

Engraulidae is in Clupeiformes (pg. 1)

Symphurus plagiosa is in
Cynoglossidae, not Soleidae

E. spectabile shd be E. blennoides in
one jar

FIELD NOTEBOOK

for

ICHTHYOLOGY 533
DR. TRIPLETT

Prepared by

THOMAS HAYES
Sr. Biology Major
May 4th, 1994

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 - M. spotted sea trout
 - N. longnose killifish
 - O. blackcheek tongue
 - P. gulf pipefish
 - Q. rough silverside
 - R. bay whiff
 - S. freshwater goby
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PHYLOGENETIC LISTING

PHYLOGENETIC LISTING

I. Phylogenetic listing:

- Order: Dasyatiformes
Family: Dasyatidae
Dasyatis sabina.....atlantic stingray
- Order: Lepisosteiformes
Family: Lepisosteidae
Lepisosteus oculatus.....spotted gar
Lepisosteus spatula.....alligator gar
- Order: Clupeiformes
Family: Clupeidae
Brevoortia patronus.....gulf menhaden
Harengula jaguana.....scaled sardine
Sardinella aurita.....spanish sardine
- Order: Notacanthiformes
Family: Engraulidae
Anchoa cubana.....cuban anchovy
Anchoa hepsetus.....striped anchovy
Anchoa mitchilli.....bay anchovy
- Order: Cypriniformes
Family: Cyprinidae
Campostoma anomalum.....central stoneroller
Cyprinella camura.....bluntnose shiner
Cyprinella lutrensis.....red shiner
Cyprinella spiloptera.....spotfin shiner
Cyprinella venusta.....blacktail shiner
Dionda episcopa.....roundnose minnow
Lythrurus umbratilis.....redfin shiner
Notemigonus crysoleucas.....golden shiner
Notropis amabilis.....Texas shiner
Notropis oxyrinchus.....sharpnose shiner
Notropis shumardi.....silverband shiner
Phenacobius mirabilis.....suckermouth minnow
Pimephales tenellus.....slim minnow
Pimephales vigilax.....bullhead minnow
- Order: Cypriniformes
Family: Catostomidae
Carpiodes carpio.....river carpsucker
Erimyzon oblongus.....creek chubsucker
- Order: Siluriformes
Family: Ictaluridae
Ictalurus punctatus.....channel catfish
Noturus exilis.....slender madtom

1. Phylogenetic history:

Order: Dasypodiformes
Family: Dasypodidae
Dasypus sabini.....scientific stringay

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Order: Lepisosteiformes
Family: Lepisosteidae
Lepisosteus oculatus.....spotted gar
Lepisosteus spatula.....alligator gar

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Order: Clupeiformes
Family: Clupeidae
Euvocella patronus.....gulf menhaden
Harvestella tawana.....scaled sardine
Sardinella aurita.....spanish sardine

Order: Notacanthiformes
Family: Engerlingidae
Anchoa mitchilli.....bay anchovy
Anchoa hepsetus.....striped anchovy
Anchoa cubana.....cuban anchovy

Order: Cypriniformes
Family: Cyprinidae

Gambusia anomala.....central stone roller
Cyprinella camura.....bluntnose shiner
Cyprinella lutrensis.....red shiner
Cyprinella spiloptera.....spottin shiner
Cyprinella venusta.....blacktail shiner
Dionda episcopa.....roundnose minnow
Lythrurus umbratilis.....redfin shiner
Notemigonus crysoleucas.....golden shiner
Notropis anabilis.....texas shiner
Notropis oxyrinchus.....sharpnose shiner
Notropis shufeldti.....silverband shiner
Pimephales mirabilis.....sucker-mouth minnow
Pimephales tenellus.....slim minnow
Pimephales vigilax.....polthead minnow

Order: Gymniformes
 Family: Gastostomidae
Gastrophysa viridis
Brachynema obscurum

Order: Siluriformes
Family: Lobotidae
Lobatus rostratus...channel catfish
Notropis exilis...slender snout

Order: Siluriformes
Family: Ariidae
Arius felis.....hardhead catfish

Order: Salmoniformes
Family: Esocidae
Esox americanus americanus....redfin pickerel

Order: Gadiformes
Family: Gadidae
Urophycis floridana.....southern hake

Order: Lophiiformes
Family: Antennariidae
Histrio histrio.....sargassumfish

Order: Cyprinodontiformes
Family: Cyprinodontidae
Cyprinodon variegatus.....sheepshead minnow
Fundulus heteroclitus.....gulf killifish
Fundulus notatus.....blackstripe topminnow
Fundulus olivaceus.....blackspotted topminnow
Fundulus similis.....longnose killifish
Lucania parva.....rainwater killifish

Order: Cyprinodontiformes
Family: Poeciliidae
Gambusia affinis.....western mosquitofish

Order: Atheriniformes
Family: Atherinidae
Labidesthes sicculus.....brook silverside
Membras martinica.....rough silverside
Menidia peninsulae.....tidewater silverside

Order: Gasterosteiformes
Family: Syngnathidae
Hippocampus erectus.....lined seahorse
Hippocampus zosterae.....dwarf seahorse
Syngnathus floridae.....dusky pipefish
Syngnathus louisianae.....chain pipefish
Syngnathus scovelli.....gulf pipefish

Order: Perciformes
Family: Centrarchidae
Elassoma zonatum.....banded pygmy sunfish
Lepomis cyanellus.....green sunfish
Lepomis gulosus.....warmouth
Lepomis macrochirus.....blue gill
Lepomis marginatus.....dollar sunfish
Lepomis megalotus.....longear sunfish
Lepomis microlophus.....redeer sunfish

Order: Siluriformes
Family: Aridae
Arius latipes.....hardhead catfish

Order: Salmoniformes
Family: Escocidae
Salmo gairdneri.....rainbow trout

Order: Gadiformes
Family: Gadidae
Gadus macrocephalus.....Atlantic haddock

Order: Lophiiformes
Family: Antennariidae
Hippocampus hippocampus.....seahorse

Order: Cyprinodontiformes
Family: Cyprinodontidae
Cyprinodon variegatus.....mollies
Fundulus heteroclitus.....gambusia
Fundulus notatus.....blackchin shiner
Fundulus olivaceus.....blackchin shiner
Fundulus similis.....longnose killifish
Lucania parva.....rainbowfish

Order: Cyprinodontiformes
Family: Poeciliidae
Gambusia affinis.....gambusia

Order: Atheriniformes
Family: Atherinidae
Atherina affinis.....silverside
Menidia menidia.....Atlantic silverside
Menidia beryllina.....Atlantic silverside

Order: Gasterosteiformes
Family: Syngnathidae
Hippocampus erastri.....seahorse
Hippocampus kuda.....seahorse
Hippocampus kuda.....seahorse
Hippocampus kuda.....seahorse
Hippocampus kuda.....seahorse
Hippocampus kuda.....seahorse

Order: Perciformes
Family: Centrarchidae
Lepomis microlophus.....bluegill
Lepomis macrochirus.....bluegill
Lepomis gibbosus.....bluegill
Lepomis gibbosus.....bluegill
Lepomis gibbosus.....bluegill
Lepomis gibbosus.....bluegill

Order: Perciformes

Family: Centrarchidae (cont.)

