

# Fish Identification

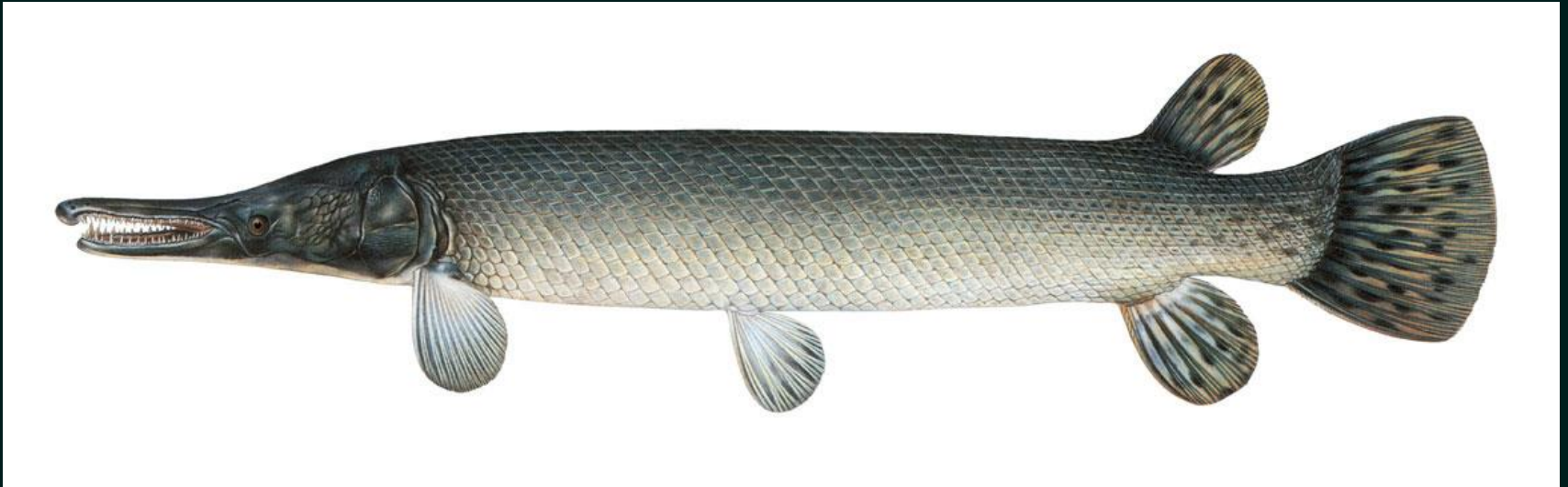


# References

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- Page, L.M. and B.M. Burr. 2011. Peterson Field Guide to Freshwater Fishes, second edition. Houghton Mifflin Harcourt Trade and Reference Publishers.
- Pflieger, W.L. 1997. The Fishes of Missouri. Missouri Department of Conservation.
- Thomas, C., T.H. Bonner, and B.G. Whiteside. 2007. Freshwater Fishes of Texas. Texas A&M University Press, College Station, Texas.
- Robison, H.W. and T.M. Buchanan. 1988. Fishes of Arkansas. The University of Arkansas Press, Fayetteville, Arkansas.

# Gars

- Ganoid scales
- Beaklike snout



*Alligator Gar.* Teeth on upper jaw in two rows

# Gars



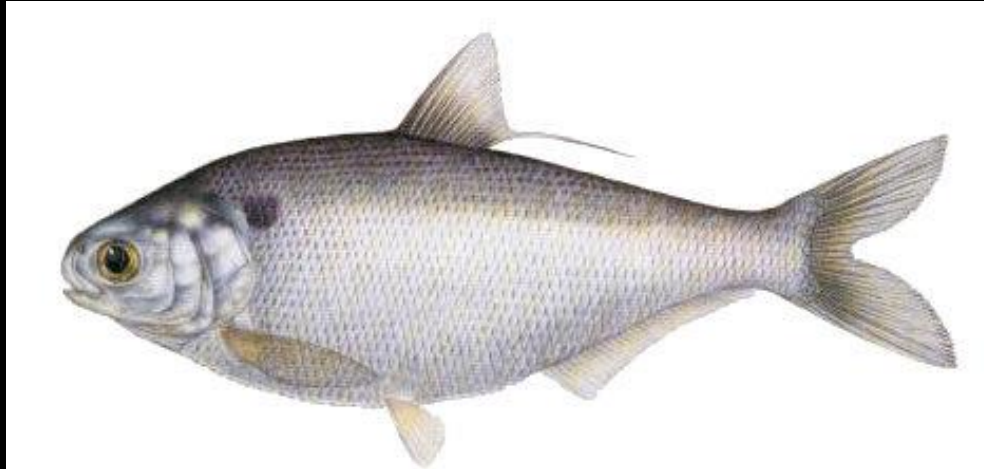
*Spotted Gar.* One row of teeth on upper jaw, Snout short



