

Ichthyology Field Notebook
Phylogenetic listing of species

Order: Dasyatiformes

Family: Dasyatidae ^a
Dasyatis sabine

Order: Lepisosteiformes

Family: Lepisosteidae
Lepisosteus oculatus
Lepisosteus spatula

Order: Clupeiformes suborder: Clupeoidei

Family: Clupeidae
Dorosoma cepedianum
Brevoortia patronus
Harengula jaguana
Sardinella aurita

Order: Notacanthiformes ^{clupeiformes}

Family: Engraulidae
Anchoa cubana
Anchoa hepsetus
Anchoa mitchilli

Order: Cypriniformes

Family: Cyprinidae
Notemigonus crysoleucas
Phenacobius mirabilis
Notropis stramineus
^{Lythrurus} Notropis umbrailis ^{umbratilis}
Pimephales notatus
Pimephales promelas
Pimephales vigilax
Campostoma anomalum
Campostoma oligolepis
Cyprinella lutrensis
Cyprinella venusta
Family: Catostomidae
Carpiodes cyprinus
Erimyzon oblongus

Order: Siluriformes suborder: Siluroidei

Family: Ictaluridae
Ictalurus punctatus

5/10/94
Jack-Ray
Bohannon's
notebook

Ameiurus melas
Noturus nocturnus

Family: Ariidae
Arius felis

Order: Salmoniformes *Esociformes*
Family: Esocidae
Esox americanus americanus

Order: Lophiiformes
Family: Antennariidae
Histrio histrio

Order: Cyprinodontiformes
Family: Cyprinodontidae
Fundulus notatus
Fundulus heteroclitus
Fundulus similis
Cyprinodon variegatus
Family: Poeciliidae
Gambusia affinis

Order: Atheriniformes suborder: Atherinoidei
Family: Atherinidae
Labidesthes sicculus
Membras martinica
Menidia peninsulae

Order: Gasterosteiformes
Family: Syngnathidae
Hippocampus erectus
Hippocampus zosterae
Syngnathus floridae
Syngnathus louisianae
Syngnathus scovelli

Order: Perciformes suborder: Percoidei
Family: Centrarchidae
Micropterus salmoides
Lepomis gulosus
Lepomis cyanellus
Lepomis microlophus
Lepomis punctatus
Lepomis humilis
Lepomis macrochirus
Elassoma zonatum

Lepomis marginatus

Pomoxis annularis

Family: Percidae

Percina caprodes

Percina sciera

Etheostoma spectabile

Etheostoma caeruleum

Order: Perciformes

Family: Sparidae

Logodon rhomboides

Family: Sciaenidae

Cynoscion nebulosus

Menticirrhus americanus

Pogonias cromis

Sciaenops ocellatus

Stellifer lanceolatus

Family: Mugilidae

Mugil cephalus

Mugil curema

Family: Polynemidae

Polydactylus octonemus

Family: Clinidae

Labrisomus nuchipinnus

Family: Blenniidae

Scartella cristata

Family: Gobiidae

Bathygobius soporator

Gobionellus shufeldti

Gobiosoma bosc

Gobiosoma robustum

Family: Stromateidae

Peprilus triacanthus

Order: Pleuronectiformes

Family: Bothidae

Ancylopsetta quadrocellata

Citharichthys spilopterus

Paralichthys albigutta

Family: Soleidae *Cynoglossidae*

Symphurus plagiatus

Chronological Description

Site #1

3/19/1994

Sulphur River

Hwy. Jct. 19 and 24. 19.2 km South of Paris, TX

Delta Co., TX

T na R na Sec. na

Habitat: Stream

Species collected:

Lepomis ^{marginalis} macrochirus

(dollar sunfish) = (2)

Cyprinella lutrensis

(red shiner) = (40)

Lepomis macrochirus

(bluegill) = (1)

Pimephales vigilax

(bullhead minnow) = (34)

Collectors: Texas field trip, Spring 1994

Site #2

3/19/1994

South Sulphur River

Hwy. Jct. 19 and 54. 25.6 km North of Sulphur Springs, TX

Hopkins Co., TX

T na R na Sec. na

Habitat: Stream

Species collected:

Gambusia affinis

(western mosquitofish) = (12)