Lepomis punctatus.....spotted sunfish
Pomoxis annularis.....white crappie
Pomoxis nigromaculatus.....black crappie

Order: Perciformes

Family: Percidae

Etheostoma blenniodes.....greenside darter
Etheostoma flabellare.....fantail darter
Etheostoma fusiforme.....swamp darter
Etheostoma spectabile.....organgethroat darter
Percina caprodes.....log perch
Percina sciera.....dusky darter

Order: Perciformes

Family: Sparidae

Logodon rhomboides.....pinfish

Order: Perciformes

Family: Sciaenidae

Cynoscion nebulosus.....spotted seatrout
Menticirrhus americanus.....southern kingfish
Pogonias cromis.....black drum
Sciaenops ocellatus.....red drum
Stellifer lanceolatus.....star drum

Order: Perciformes

Family: Mugilidae

Mugil cephalus.....striped mullet
Mugil curema.....white mullet

Order: Perciformes

Family: Polynemidae

Polydactylus octonemus.....atlantic threadfin

Order: Perciformes

Family: Clinidae

Labrisomus nuchipinnus.....hairy blenny

Order: Perciformes

Family: Blenniidae

Scartella cristata.....molly miller

Order: Perciformes

Family: Gobiidae

Bathygobius soporator.....frillfin goby
Gobionellus shufeldti.....freshwater goby
Gobiosoma bosc.....naked goby
Gobiosoma robustum.....code goby

Order: Perciformes
Family: Centrarchidae (cont.)
Lepomis punctatus.....spotted sunfish
Pomoxis annularis.....white crappie
Pomoxis nigromaculatus.....black crappie

Order: Perciformes
Family: Percidae
Etheostoma blennioides.....greenhide darter
Etheostoma blennioides.....fantail darter
Etheostoma blennioides.....swamp darter
Etheostoma blennioides.....orangefin darter
Percina caprodes.....log perch
Percina caprodes.....dusky darter

Order: Perciformes
Family: Sparidae
Loachichthys lucida.....gulf killifish

Order: Perciformes
Family: Sciaenidae
Cynoscion nebulosus.....spotted seatrout
Menticirrhus americanus.....southern kingfish
Pogonias cromis.....black drum
Sciaenops ocellatus.....red drum
Stellifer lanceolatus.....star drum

Order: Perciformes
Family: Mugilidae
Mugil cephalus.....striped mullet
Mugil curema.....white mullet

Order: Perciformes
Family: Polycentridae
Polydactylus setirostris.....atlantic threadfin

Order: Perciformes
Family: Clinidae
Labrisomus xanthurus.....hairy blenny

Order: Perciformes
Family: Blenniidae
Scartella cristata.....molly miller

Order: Perciformes
Family: Gobiidae
Bathygobius soporator.....trillium goby
Gobionellus shufeldti.....freshwater goby
Gobiosoma bosc.....naked goby
Gobiosoma robustum.....cave goby

Order: Perciformes

Family: Stromateidae

Peprilus triacanthus.....butterfish

Order: Pleuronectiformes

Family: Bothidae

Ancylopsetta quadrocellata....ocellated flounder

Citharichthys spilopterus....bay whiff

Paralichthys albigutta.....gulf flounder

Order: Pleuronectiformes

Family: Soleidae

Symphurus plagiusa.....blackcheek tongue

Order: Perciformes
Family: Stomatidae
Peprilus triacanthus.....butterfish

Order: Pleuronectiformes
Family: Bothidae
Ancylometta quadricellata.....ocellated flounder
Citharichthys spilopterus.....bay whiff
Paralichthys alosinus.....gulf flounder

Order: Pleuronectiformes
Family: Soleidae
Symphurus platus.....blackcheek tongue

CHRONOLOGICAL DESCRIPTION
by date

II. Chronological description

Site #1

19 March, 1994

Sulphur River

Hwy. Jct. 19 & 24. 19.2 km south of Paris, Texas

Delta County, TX.

7.5 minute quadrangle names: 33095 D-5

Habitat: Stream

Species collected:

Cyprinella lutrensis.....red shiner (40)

Lepomis macrochirus.....blue gill (1)

Lepomis marginatus.....dollar sunfish (2)

Pimephales vigilax.....bullhead minnow (34)

Collectors: Texas field trip, Spring 1994

Site #2

19 March, 1994

South Sulphur River

Hwy. Jct. 19 & 54. 25.6 km north of Sulphur Springs, Texas

Hopkins County, TX.

7.5 minute quadrangle names: 33095 C-5

Habitat: Stream

Species collected:

Elassoma zonatum.....banded pygmy sunfish (1)

Gambusia affinis.....western mosquitofish (12)

Lepisosteus oculatus.....spotted gar (1)

Lepomis cyanellus.....green sunfish (2)

Lepomis gulosus.....warmouth (1)

Lepomis macrochirus.....blue gill (7)

Lepomis microlophus.....redeer sunfish (7)

Lepomis marginatus.....dollar sunfish (10)

Pomoxis annularis.....white crappie (1)

Collectors: Texas field trip, Spring 1994

Site #3

19 March, 1994

Sabine River (North side)

Hwy. 37. 4.8 km south of Minniola, Texas

Wood County, TX.