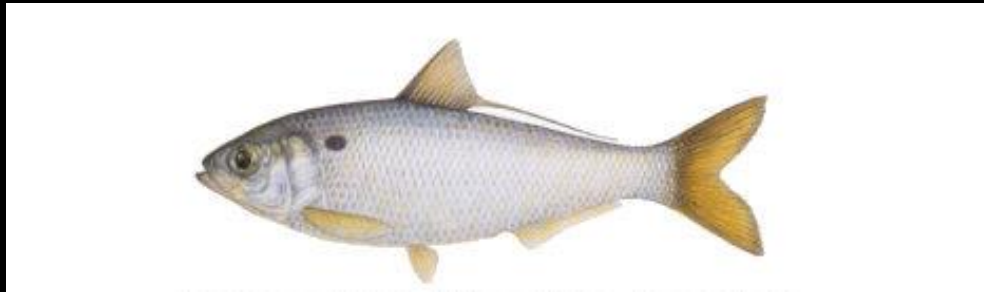
*Longnose Gar.* One row of teeth on upper jaw, Snout long and narrow

# Herrings

- Lateral line absent
- Keel along belly



*Gizzard Shad*: Subterminal mouth, blunt snout, large spot



*Threadfin Shad*: Terminal mouth, pointed snout, small spot

# Minnows



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# Campostoma

- Cartilaginous ridge on lower jaw
- Intestine long, wound around air bladder

John Lyons

cartilaginous, chisel-like lower lip

lack of barbels



Chad Thomas

# Cyprinella

- Typically deep-bodied minnows
- Dorsal fin with pigment between rays



*Red Shiner. Dark shoulder patch, chin bar*



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*Blacktail Shiner*. Distinct caudal spot



**Cyprinella**

# Notemigonus



*Golden Shiner*: Lateral line greatly decurved

# Macrhybopsis



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*Chubs*: Maxillary barbels present, most with speckling  
Differentiate by location