Lepisosteus oculatus

(spotted gar) = (1)

Lepomis cyanellus

(green sunfish) = (2)

Lepomis gulosus

(warmouth) = (1)

Elassoma zonatum

(banded pygmy sunfish) = (1)

Lepomis macrochirus

(bluegill) = (7)

Lepomis microlophus

(redeer sunfish) = (7)

Lepomis marginatus

(dollar sunfish) = (10)

Pomoxis annularis

(white crappie) = (1)

Collectors: Texas field trip, Spring 1994

Site #3

3/19/1994

Sabine River (North side)

Hwy. 37. 4.8 km South of Minniola, TX

Wood Co., TX

T na R na Sec. na

Habitat: Stream

Species collected

Cyprinella lutrensis

(red shiner) = (4)

Cyprinella venusta

(blacktail shiner) = (1)

Pimephales vigilax

(bullhead minnow) = (3)

<u>Elassoma zonatum</u>	(banded pygmy sunfish) = (2)
<u>Erimyzon oblongus</u>	(creek chubsucker) = (1)
<u>Notropis amabilis</u>	(Texas shiner) = (3)
<u>Notropis brazosensis</u>	(Brazos River shiner) = (10)
<u>Etheostoma fusiformes</u>	(swamp darter) = (1)
<u>Lepomis marginatus</u>	(dollar sunfish) = (2)
<u>Esox americanus americanus</u>	(redfin pickerel) = (1)

Collectors: Texas field trip, Spring 1994

Site #4

3/20/1994

Navasota River (North side)

Hwy. 79. 8km South of Marquez, TX

Leon Co., TX

T na R na Sec.na

Habitat: Stream

Species collected:

<u>Pimephales vigilax</u>	(bullhead minnow) = (5)
<u>Cyprinella lutrensis</u>	(red shiner) = (16)
<u>Percina sciera</u>	(dusky darter) = (1)
<u>Gambusia affinis</u>	(western mosquitofish) = (2)
<u>Lepomis marginatus</u>	(dollar sunfish) = (1)
<u>Labidesthes sicculus</u>	(brook silverside) = (2)

Collectors: Texas field trip, Spring 1994

Site #5

3/20/1994

Little Brazos River

Hwy. 21 South 9.6 km southwest of Bryan, TX

Brazos Co., TX

T na R na Sec.na

Habitat: Stream

Species collected:

<u>Cyprinella lutrensis</u>	(red shiner) = (12)
<u>Cyprinella venusta</u>	(blacktail shiner) = (16)
<u>Notropis oxyrinchus</u>	(sharpnose shiner) = (2)
<u>Notropis brazosensis</u>	(Brazos river shiner) = (12)
<u>Ictalurus punctatus</u>	(channel catfish) = (2)
<u>Fundulus notatus</u>	(blackstripe minnow) = (1)
<u>Dionda episcopa</u>	(roundnose minnow) = (8)
<u>Pimephales vigilax</u>	(bullhead minnow) = (6)
<u>Lepomis macrochirus</u>	(bluegill) = (1)
<u>Lepomis punctatus</u>	(spotted sunfish) = (1)
<u>Lepomis microlophus</u>	(redeer sunfish) = (1)
<u>Carpionodes carpio</u>	(river carpsucker) = (1)

Collectors: Texas field trip, Spring 1994

Site #6

3/21/1994

Hopper's Landing

Hwy. 239 6.4km North of Aransas National Wildlife Refuge

Refugio Co., TX

Habitat: salt water bay

Species collected:

<u>Stellifer lanceolatus</u>	(star drum) = (32)
<u>Lagodon rhomboides</u>	(pinfish) = (7)
<u>Pogonias cromis</u>	(black drum) = (35)
<u>Membras martinica</u>	(rough silverside) = (13)
<u>Mugil curema</u>	(white mullet) = (8)
<u>Mugil cephalus</u>	(striped mullet) = (1)
<u>Anchoa hepsetus</u>	(striped anchovy) = (25)
<u>Anchoa mitchilli</u>	(bay anchovy) = (9)
<u>Gobiosoma bosc</u>	(naked goby) = (3)
<u>Bathygobius soporator</u>	(frillfin goby) = (1)
<u>Fundulus heteroclitus</u>	(gulf killifish) = (1)
<u>Brevoortia patronus</u>	(gulf menhaden) = (1)
<u>Cyprinodon variegatus</u>	(sheepshead minnow) = (4)
<u>Paralichthys albigutta</u>	(gulf flounder) = (8)
<u>Cynoscion nebulosus</u>	(spotted sea trout) = (9)