7.5 minute quadrangle names: 32095 E-4

Habitat: Stream

Species collected:

Cyprinella lutrensis.....red shiner (4)

Cyprinella venusta.....blacktail shiner (1)

Elassoma zonatum.....banded pygmy sunfish (2)

Erimyzon oblongus.....creek chubsucker (1)

Esox americanus americanus.....redfin pickerel (1)

Etheostoma fusiforme.....swamp darter (1)

Lepomis marginatus.....dollar sunfish (2)

Notropis amabilis.....Texas shiner (3)

Notropis shumardi.....silverband shiner (10)

Pimephales vigilax.....bullhead minnow (3)

Collectors: Texas field trip, Spring 1994

11. Chronological description

Site #1
19 March, 1994
Guilford River
Hwy. 301. 19 & 24. 19.1 km south of Paris, Texas
Delta County, TX.
7.5 minute quadrangle names: 33095 E-5
Habitat: Stream
Species collected:
Gyrinocheilus aethiops (40).....red shiner (40)
Lepomis macrochirus (1).....blue gill (1)
Lepomis marginatus (2).....dollar sunfish (2)
Pimephales vigilax (34).....bullhead minnow (34)
Collectors: Texas field trip, Spring 1994

Site #2
19 March, 1994
South Guilford River
Hwy. 301. 19 & 24. 25.6 km north of Guilford Springs, Texas
Hopkins County, TX.
7.5 minute quadrangle names: 33095 G-5
Habitat: Stream
Species collected:
Alburnus alburnus (1).....banded pygmy sunfish (1)
Gambusia affinis (12).....western mosquitofish (12)
Lepidosteus oculatus (1).....spotted gar (1)
Lepomis cyanellus (2).....green sunfish (2)
Lepomis gibbosus (1).....warmouth (1)
Lepomis macrochirus (7).....blue gill (7)
Lepomis microlophus (7).....redear sunfish (7)
Lepomis marginatus (10).....dollar sunfish (10)
Stizostedion punctulatus (1).....white crappie (1)
Collectors: Texas field trip, Spring 1994

Site #3
19 March, 1994
Sabine River (North side)
Hwy. 37. 4.8 km south of Minniola, Texas
Wood County, TX.
7.5 minute quadrangle names: 33095 E-4
Habitat: Stream
Species collected:
Gyrinocheilus aethiops (4).....red shiner (4)
Gyrinocheilus venusta (1).....blacktail shiner (1)
Alburnus alburnus (2).....banded pygmy sunfish (2)
Emizyon oblongus (1).....brook chub (1)
Esoc americanus americanus (1).....redfin pickerel (1)
Etheostoma caeruleum (1).....swamp darter (1)
Lepomis marginatus (2).....dollar sunfish (2)
Notropis amabilis (3).....Texas shiner (3)
Notropis shumardi (10).....silverband shiner (10)
Pimephales vigilax (3).....bullhead minnow (3)
Collectors: Texas field trip, Spring 1994

Site #4

20 March, 1994

Navasota River (North side)

Hwy. 79. 8 km. south of Marquez, Texas

Leon County, TX.

7.5 minute quadrangle names: 31096 B-3

Habitat: Stream

Species collected:

Cyprinella lutrensis.....red shiner (16)
Gambusia affinis.....western mosquitofish (2)
Labidesthes sicculus.....brook silverside (2)
Lepomis marginatus.....dollar sunfish (3)
Percina sciera.....dusky darter (1)
Pimephales vigilax.....bullhead minnow (5)

Collectors: Texas field trip, Spring 1994

Site #5

20 March, 1994

Little Brazos River

Hwy 21 south. 9.6 km. southwest of Bryan, Texas

Brazos County, TX.

7.5 minute quadrangle names: 30099 F-4

Habitat: Stream

Species collected:

Carpiodes carpio.....river carpsucker (1)
Cyprinella lutrensis.....red shiner (12)
Cyprinella venusta.....blacktail shiner (16)
Dionda episcopa.....roundnose minnow (8)
Fundulus notatus.....blackstripe topminnow (1)
Fundulus olivaceus.....blackspotted topminnow (1)
Ictalurus punctatus.....channel catfish (2)
Lepomis cyanellus.....green sunfish (1)
Lepomis microlophus.....redeer sunfish (1)
Lepomis punctatus.....spotted sunfish (1)
Notropis shumardi.....silverband shiner (12)
Notropis oxyrhynchus.....sharpnose shiner (2)
Pimephales vigilax.....bullhead minnow (6)

Collectors: Texas field trip, Spring 1994

Site #6

21 March, 1994

Hopper's Landing

Hwy. 239. 6.4 km. north of Aransas National Wildlife Refuge

Refugio County, Texas

7.5 minute quadrangle names: 28096 D-7

Habitat: Salt water bay

Species collected:

Anchoa hepsetus.....striped anchovy (25)
Anchoa mitchilli.....bay anchovy (9)
Bathygobius soporator.....frillfin goby (1)
Brevoortia patronus.....gulf menhaden (1)
Cyprinodon variegatus.....sheepshead minnow (4)
Fundulus heteroclitus.....gulf killifish (1)
Gobiosoma bosc.....naked goby (3)

Site #4
 20 March, 1994
 Navasota River (North side)
 Hwy. 79, 8 km. south of Marquet, Texas
 Leon County, TX.
 7.5 minute quadrangle names: 31096 E-8
 Habitat: Stream
 Species collected:
 Cyprinella lutrensis.....red shiner (16)
 Gambusia affinis.....western mosquitofish (2)
 Labidesthes sicculus.....brook silverside (2)
 Lepomis marginatus.....dollar sunfish (8)
 Percina sciera.....dusky darter (1)
 Rhipidesthes vixax.....bulhead minnow (6)
 Collectors: Texas field trip, Spring 1994

Site #5
 20 March, 1994
 Little Brazos River
 Hwy 21 south, 9.6 km. southwest of Bryan, Texas
 Brazos County, TX.
 7.5 minute quadrangle names: 30099 F-4
 Habitat: Stream
 Species collected:
 Carpiodes carpio.....river carp sucker (1)
 Cyprinella lutrensis.....red shiner (12)
 Cyprinella venusta.....blacktail shiner (16)
 Labeo episcopus.....roundnose minnow (8)
 Fundulus notatus.....blackstripe topminnow (1)
 Fundulus olivaceus.....blackspotted topminnow (1)
 Labeo punctatus.....channel catfish (2)
 Lepomis cyanellus.....green sunfish (1)
 Lepomis microlophus.....redear sunfish (1)
 Lepomis punctatus.....spotted sunfish (1)
 Notropis shumardi.....silverband shiner (12)
 Notropis oxyrinchus.....sharpnose shiner (2)
 Rhipidesthes vixax.....bulhead minnow (6)
 Collectors: Texas field trip, Spring 1994

