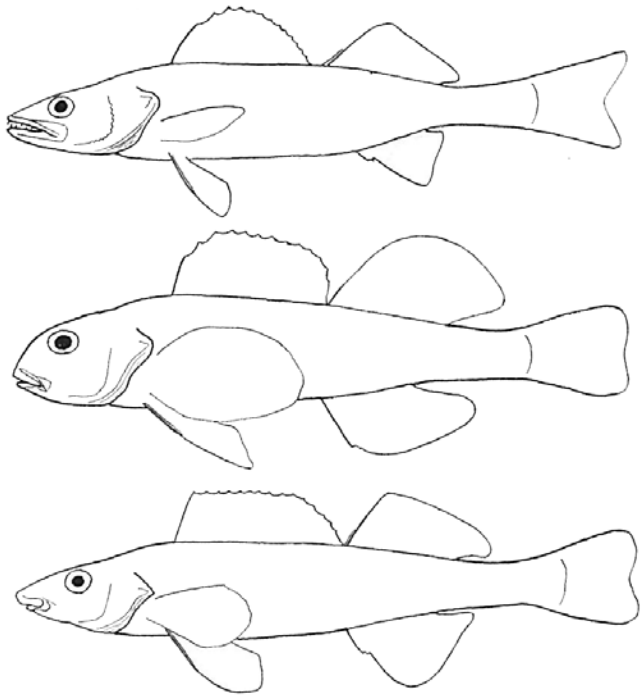
27

Fused pelvic fins.
GOBY FAMILY Gobiidae

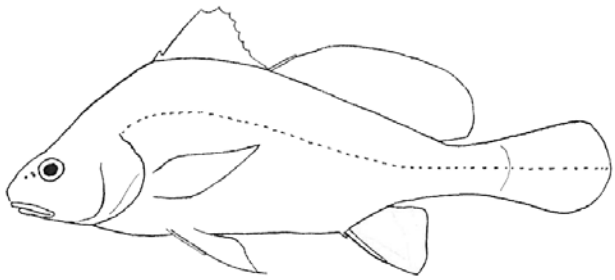
Separate pelvic fins 28

28

Lateral line ends before caudal fin. Torpedo-shaped body; body depth less than head length (except in gravid females). Anal spines weak.
PERCH FAMILY Percidae



Lateral line extends onto caudal fin. Slab-sided body; body depth much greater than head length. Second anal spine extreamly long and heavy.
DRUM FAMILY Sciaenidae



References: Trautman, M. B. 1981. *The Fishes of Ohio*. Ohio State University Press, Columbus
Fishes of the Great Lakes Region, Revised Edition. Carl L. Hubbs and Karl F. Lagler