Collectors: Texas field trip, Spring 1994

Site #7

3/21/1994

Aransas Bay (Southeast side of overpass)

Hwy. 355 3.2 km North of Fulton, TX

Aransas Co., TX

T na R na Sec. na

Habitat: saltwater bay

Species collected:

<u>Fundulus heteroclitus</u>	(gulf killifish) = (9)
<u>Fundulus similis</u>	(longnose killifish) = (2)
<u>Pogonias cromis</u>	(black drum) = (2)
<u>Stellifer lanceolatus</u>	(star drum) = (7)
<u>Anchoa mitchilli</u>	(bay anchovies) = (7)
<u>Cyprinodon variegatus</u>	(sheepshead minnow) = (1)
<u>Brevoortia patronus</u>	(gulf menhaden) = (3)
<u>Labrisomus nuchipinnus</u>	(hairy blenny) = (2)
<u>Cynoscion nebulosus</u>	(spotted sea trout) = (7)
<u>Menidia peninsulae</u>	(tidewater silverside) = (4)

<u>Symphurus plagiura</u>	(blackcheek tonque) = (1)
<u>Syngnathus scovelli</u>	(gulf pipefish) = (14)
<u>Paralichthys albigutta</u>	(gulf flounder) = (2)
<u>Lagodon rhomboides</u>	(pinfish) = (1)

Collectors: Texas field trip, Spring 1994

Site #8

3/22/1994

North Beach on Mustang Island (seashore)

P22 Road .16 km North of Padre Island, TX

Nueces Co., TX

T na R na Sec. na

Habitat: saltwater

Species collected:

<u>Ancylorsetta quadricellata</u>	(ocellated flounder) = (1)
<u>Menticorpus americanus</u>	(southern kingfish) = (1)
<u>Membras martinica</u>	(rough silverside) = (5)
<u>Brevoortia patronus</u>	(gulf menhaden) = (1)
<u>Lagodon rhomboides</u>	(pinfish) = (1)
<u>Syngnathus floridae</u>	(dusky pipefish) = (2)
<u>Polydactylus octonemus</u>	(atlantic threadfin) = (11)
<u>Heterostichus rostratus</u>	(scaled sardine) = (1)
<u>Stellifer lanceolatus</u>	(star drum) = (4)

Collectors: Texas field trip, Spring 1994

Site #13

3/22/1994

Adolf Thome Jr. County park

Hwy 292 South

Aransas Co., TX

T na R na Sec. na

Habitat: Backwater lagoon

Species collected:

<u>Arius felis</u>	(hardhead catfish) = (1)
<u>Lepisosteus spatula</u>	(alligator gar) = (1)

Collectors: Texas field trip, Spring 1994

Site #9

3/24/1994

Brazos Island

Hwy 4. 3.2 km. North of Boca Chica, TX

Rio Grande North side meets Gulf of Mexico

Cameron Co., TX

Habitat: Saltwater shoreline

Species collected:

<u>Pogonias cromis</u>	(black drum) = (1)
<u>Syngnathus louisianae</u>	(chain pipefish) = (1)
<u>Polydactylus octonemus</u>	(atlantic threadfin) = (7)
<u>Urophycis floridana</u>	(southern hake) = (3)
<u>Anchoa cubana</u>	(cuban anchovy) = (1)
<u>Gobionellus shufeldti</u>	(freshwater goby) = (13)
<u>Anchoa mitchilli</u>	(bay anchovy) = (2)
<u>Citharichthys spilopterus</u>	(bay whiff) = (15)
<u>Herengula jaguana</u>	(scaled sardine) = (1)
<u>Menidia pensilvanica</u>	(tidewater silverside) = (8)
<u>Sardinella aurita</u>	(spanish sardine) = (3)

Collector: Texas field trip, Spring 1994

Site #10

3/25/1994

Lagoona Madre

Hwy. 100 West .16 km North of South Padre City

Cameron Co., TX.