Site #6
 21 March, 1994
 Hopper's Landing
 Hwy. 289, 6.4 km. north of Arkansas National Wildlife Refuge
 Batavia County, Texas
 7.5 minute quadrangle names: 28096 D-7
 Habitat: Salt water bay
 Species collected:
 Anchoa hepsetus.....striped anchovy (25)
 Anchoa mitchilli.....bay anchovy (9)
 Bathypagrus sordidus.....trillium goby (1)
 Brevoortia patronus.....gulf menhaden (1)
 Cyprinodon variegatus.....sheepshead minnow (4)
 Fundulus heteroclitus.....gulf killifish (1)
 Gobiosoma bosc.....naked goby (8)

Hopper's Landing

Species collected (cont.):

Lagodon rhomboides.....pinfish (7)
Membras martinica.....rough silverside (13)
Mugil cephalus.....striped mullet (1)
Mugil curema.....white mullet (8)
Paralichthys albigutta.....gulf flounder (8)
Pogonias cromis.....black drum (35)
Sciaenops ocellatus.....red drum (9)
Stellifer lanceolatus.....star drum (32)

Collectors: Texas field trip, Spring 1994

Site #7

21 March, 1994

Aransas Bay (Southeast side of overpass)

Hwy. 355. 3.2 km. north of Fulton, Texas

Aransas County, TX.

7.5 minute quadrangle names: 28097 A1

Habitat: Saltwater Bay

Species collected:

Anchoa mitchilli.....bay anchovy (7)
Brevoortia patronus.....gulf menhaden (3)
Cyprinodon variegatus.....sheepshead minnow (1)
Cynoscion nebulosus.....spotted sea trout (7)
Fundulus heteroclitus.....gulf killifish (9)
Fundulus similis.....longnose killifish (2)
Labrisomus nuchipinnus.....hairy blenny (2)
Lagodon rhomboides.....pinfish (1)
Menidia peninsulae.....tidewater silverside (4)
Paralichthys albigutta.....gulf flounder (2)
Pogonias cromis.....black drum (2)
Stellifer lanceolatus.....star drum (7)
Symphurus plagiura.....blackcheek tongue (1)
Syngnathus scovelli.....gulf pipefish (14)

Collectors: Texas field trip, Spring 1994

Site #8

22 March, 1994

North Beach Mustang Island (seashore)

P22 Road. 1/10 mi. north of Padre Island (Gulf of Mexico), Texas

Nueces County, TX.

7.5 minute quadrangle names: 27097 F-2

Habitat: Saltwater off of shoreline

Species collected:

Ancyllopsetta quadrocellata.....ocellated flounder (1)
Brevoortia patronus.....gulf menhaden (1)
Henengula jaguana.....scaled sardine (1)
Lagodon rhomboides.....pinfish (1)
Membras martinica.....rough silverside (5)
Menticirrhus americanus.....southern kingfish (1)
Polydactylus octonemus.....atlantic threadfin (11)
Stellifer lanceolatus.....star drum (4)
Syngnathus floridae.....dusky pipefish (2)

Collectors: Texas field trip, Spring 1994

Collectors: Texas field trip, Spring 1984
 Synbranchia floridana (2)..... dusky pipefish
 Stellifer lanceolatus (4)..... star drum
 Polydactylus octonemus..... atlantic threadfin (11)
 Heterichthys americanus..... southern kingfish (1)
 Membras martinica..... rough silverside (8)
 Lachon rhomboides..... pinfish (1)
 Hemirhamphus intermedius..... scaled sardine (1)
 Brachycephalus pinnatus..... gulf menhaden (1)
 Anchoa hepsetus quadricellata..... oscillated flounder (1)
 Species collected:
 Habitat: Saltwater off of shoreline
 7.5 minute quadrangle names: 2709V T-2
 Nueces County, TX.
 812 Road, 1.10 mi. north of Padre Island (Gulf of Mexico), Texas
 North Beach Mustang Island (seashore)
 22 March, 1984
 Site #8

Collectors: Texas field trip, Spring 1984
 Synbranchia novaeboracensis (14)..... gulf pipefish
 Symphurus plagiatus..... blackback tongue (1)
 Stellifer lanceolatus..... star drum (7)
 Pseudocaranx georgiana..... black drum (2)
 Paralichthys albigutta..... gulf flounder (2)
 Menidia menidia..... tidewater silverside (4)
 Lachon rhomboides..... pinfish (1)
 Labrisomus xanthurus..... hairy denny (2)
 Fundulus similis..... longnose killifish (2)
 Fundulus heteroclitus..... gulf killifish (9)
 Gynostichus nelsoni..... spotted sea trout (7)
 Gyrinocheilus aethiops..... sheepshead minnow (1)
 Brachycephalus pinnatus..... gulf menhaden (8)
 Anchoa mitchilli..... bay anchovy (7)
 Species collected:
 Habitat: Saltwater Bay
 7.5 minute quadrangle names: 2809V A1
 Aransas County, TX.
 Hwy. 358, 3.2 km. north of Fulton, Texas
 Aransas Bay (southeast side of overpass)
 21 March, 1984
 Site #7

Collectors: Texas field trip, Spring 1984
 Stellifer lanceolatus..... star drum (32)
 Sciaenops ocellatus..... red drum (9)
 Pseudocaranx georgiana..... black drum (35)
 Paralichthys albigutta..... gulf flounder (8)
 Fundulus heteroclitus..... white mullet (8)
 Fundulus heteroclitus..... striped mullet (1)
 Membras martinica..... rough silverside (13)
 Lachon rhomboides..... pinfish (7)
 Species collected (cont.):
 Hopper's Landing

Site #13

22 March, 1994

Adolf Thoame Jr. County Park

Hwy 292 South

Aransas County, Texas

7.5 minute quadrangle names: 28097 A-2

Habitat: Backwater lagoon

Species collected:

Arius felis.....hardhead catfish (1)

Lepisosteus spatula.....alligator gar (1)

Collectors: Texas field trip, Spring 1994

Site #9

24 March, 1994

Brazos Island

Hwy 4. 3.2 km. north of Boca Chica, Texas

Rio Grande north side meets Gulf of Mexico

Cameron County, TX.

7.5 minute quadrangle names: 25097 H-2

Habitat: Saltwater shoreline

Species collected:

Anchoa cubana.....cuban anchovy (1)

Anchoa mitchilli.....bay anchovy (2)

Citharichthys spilopterus.....bay whiff (15)

Gobionellus shufeldti.....freshwater goby (13)

Herengula jaguana.....scaled sardine (1)

Menidia peninsulæ.....tidewater silverside (8)

Pogonias cromis.....black drum (1)

Polydactylus octonemus.....atlantic threadfin (7)

Sardinella aurita.....spanish sardine (3)

Syngnathus louisianæ.....chain pipefish (1)

Collectors: Texas field trip, Spring 1994

Site #10

25 March, 1994

Lagoona Madre

Hwy 100 West. 1/10 mi. north of South Padre City

Cameron County, TX.