# Dionda



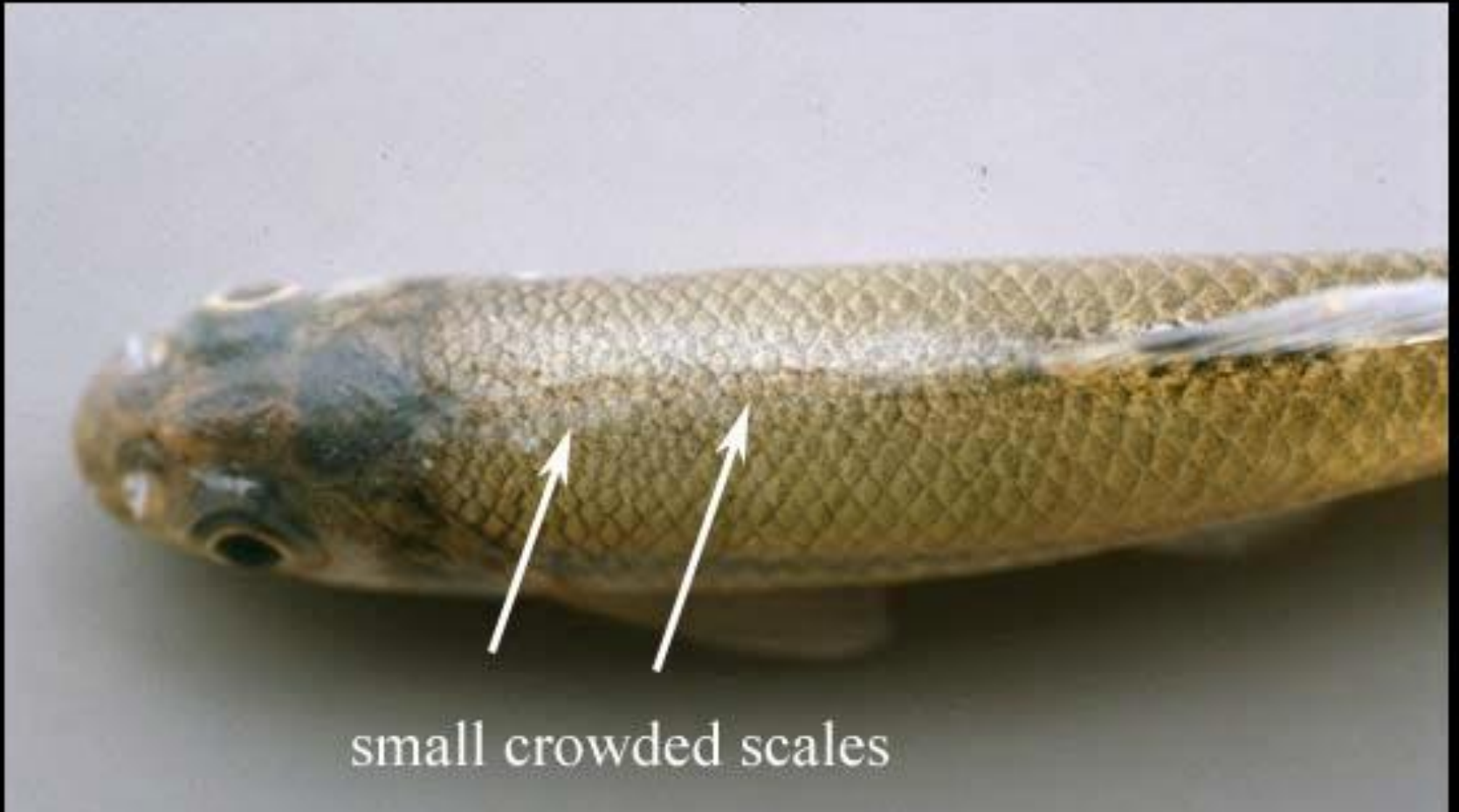
Chad Thomas

*Roundnose Minnows:* Black band through eye and around snout,  
Caudal spot, long coiled intestines  
Differentiate by location