T_{na} R_{na} Sec_{na}

Habitat : Backwater Lagoon

Species collected:

<u>Hippocampus erectus</u>	(lined seahorse) = (2)
<u>Peprilus triacanthus</u>	(butterfish) = (17)
<u>Lucania parva</u>	(rainwater killifish) = (9)
<u>Bathygobius soporator</u>	(frillfin goby) = (3)
<u>Cynoscion nebulosus</u>	(spotted sea trout) = (4)
<u>Menidia pensilvanica</u>	(tidewater silverside) = (2)
<u>Hippocampus zosterae</u>	(dwarf seahorses) = (1)
<u>Fundulus similis</u>	(longnose killifish) = (3)
<u>Mugil cephalus</u>	(stripped mullet) = (1)
<u>Gobiosoma bosc</u>	(naked goby) = (1)
<u>Gobiosoma robustum</u>	(code goby) = (3)

Collectors: Texas field trip, Spring 1994

Site #11

3/25/1994

South Padre Island (Gulf of Mexico)

Hwy. 100 East 4.8 km North of South Padre City, Texas

Cameron Co. TX

Habitat: shoreline

Species collected:

<u>Hippocampus erectus</u>	(lined seahorse) = (1)
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Histrio histrio
Urophycis floridana
Collectors: Texas field trip, Spring 1994

(sargassumfish) = (3)
(southern hake) = (24)

Site #12
3/25/1994
South Padre Island. Southern end of South Padre City, Texas
Hwy 100 West .16 km at park
Cameron Co. TX
Habitat: Jetty's
Species collected:

Dasyatis sabina
Scartella crista

(atlantic stingray) = (1)
(molly miller) = (4)

Collectors: Texas field trip, Spring 1994

Site #14
4/16/1994
Hwy. jct 59 and 47 3.2 km South of Erie, KS
Neosho Co., KS
T 29s R 19e Sec. 12
Habitat: ponds and small lake
Species collected:

Notemigonus crysoleucas
Dorosoma cepedianum
Micropterus salmoides
Lepomis macrochirus
Lepomis humilis
Lepomis cyanellus
Lepomis microlophus
Pimephales promelas
Pomoxis annularis

(golden shiner) = (2)
(gizzard shad) = (2)
(largemouth bass) = (3)
(bluegill) = (3)
(orangespotted sunfish) = (2)
(green sunfish) = (1)
(redeer sunfish) = (2)
(fathead minnow) = (4)
(white crappie) = (1)

Collectors: Dan VanLeeuwen, Jack Bohannon, Liz Hicks, Andrea Taylor, Mark Macari, Alisyn

Site #15
4/22/1994
3.2 km North, then 1.4 km East of Catholic Church in St. Paul, KS
Neosho Co., KS
T 29s R 19e Sec. 6
Habitat: Stream
Species collected:

Camposioma anomalum
Camposioma oligolepis
Percina caprodes
Etheostoma spectabile
Etheostoma caeruleum
Ameiurus melas
Labidesthes sicculus
Notropis stramineus
Phenacobius mirabilis
Notemigonus crysoleucas
Notropis umbratilis
Noturus nocturnus

Lythrurus

(central stoneroller) = (3)
 (largescale stoneroller) = (3)
 (logperch) = (1)
 (orangethroat darter) = (2)
 (rainbow darter) = (2)
 (black bullhead) = (2)
 (brook silverside) = (10)
 (sand shiner) = (3)
 (suckermouth minnow) = (2)
 (golden shiner) = (4)
 (redfin shiner) = (5)
 (freckled madtom) = (1)

Collectors: Dan VanLeeuwen, Jack Bohannon, Liz Hick, Allsyn Austin, Andrea Taylor, Mark Macari