7.5 minute quadrangle names: 26097 A-3

Habitat: Backwater lagoon

Species collected:

Bathygobius soporator.....frillfin goby (3)

Fundulus similis.....longnose killifish (3)

Gobiosoma bosc.....naked goby (1)

Gobiosoma robustum.....code goby (3)

Hippocampus erectus.....lined seahorse (2)

Hippocampus zosterae.....dwarf seahorse (1)

Lucania parva.....rainwater killifish (9)

Menidia peninsulæ.....tidewater silverside (2)

Mugil cephalus.....striped mullet (1)

Peprilus triacanthus.....butterfish (12)

Sciaenops ocellatus.....red drum (4)

Collectors: Texas field trip, Spring 1994

Site #10
 23 March, 1984
 Lagoon Madre
 Hwy 100 West, 1410 mi. north of South Padre City
 Cameron County, TX.
 7.5 minute quadrangle names: 28097 A-8
 Habitat: Backwater lagoon
 Species collected:
Bathypagrus scolopax (3)
Bugulus similis (3)
Gobiosoma roseum (1)
Gobiosoma robustum (3)
Hippocampus erectus (2)
Hippocampus zosterae (1)
Isoania bryana (9)
Menidia menidia (2)
Mullus cephalus (1)
Parupeneus triacanthus (12)
Sciaenops ocellatus (4)
 Collectors: Texas field trip, Spring 1984

Site #9
 24 March, 1984
 Brazos Island
 Hwy 4, 8.2 km. north of Boca Chica, Texas
 Rio Grande north side meets Gulf of Mexico
 Cameron County, TX.
 7.5 minute quadrangle names: 28097 H-2
 Habitat: Saltwater shoreline
 Species collected:
Anchoa hepsetus (1)
Anchoa mitchilli (2)
Gibberichthys eplocheus (15)
Gobionellus shufeldti (18)
Herichthys minckleyi (1)
Menidia menidia (3)
Poecilia latipinna (1)
Polydora octonema (7)
Sardinella aurata (3)
Syngnathus louisianae (1)
 Collectors: Texas field trip, Spring 1984

Site #13
 22 March, 1984
 Adolf Thomas Jr. County Park
 Hwy 292 South
 Aransas County, Texas
 7.5 minute quadrangle names: 28097 A-2
 Habitat: Backwater lagoon
 Species collected:
Arria felix (1)
Menidia menidia (1)
 Collectors: Texas field trip, Spring 1984

Site #11

25 March, 1994

South Padre Island (Gulf of Mexico)

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

Cameron County, TX.

7.5 minute quadrangle names: 26097 A-2

Habitat: shoreline

Species collected:

Hippocampus erectus.....lined seahorse (1)

Histrio histrio.....sargassumfish (3)

Urophycis floridana.....southern hake (24)

Collectors: Texas field trip, Spring 1994

Site #12

25 March, 1994

South Padre Island. Southern end of South Padre City, Texas

Hwy 100 west. 1/10 mi. at Park

Cameron County, TX.

7.5 minute quadrangle names: 26097 A-3

Habitat: Jetty's

Species collected:

Dasvatis sabina.....atlantic stingray (1)

Scartella cristata.....molly miller (4)

Collectors: Texas field trip, Spring 1994

Site #14

19 April, 1994

Second Cow Creek

4.8 km. west of Pittsburg, Kansas (under bridge)

Crawford County, KS.

T30S , R24E , Sec. 25

Habitat: Stream

Species collected:

Cyprinella camura.....bluntnose shiner (3)

Cyprinella spiloptera.....spotfin shiner (4)

Ictalurus punctatus.....channel catfish (1)

Labidesthes sicculus.....brook silverside (5)

Lepomis cyanellus.....green sunfish (2)

Lepomis macrochirus.....blue gill (1)

Phenacobius mirabilis.....suckermouth minnow (1)

Pimephales tenellus.....slim minnow (3)

Pomoxis nigromaculatus.....black crappie (5)

Collectors: T. Hayes, J. Doolin, M. Kern

Site #15

19 April, 1994

South of Brush Creek bridge

Hwy 103 west. 1/4 mi. west from Hwy. 69 south.

Cherokee County, Kansas

T31S , R25E , Sec. 30

Habitat: Stream

Species collected:

Etheostoma spectabile.....orangethroat darter

Collectors: T. Hayes, J. Doolin, M. Kern

Site #16

23 April, 1994

Elm Creek Hollister Wildlife Refuge

4.8 km. southwest of Fort Scott, Kansas

Bourbon County, KS.

T26S, R24E , Sec. 18

Habitat: Stream

Species collected:

Lepomis megalotus.....longear sunfish (1)

Lythrurus umbratilis.....redfin shiner (6)

Noturus exilis.....slender madtom (3)

Percina caprodes.....log perch (1)

Collectors: T. Hayes, J. Doolin, M. Kern

Site #17

23 April, 1994

Dry Branch Creek

4.8 km. northwest of Arma, Kansas

Crawford County, KS.

T28S , R25E , Sec. 30

Habitat: Stream

Species collected:

Campostoma anomalum.....central stoneroller (3)

Etheostoma blennioides.....greenside darter (2)

Etheostoma flabellare.....fantail darter (1)

Notemigonus crysoleucas.....golden shiner (2)

Collectors: T. Hayes, J. Doolin, M. Kern

Site #16
23 April, 1994
Elm Creek Hollister Wildlife Refuge
4.8 km. southwest of Fort Scott, Kansas
Bourbon County, KS.
T282, R24E, Sec. 18
Habitat: Stream
Species collected:

Lepomis microlophus.....longear sunfish (1)
Lythrurus umbratilis.....redfin shiner (6)
Noturus exilis.....slender madtom (8)
Perca carolinensis.....log perch (1)
Collectors: T. Hayes, J. Doolin, M. Kern

Site #17
23 April, 1994
Dry Branch Creek
4.8 km. northwest of Arma, Kansas
Crawford County, KS.
T282, R25E, Sec. 30
Habitat: Stream
Species collected:

Campestris anomalus.....central stoneroller (3)
Etheostoma blennioides.....greenish darter (2)
Etheostoma blennioides.....fantail darter (1)
Notropis crassicauda.....golden shiner (2)
Collectors: T. Hayes, J. Doolin, M. Kern

**TEXAS LISTING
of specimens**

III. List and total number of fish caught in Texas
from 19 March, 1994 to 25 March, 1994

01.	<u>Dasvatis sabina</u>	atlantic stingray	(01)
02.	<u>Lepisosteus oculatus</u>	spotted gar	(01)
03.	<u>Lepisosteus spatula</u>	alligator gar	(01)
04.	<u>Brevoortia patronus</u>	gulf menhaden	(05)
05.	<u>Harengula jaguana</u>	scaled sardine	(01)
06.	<u>Sardinella aurita</u>	spanish sardine	(03)
07.	<u>Anchoa cubana</u>	cuban anchovy	(01)
08.	<u>Anchoa hepsetus</u>	striped anchovy	(25)
09.	<u>Anchoa michilli</u>	bay anchovy	(18)
10.	<u>Cyprinella lutrensis</u>	red shiner	(72)
11.	<u>Cyprinella venusta</u>	blacktail shiner	(17)
12.	<u>Dionda episcopa</u>	roundnose minnow	(08)
13.	<u>Notropis amabilis</u>	Texas shiner	(03)
14.	<u>Notropis oxyrhynchus</u>	sharpnose shiner	(02)
15.	<u>Notropis shumardi</u>	silverband shiner	(22)
16.	<u>Pimephales vigilax</u>	bullhead minnow	(48)
17.	<u>Carpiodes carpio</u>	river carpsucker	(01)
18.	<u>Erimyzon oblongus</u>	creek chubsucker	(01)
19.	<u>Ictalurus punctatus</u>	channle catfish	(02)
20.	<u>Arius felis</u>	hardhead catfish	(01)
21.	<u>Esox americanus americanus</u> ...	redfin pickerel	(01)
22.	<u>Urophycis floridana</u>	southern hake	(27)
23.	<u>Histrio histrio</u>	sargassumfish	(03)
24.	<u>Cyprinodon variegatus</u>	sheepshead minnow	(05)
25.	<u>Fundulus heteroclitus</u>	gulf killifish	(10)
26.	<u>Fundulus notatus</u>	blackstripe topminnow	(01)
27.	<u>Fundulus olivaceus</u>	blackspotted topminnow	(01)
28.	<u>Fundulus similis</u>	longnose killifish	(05)
29.	<u>Lucania parva</u>	rainwater killifish	(09)
30.	<u>Gambusia affinis</u>	western mosquitofish	(14)
31.	<u>Labidesthes sicculus</u>	brook silverside	(02)
32.	<u>Membras martinica</u>	rough silverside	(18)
33.	<u>Menidia peninsulae</u>	tidewater silverside	(14)
34.	<u>Hippocampus erectus</u>	lined seahorse	(03)
35.	<u>Hippocampus zosterae</u>	dwarf seahorse	(01)
36.	<u>Syngnathus floridae</u>	dusky pipefish	(04)
37.	<u>Syngnathus louisianae</u>	chain pipefish	(01)
38.	<u>Syngnathus scovelli</u>	gulf pipefish	(14)
39.	<u>Elassoma zonatum</u>	banded pygmy sunfish	(03)
40.	<u>Lepomis cyanellus</u>	green sunfish	(03)
41.	<u>Lepomis gulosus</u>	warmouth	(01)
42.	<u>Lepomis macrochirus</u>	blue gill	(08)
43.	<u>Lepomis marginatus</u>	dollar sunfish	(15)
44.	<u>Lepomis microlophus</u>	redeer sunfish	(08)
45.	<u>Lepomis punctatus</u>	spotted sunfish	(01)
46.	<u>Pomoxis annularis</u>	white crappie	(01)
47.	<u>Etheostoma fusiforme</u>	swamp darter	(01)
48.	<u>Percina sciera</u>	dusky darter	(01)
49.	<u>Logodon rhomboides</u>	pinfish	(09)
50.	<u>Cynoscion nebulosus</u>	spotted sea trout	(07)
51.	<u>Menticirrhus americanus</u>	southern kingfish	(01)

111. List and total number of fish caught in Texas
from 18 March, 1934 to 25 March, 1934

01.	Basileichthys aethiops	(01)
02.	Leptocottus armatus	(01)
03.	Leptocottus armatus	(01)
04.	Micropterus salmoides	(03)
05.	Haremsia lachrymans	(01)
06.	Sardinella sarda	(03)
07.	Anchoa hepsetus	(01)
08.	Anchoa hepsetus	(23)
09.	Anchoa hepsetus	(18)
10.	Gymnallia lutrensis	(72)
11.	Gymnallia venusta	(17)
12.	Rivulus marmoratus	(03)
13.	Notropis anabalis	(03)
14.	Notropis oxyrinchus	(02)
15.	Notropis shumardi	(22)
16.	Limnethes virens	(48)
17.	Carpiodes carpio	(01)
18.	Limnysom obovatus	(01)
19.	Leiurus punctatus	(02)
20.	Arius felis	(01)
21.	Esox americanus americanus	(01)
22.	Glyptothorax floridana	(27)
23.	Heterostichus rostratus	(03)
24.	Gyrinocheilus aethiops	(05)
25.	Fundulus heteroclitus	(10)
26.	Fundulus heteroclitus	(01)
27.	Fundulus olivaceus	(01)
28.	Fundulus similis	(03)
29.	Lucania parva	(03)
30.	Gambusia affinis	(14)
31.	Leiostichus xanthurus	(03)
32.	Membras martinica	(18)
33.	Herichthys minckleyi	(14)
34.	Hypoclinemus erectus	(03)
35.	Hypoclinemus erectus	(01)
36.	Gyrinocheilus aethiops	(04)
37.	Gyrinocheilus aethiops	(01)
38.	Gyrinocheilus aethiops	(14)
39.	Liostoma xanthurus	(03)
40.	Lepomis cyanellus	(03)
41.	Lepomis microlophus	(01)
42.	Lepomis macrochirus	(03)
43.	Lepomis macrochirus	(18)
44.	Lepomis microlophus	(03)
45.	Lepomis punctatus	(01)
46.	Pomoxis annularis	(01)
47.	Heterostichus rostratus	(01)
48.	Perca solis	(01)
49.	Loachichthys minckleyi	(03)
50.	Gyrinocheilus aethiops	(07)
51.	Menidia menidia	(01)

Texas fish (cont.)