# Pimephales



*Bullhead Minnow*: Crowded predorsal scales, caudal spot  
Dorsal fin pigment



**Pimephales**

# Notropis

- Typically slender-bodied, silver minnows



*Smalleye Shiner*



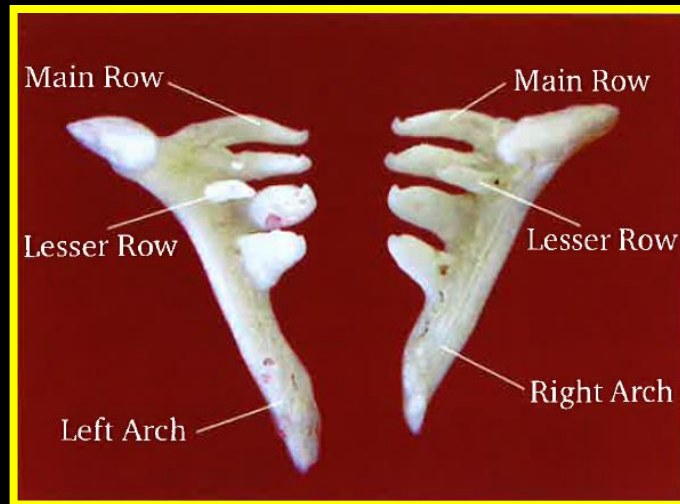
*Sabine Shiner*



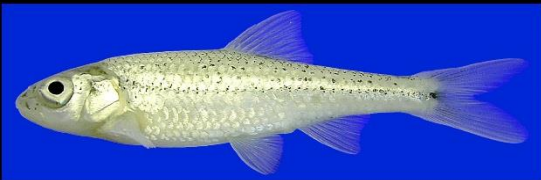
*Silverband Shiner*