Texas trip

1. Lepomis macrochirus = 15
2. Cyprinella lutrensis = 72
3. Lepomis macrochirus = 9
4. Pimephales vigilax = 48
5. Gambusia affinis = 14
6. Lepisosteus oculatus = 1
7. Lepomis cyanellus = 2
8. Lepomis gulosus = 1
9. Elassoma zonatum = 3
10. Pomoxis annularis = 1
11. Cyprinella venusta = 17
12. Erimyzon oblongus = 1
13. Notropis amabilis = 3
14. Notropis brazosensis = 22
15. Etheostoma fusiformes = 1
16. Esox americanus americanus = 1
17. Percina sciera = 1
18. Labidesthes sicculus = 2
19. Notropis oxyrinchus = 2
20. Ictalurus punctatus = 2
21. Fundulus notatus = 1
22. Dionda episcopa = 8
23. Lepomis punctatus = 1
24. Lepomis microlophus = 1
25. Carpiodes carpio = 1
26. Stellifer lanceolatus = 43
27. Lagodon rhomboides = 9
28. Pogonias cromis = 38
29. Membras martinica = 18
30. Mugil curema = 8
31. Mugil cephalus = 12
32. Anchoa mitchilli = 25
33. Gobiosoma bosc = 4
34. Bathygobius soporator = 4
35. Fundulus heteroclitus = 10
36. Brevoortia patronus = 5
37. Cyprinodon variegatus = 5
38. Paralichthys albigutta = 10
39. Cynoscion nebulosus = 16
40. Fundulus similis = 5
41. Labrisomus nuchipinnus = 2
42. Menidia peninsulæ = 14
43. Symphurus plagiatus = 1
44. Syngnathus scovelli = 14
45. Ancyllopsetta quadrocellata = 1

46. Menticirrhus americanus = 1
47. Syngnathus floridae = 2
48. Polydactylus octonemus = 18
49. Henengula jaguana = 2
50. Arius felis = 1
51. Lepisosteus spatula = 1
52. Syngnathus louisianae = 1
53. Urophycis floridana = 27
54. Anchoa cubana = 1
55. Gobionellus shufeldti = 13
56. Citharichthys spilopterus = 15
57. Sardinella aurita = 3
58. Hippocampus erectus = 3
59. Peprilus triacanthus = 17
60. Lucania parva = 9
61. Hippocampus zosterae = 1
62. Gobiosoma robustum = 3
63. Histrio histrio = 3
64. Dasyatis sabinas = 1
65. Scartella crista = 4

Kansas collection

1. Notemigonus crysoleucas = 6
2. Dorasoma cepedianum = 2
3. Micropterus salmoides = 3
4. Lepomis macrochirus = 3
5. Lepomis humilis = 2
6. Lepomis microlophus = 2
7. Pimephales promelas = 4
8. Pomoxis annularis = 1
9. Campostoma anomalum = 3
10. Campostoma oligolepis = 3
11. Percina caprodes = 1
12. Etheostoma spectabile = 2
13. Etheostoma caeruleum = 2
14. Ameiurus melas = 2
15. Labidesthes sicculus = 10
16. Notropis stramineus = 3
17. Phenacobius mirabilis = 2
18. Notropis umbratilis = 5
19. Noturus nocturnus = 1

by *Noturus*

Specimen Location
(Texas specimens)

Jar #1

<u>Cyprinella lutrensis</u>	(red shiner)
<u>Pimephales vigilax</u>	(bullhead minnow)

Jar #2

<u>Gambusia affinis</u>	(western mosquitofish)
<u>Lepomis gulosus</u>	(warmouth)
<u>Lepomis marginatus</u>	(dollar sunfish)
<u>Elassoma zonatum</u>	(banded pygmy sunfish)

Jar #3

<u>Esox americanus americanus</u>	(redfin pickerel)
<u>Erimyzon oblongus</u>	(creek chubsucker)

Jar #4

<u>Percina sciera</u>	(dusky darter)
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Jar #5

<u>Fundulus notatus</u>	(blackstripe minnow)
<u>Cyprinella venusta</u>	(blacktail shiner)
<u>Ictalurus punctatus</u>	(channel catfish)
<u>Lepomis punctatus</u>	(spotted sunfish)