52.	<u>Pogonia cromis</u>	black drum	(38)
53.	<u>Sciaenops ocellatus</u>	red drum	(13)
54.	<u>Stellifer lanceolatus</u>	star drum	(43)
55.	<u>Mugil cephalus</u>	striped mullet	(02)
56.	<u>Mugil curema</u>	white mullet	(08)
57.	<u>Polydactylus octonemus</u>	atlantic threadfin	(18)
58.	<u>Labrisomus nuchipinnus</u>	hairy blenny	(02)
59.	<u>Scartella cristata</u>	molly miller	(04)
60.	<u>Bathygobius soporator</u>	frillfin goby	(04)
61.	<u>Gobionellus shufeldti</u>	freshwater goby	(13)
62.	<u>Gobiosoma bosc</u>	naked goby	(04)
63.	<u>Gobiosoma robustum</u>	code goby	(03)
64.	<u>Peprilus triacanthus</u>	butterfish	(17)
65.	<u>Ancyllopsetta quadrocellata</u>	ocellated flounder	(01)
66.	<u>Citharichthys spilopterus</u>	bay whiff	(15)
67.	<u>Paralichthys albigutta</u>	gulf flounder	(11)
68.	<u>Symphurus plagiusa</u>	blackcheek tongue	(01)

Texas fish (cont.)

58.	<i>Symphysus maculatus</i>blackcheek tongue	(01)
57.	<i>Paralichthys albigutta</i>gulf flounder	(11)
56.	<i>Citharichthys spilopterus</i>bay whitt	(15)
55.	<i>Acanthopsetta quadricellata</i>ocellated flounder	(01)
54.	<i>Paralichthys trichacanthus</i>butterfish	(17)
53.	<i>Gobiosoma robustum</i>code goby	(03)
52.	<i>Gobiosoma bosc</i>naked goby	(04)
51.	<i>Gobionellus shufeldti</i>freshwater goby	(13)
50.	<i>Notivoscopus scoropator</i>frillfin goby	(04)
59.	<i>Scartella cristata</i>molly miller	(04)
58.	<i>Labidomus nuchipinnus</i>hairy blenny	(02)
57.	<i>Polydactylus octonemus</i>atlantic threadfin	(18)
56.	<i>Mullus curmea</i>white mullet	(08)
55.	<i>Mullus cephalus</i>striped mullet	(02)
54.	<i>Stellifer lanceolatus</i>star drum	(43)
53.	<i>Sciaenops ocellatus</i>red drum	(13)
52.	<i>Pogonia cromis</i>black drum	(38)

**KANSAS LISTING
of specimens**

List and total number of fish caught in Kansas
from 19 April, 1994 to 23 April, 1994

01.	<u>Campostoma anomalum</u>	central stoneroller	(03)
02.	<u>Cyprinella camura</u>	bluntface shiner	(03)
03.	<u>Cyprinella spiloptera</u>	spotfin shiner	(04)
04.	<u>Lythrurus umbratilis</u>	redfin shiner	(06)
05.	<u>Notemigonus crysoleucas</u>	golden shiner	(02)
06.	<u>Phenacobius mirabilis</u>	suckermouth minnow	(01)
07.	<u>Pimephales tenellus</u>	slim minnow	(03)
08.	<u>Ictalurus punctatus</u>	channel catfish	(01)
09.	<u>Noturus exilis</u>	slender madtom	(03)
10.	<u>Labidesthes sicculus</u>	brook silverside	(05)
11.	<u>Etheostoma blenniodes</u>	greenside darter	(02)
12.	<u>Etheostoma flabellare</u>	fantail darter	(01)
13.	<u>Etheostoma spectabile</u>	orangethroat darter	(06)
14.	<u>Percina caprodes</u>	log perch	(01)
15.	<u>Lepomis megalotus</u>	longear sunfish	(01)
16.	<u>Pomoxis nigromaculatus</u>	black crappie	(05)
17.	<u>Lepomis macrochirus</u>	blue gill	(01)
18.	<u>Lepomis cyanellus</u>	green sunfish	(02)

List and total number of fish caught in Kansas
from 13 April, 1934 to 23 April, 1934

01.	<i>Campestris anous</i>	(03)
02.	<i>Cyprinella carpio</i>	(03)
03.	<i>Cyprinella spiloptera</i>	(04)
04.	<i>Lythrurus umbratilis</i>	(00)
05.	<i>Notemigonus crysoleucas</i>	(02)
06.	<i>Phenacodus mirabilis</i>	(01)
07.	<i>Rimephales tenuis</i>	(03)
08.	<i>Lotulus punctatus</i>	(01)
09.	<i>Noturus exilis</i>	(03)
10.	<i>Labeotus siccus</i>	(03)
11.	<i>Rheostoma blennioides</i>	(02)
12.	<i>Rheostoma flabellare</i>	(01)
13.	<i>Rheostoma apertum</i>	(06)
14.	<i>Perca carpio</i>	(01)
15.	<i>Lepomis macrochirus</i>	(01)
16.	<i>Pomoxis nigromaculatus</i>	(03)
17.	<i>Lepomis macrochirus</i>	(01)
18.	<i>Lepomis cyanellus</i>	(02)

**TEXAS LOCATION
of specimens**

IV. A list of where specimens are located.

Texas specimens begin:

Jar #1

Cyprinella lutrensis.....red shiner
Pimephales vigilax.....bullhead minnow

Jar #2

Elassoma zonatum.....banded pygmy sunfish
Gambusia affinis.....western mosquitofish
Lepomis gulosus.....warmouth
Lepomis microlophus.....redeer sunfish
Lepomis marginatus.....dollar sunfish
Pomoxis annularis.....white crappie

Jar #3

Erimyzon oblongus.....creek chubsucker
Esox americanus americanus...redfin pickerel
Estheostoma fusiforme.....swamp darter
Notropis amabilis.....Texas shiner

Jar #4

Percina sciera.....dusky darter (photo)

Jar #5

Carpiodes carpio.....river carpsucker (photo)
Cyprinella venusta.....blacktail shiner
Dionda episcopa.....roundnose minnow
Fundulus notatus.....blackstripe topminnow
Fundulus olivaceus.....blackspotted topminnow (photo)
Ictalurus punctatus.....channel catfish (photo)
Lepomis punctatus.....spotted sunfish
Notropis shumardi.....silverband shiner
Notropis oxyrhynchus.....sharpnose shiner
Pimephales vigilax.....bullhead minnow

Jar #6

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

A list of where specimens are located (cont.)