*Ironcolor Shiner*



*Weed Shiner*



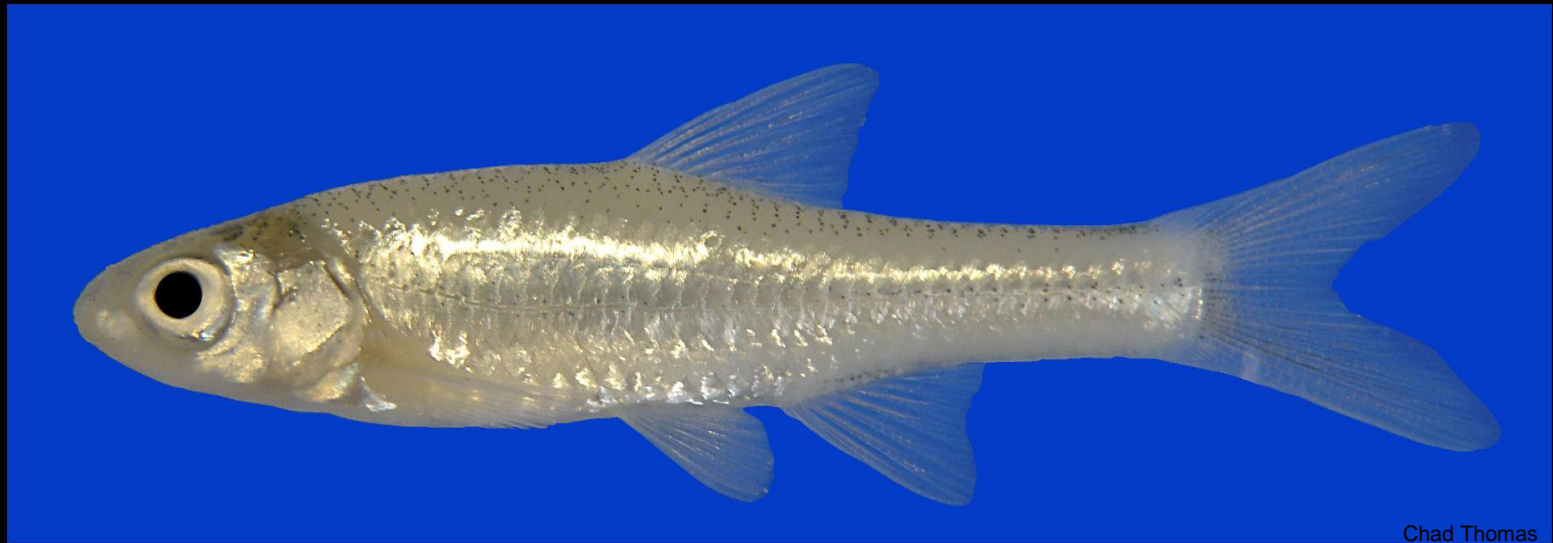
*Chihuahua Shiner*



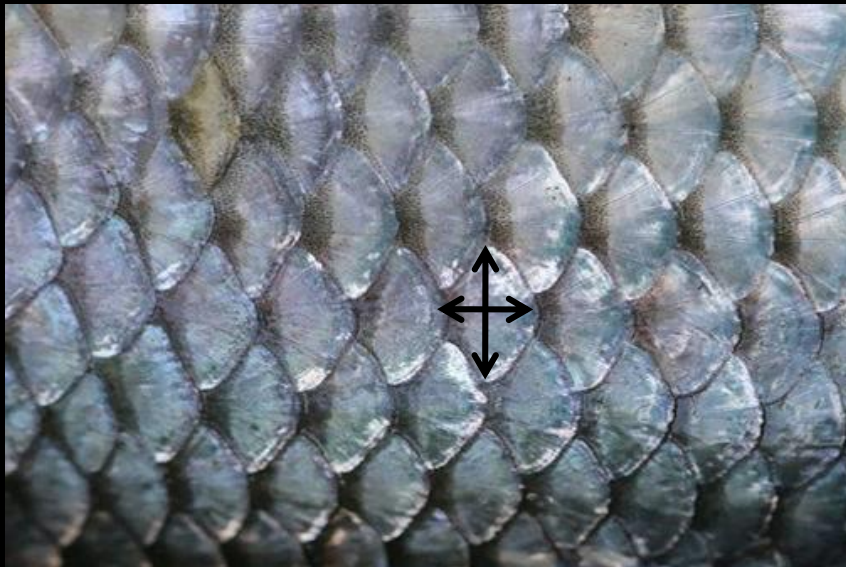
*Taillight Shiner*



# Elevated scales *Ghost Shiner* and *Mimic Shiner*



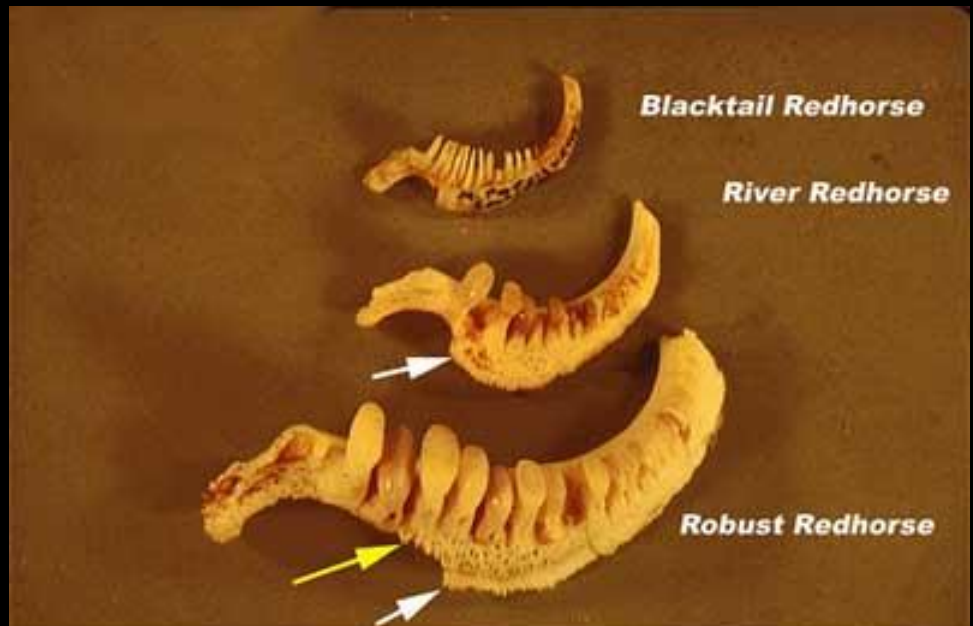
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# Cyprinus