Jar #6

<u>Anchoa hepsetus</u>	(striped anchovy)
<u>Anchoa mitchilli</u>	(bay anchovy)
<u>Bathygobius soporator</u>	(frillfin goby)
<u>Cyprinodon variegatus</u>	(sheepshead minnow)
<u>Fundulus heteroclitus</u>	(gulf killifish)
<u>Gobiosoma bosc</u>	(naked goby)
<u>Lagodon rhomboides</u>	(pinfish)
<u>Mugil curema</u>	(white mullet)
<u>Mugil cephalus</u>	(striped mullet)
<u>Paralichthys albigutta</u>	(gulf flounder)
<u>Stellifer lanceolatus</u>	(star drum)
<u>Pogonias cromis</u>	(black drum)

Jar #7

<u>Cynoscion nebulosus</u>	(spotted sea trout)
<u>Fundulus similis</u>	(longnose killifish)
<u>Labrisomus nuchipinnus</u>	(hairy blenny)
<u>Symphurus plagiosa</u>	(blackcheek tongue)
<u>Syngnathus scovelli</u>	(gulf pipefish)

Jar #8

<u>Ancylopsetta quadrocellata</u>	(ocellated flounder)
<u>Brevoortia patronus</u>	(gulf menhaden)
<u>Harengula jaguana</u>	(scaled sardine)
<u>Membras martinica</u>	(rough silverside)
<u>Menticirrhus americanus</u>	(southern kingfish)
<u>Syngnathus floridae</u>	(dusky pipefish)
<u>Polydactylus octonemus</u>	(atlantic threadfin)

Jar #9

<u>Anchoa cubana</u>	(cuban anchovy)
<u>Citharichthys spilopterus</u>	(bay whiff)
<u>Syngnathus louisianae</u>	(chain pipefish)
<u>Menidia peninsulae</u>	(tidewater silverside)
<u>Gobionella shufeldti</u>	(freshwater goby)
<u>Sardinella aurita</u>	(spanish sardine)

Jar #10

<u>Gobiosoma robustum</u>	(code goby)
<u>Hippocampus zosterae</u>	(dwarf seahorse)
<u>Hippocampus erectus</u>	(lined seahorse)
<u>Peprilus triacanthus</u>	(butterfish)

Jar #11

<u>Histrio histrio</u>	(sargassumfish)
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Jar #12

<u>Dasyatis sabine</u>	(atlantic stingray)
<u>Scartella cristata</u>	(molly miller)

Jar #13

<u>Arius felis</u>	(hardhead catfish)
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Refer to George Thomas Photo

<u>Lepisosteus oculatus</u>	(spotted gar)
<u>Lepisosteus spatula</u>	(alligator gar)

(Kansas specimens)

Refer to Alisyn Austin's collection jars.

Jar #1

- ✓ Labidesthes sicculus (brook silverside)
✓ Notropis stramineus (sand shiner)

Jar #2

- ✓ Percina caprodes (logperch)
✓ Notemigonus crysoleucas (golden shiner)
2 yellowish ✓ Notropis umbratilis (redfin shiner)
✓ Pimephales notatus (bluntnose minnow)

Jar #3

- ✓ Pomoxis annularis (white crappie)
#4 ✓ Camptostoma anomalum (central stoneroller)
#5 ✓ Camptostoma oligolepis (largescale stoneroller)
✓ Noturus nocturnus (freckled madtom)

Jar #4

- ✓ Ameiurus melas (black bullhead)

Jar #5

- ✓ Etheostoma caeruleum (rainbow darter)
✓ Etheostoma spectabile (orangethroat darter)
✓ Phenacobius mirabilis (suckermouth minnow)

Jar #6

- ✓ Dorosoma cepedianum (gizzard shad)
✓ Micropterus salmoides (largemouth bass)
✓ Lepomis macrochirus (bluegill)
✓ Lepomis humilis (orangespotted sunfish)
✓ Lepomis cyanellus (green sunfish) *microlophus - note long pectoral, small mouth.*
✓ Lepomis microlophus (redeer sunfish)
✓ Pimephales promelas (fathead minnow)

Collectors on the Texas Field Trip

**Liz Hicks
Andrea Taylor
Jack Bohannon
Dan VanLeeuwen
Jamie Doolin
Daniel Albertini
Diane Borovetz
Thomas Hayes
Douglas Jagels
Matthew Kerns
Peyton Lewman
Brent Luedke
Mark Macari
John Murray
Ronald Payne
Christopher Peterson
Aaron Schnurbusch**