*Common Carp*: Upper jaw with barbels, long dorsal fin with serrated spine



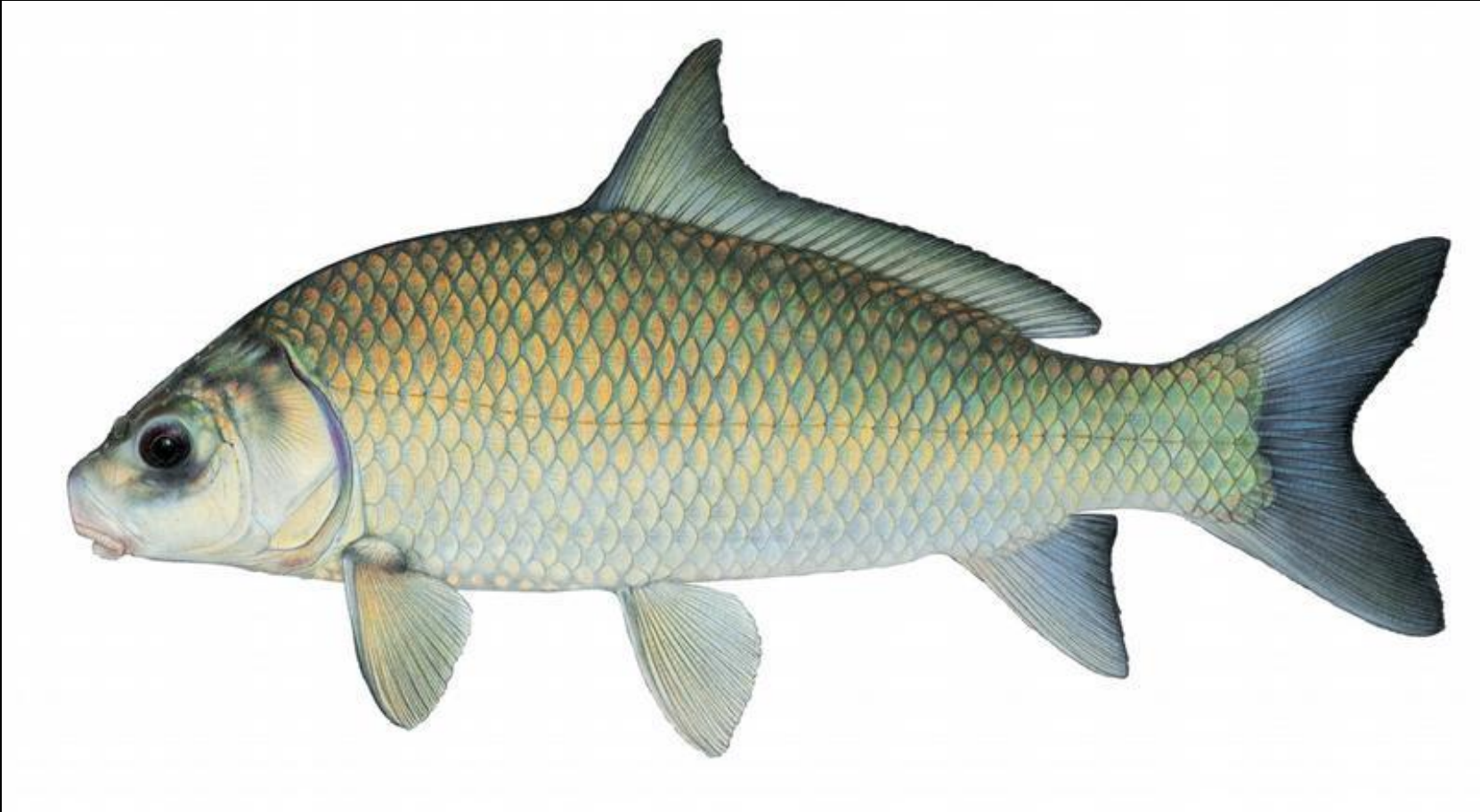
# Suckers

- Mouth adapted for sucking
- Pharyngeal teeth comblike, more than 7



Brian Zimmerman

# Ictiobus



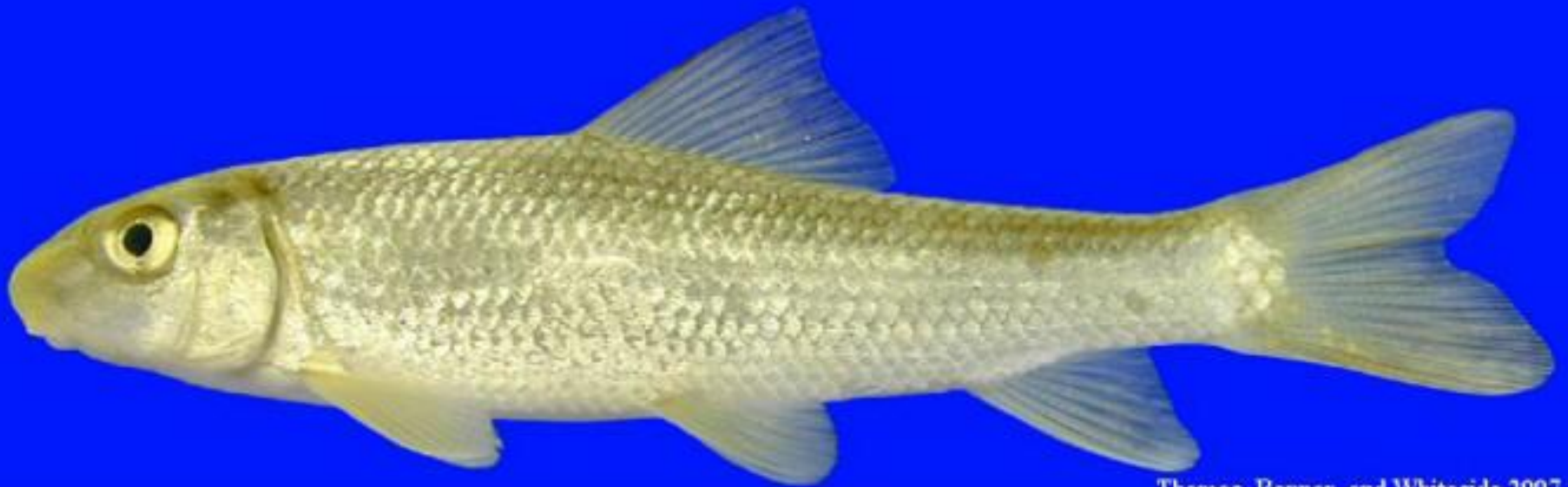
*Smallmouth Buffalo*: Deep-bodied, long dorsal fin, subopercle rounded

# Carpiodes



*River Carpsucker*: Deep-bodied, long dorsal fin, subopercle triangular

# Moxostoma



Thomas, Bonner, and Whiteside 2007

*Gray Redhorse*: Elongate body, Short Dorsal fin

# Bullhead Catfishes

- Caudal fin emarginate, adipose fin free



*Black Bullhead: Dark chin barbels*



*Yellow Bullhead: Light chin barbels*



# Flathead Catfish

- Caudal fin emarginate, adipose fin free
- Head depressed dorsally





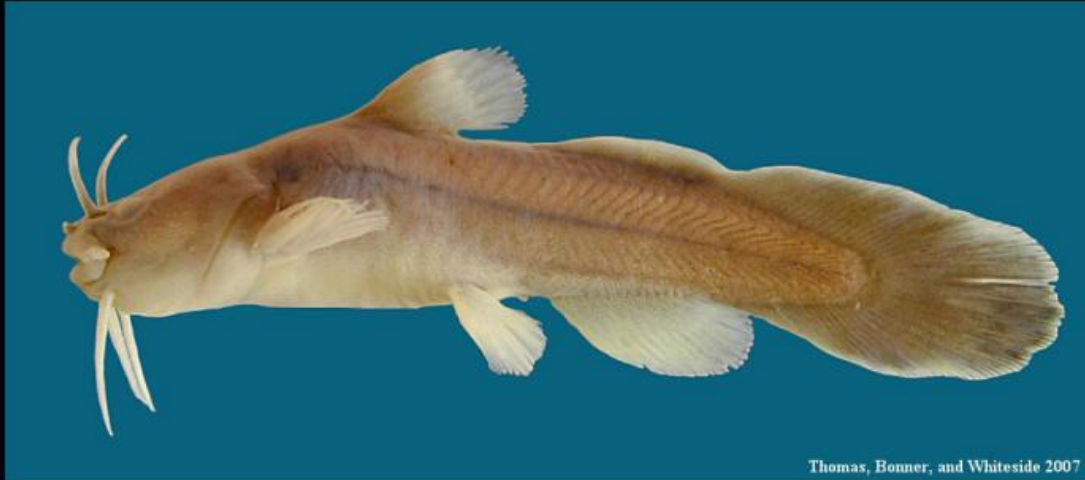
***Channel Catfish:*** Forked tail, rounded anal fish with 24-29 rays



***Blue Catfish:*** Forked tail, straight anal fish with 30-36 rays

# Madtom

- Rounded caudal fin, adipose fin connected



*Tadpole Madtom: Jaws equal*



*Freckled Madtom: Lower jaw underslung*

# Suckermouth Catfishes

- Armored scales dorsally, unscaled ventrally
- Dorsal fin ray count differentiates genus



# Livebearers

- Males with modified anal fin, Gonopodium



Photo By Chad Thomas, Texas State University - San Marcos



Photo by Chad Thomas, Texas State University - San Marcos

*Gambusia*: Dorsal fin behind anal fin, rounded caudal fin  
Males smaller and with gonopodium

# Killifishes



*Blackstripe Topminnow: Spots lighter than stripe*



*Blackspot Topminnow: Spots as dark/darker than stripe*

# Sunfishes, Black Basses



*Largemouth Bass*: Dorsal fin with deep notch  
Mouth extends beyond eye in adults  
No tooth patch on tongue



*Guadalupe, Spotted Bass:* Dorsal fin with shallow notch  
Mouth doesn't extend beyond eye in adults  
Tooth patch on tongue  
Differentiate based on location, habitat

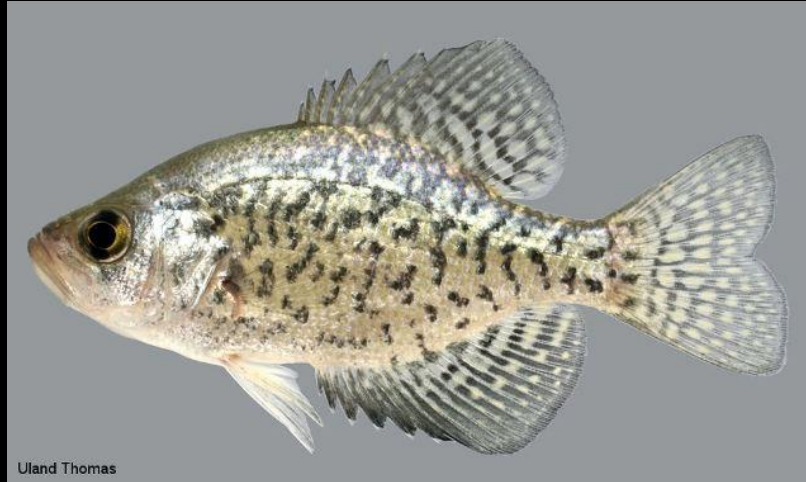


# Crappie

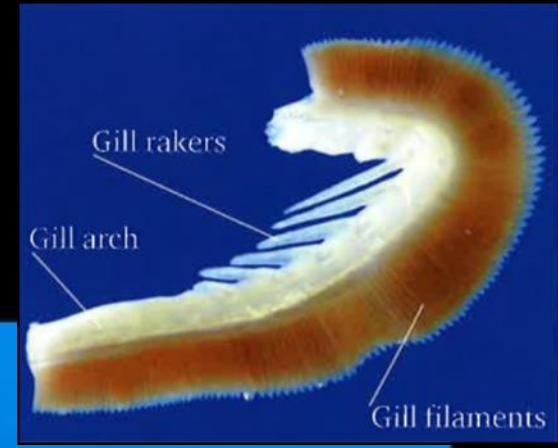
- Dorsal fin with 6-8 spines



*White Crappie: 6 dorsal fin spines*

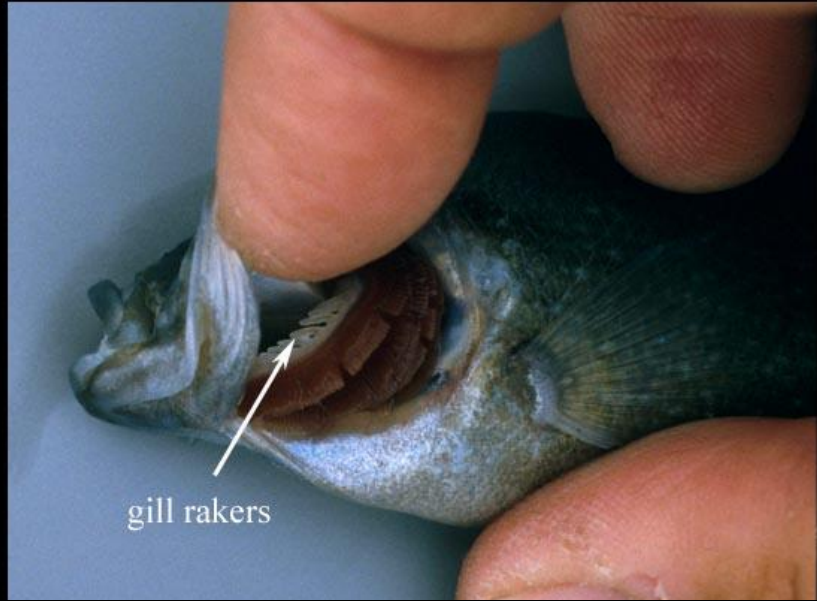


*Black Crappie: Checkerboard pattern, 7-8 dorsal fin spines*



Thomas, Bonner, and Whiteside 2007

*Warmouth*: Large mouth (Bass-like), tooth patch on tongue  
Long gill rakers



gill rakers



*Redear Sunfish: Small mouth, Long pectoral fin  
Opercle stiff*



*Bluegill*



*Green Sunfish*



*Longear Sunfish*



*Orangespotted Sunfish*



*Redbreast Sunfish*



*Redear Sunfish*



*Redspotted Sunfish:* Rows of red spots on adults  
Short pectoral fins, Opercle stiff, Med gill rakers

# Temperate Basses

- Opercle with a spine
- Two dorsal fins



*White Bass:* Dorsal fins separate  
Teeth in single patch on tongue  
Stripes continuous



*Striped Bass*: Dorsal fins separate  
Teeth in two patches on tongue  
Stripes continuous



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# Cichlids



*Rio Grande Cichlid: Anal fin spines 5-6*

Two dark spots: one mid-body, one caudal



*Tilapia*: Anal fin spines less than 5  
Gill rakers and teeth differentiate species

# Perches

- Two dorsal fins, Elongated bodies



# Percina



Photo By Chad Thomas, Texas State University - San Marcos

*Percina darters*: With dark rectangular/round lateral blotches



Thomas, Bonner, and Whiteside 2007

*Logperch*: Conical snout, very elongate  
Body with alternating dark, light stripes

# Etheostoma



*Darters*: Typically smaller than Percina  
Bars or mottled pattern  
Breeding colors in males

# Drum



*Freshwater Drum:* Deep-bodied, long dorsal fin  
Little pigment, mouth inferior