Texas specimens continued:

Jar #7

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

Jar #8

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

Jar #9

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

Jar #10

<u>Gobiosoma robustum</u>	code goby	(photo)
<u>Hippocampus erectus</u>	lined seahorse	(photo)
<u>Hippocampus zosterae</u>	dwarf seahorse	
<u>Lucania parva</u>	rainwater killifish	
<u>Peprilus triacanthus</u>	butterfish	(photo)

Jar #11

<u>Histrio histrio</u>	sargassumfish	(photo)
<u>Urophycis floridana</u>	southern hake	

Jar #12

<u>Dasvatis sabina</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

collected on Texas field trip, Spring 1994

<u>Lepisosteus oculatus</u>	spotted gar	
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<u>Lepisosteus spatula</u>	alligator gar	
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Texas specimens end: (66)

**KANSAS LOCATION
of specimens**

A list of where specimens are located (cont.)

Kansas specimens begin:

Jar #14 Hayes

Campostoma anomalum.....central stoneroller
Cyprinella camura.....bluntnose shiner
Cyprinella spiloptera.....spotfin shiner
Etheostoma blennioides.....greenside darter
Etheostoma spectabile.....orangethroat darter
Labidesthes sicculus.....brook silverside
Lepomis megalotus.....longear sunfish
Lythrurus umbratilis.....redfin shiner
Noturus exilis.....slender madtom
Notemigonus crysoleucas.....golden shiner
Pimephales tenellus.....slim minnow
Pomoxis nigromaculatus.....black crappie

Jar #14 Doolin

Etheostoma flabellare.....fantail darter
Lepomis cyanellus.....green sunfish
Phenacobius mirabilis.....suckermouth minnow

Jar #14 Kern

Lepomis macrochirus.....blue gill
Percina caprodes.....log perch

Kansas specimens end: (17)

Texas specimens.....(66)

Kansas specimens.....(17)

Total number of specimens equals (83)

PHOTOGRAPHS



3/20/94

Navasota River

Hwy 795, 5 mi. south of Marquez, TX.

T , R , Section

Leon County, TX.

Habitat: North side stream bank

Species Collected: Percina sciera (Dusky darter) (1)

Collectors: Texas field trip

Percina sciera (dusky darter)
20 March, 1994
Navasota River (north-side bank)
8 km. south of Marquez, TX.
Leon County
Refer to Site #4

Refer to Site #4
Leon County
8 km. south of Marquez, TX.
Navasota River (north-side bank)
20 March, 1994
Percina sciera (dusky darter)



River Sucker

< > 04 21 00 NMMN+12 929

Carpiodes carpio (river carpsucker)
20 March, 1994
Little Brazos River
9.6 km. southwest of Bryan, TX
Brazos County, Texas
Refer to Site #5

Carpiodes carpio (river carpenter)
20 March, 1984
Little Brazos River
9.6 km. southwest of Bryan, TX
Brazos County, Texas
Refer to Site #5



Black Spotted top minnow

Fundulus olivaceus (blackspotted topminnow)
20 March, 1994
Little Brazos River
9.6 km. southwest of Bryan, TX
Brazos County, Texas
Refer to Site #5

Refer to Site #5
Brazos County, Texas
8.6 km. southwest of Bryan, TX
Little Brazos River
20 March, 1994
Endulus olivaceus (blackspotted topminnow)



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CHANNEL CATFISH
TX. TRIP 1994

Ictalurus punctatus (channel catfish)
20 March, 1994
Little Brazos River
9.6 km. southwest of Bryan, TX
Brazos County, Texas
Refer to Site #5

Refer to Site #5
Brazos County, Texas
8.6 km. southwest of Bryan, TX
Little Brazos River
30 March, 1994
Lotulynus kneri (channel catfish)



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T , R , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Anchoa mitchilli (Bay anchovy) (7)

Collectors: Texas field trip

Anchoa mitchilli (bay anchovy)
21 March, 1994
Hopper's Landing
6.4 km north of Aransas National Wildlife Refuge
Refugio County, Texas
Refer to Site #6

Refer to Site #6
Refugio County, Texas
6.4 km north of Aransas National Wildlife Refuge
Hopper's Landing
21 March, 1994
Anchoa mitchilli (bay anchovy)



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T , R , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Cyprinodon variegatus (Sheepshead)

Collectors: Texas field trip

Sheepshead minnow

Cyprinodon variegatus (sheepshead minnow)

21 March, 1994

Hopper's Landing

6.4 km north of Aransas National Wildlife Refuge

Refugio County, Texas

Refer to Site #6

Refer to Site #6
Refugio County, Texas
6.4 km north of Aransas National Wildlife Refuge
Hopper's Landing
21 March, 1984
Cyprinodon variegatus (sheepshead minnow)



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T , R , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Fundulus grandis (Gulf killifish)

Collectors: Texas field trip

Fundulus heteroclitus (gulf killifish)
21 March, 1994
Hopper's Landing
6.4 km north of Aransas National Wildlife Refuge
Refugio County, Texas
Refer to Site #6

Refer to Site #8
Refugio County, Texas
8.4 km north of Aransas National Wildlife Refuge
Hobbes Landing
21 March, 1984
Phodopus heteroclitus (Gull Killifish)



3/22/94

North Beach Mustang Island

1/10 mi. north of Padre Island

off of P22 Road

T , R , Section

Nueces County, TX.

Habitat: Salt water gulf

Species Collected: Lagodon rhomboides (Pinfish)

Collectors: Texas field trip

Lagodon rhomboides (pinfish)

21 March, 1994

Hopper's Landing

6.4 km north of Aransas National Wildlife Refuge

Refugio County, Texas

Refer to Site #6

Laredo rhomboides (pinfish)
21 March, 1994
Hopper's Landing
6.4 km north of Aransas National Wildlife Refuge
Refugio County, Texas
Refer to Site #6



Striped mullet

Mugil cephalus (striped mullet)

21 March, 1994

Hopper's Landing

6.4 km north of Aransas National Wildlife Refuge

Refugio County, Texas

Refer to Site #6

Refer to Site #8
Refugio County, Texas
6.4 km north of Aransas National Wildlife Refuge
Hopper's Landing
21 March, 1994
Mullis cephalus (striped mullet)



Ocellated

Flounder

Gulf Flounder



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T. , R. , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Paralichthys albigutta (Gulf flounder) (2)

Collectors: Texas field trip

Paralichthys albigutta (gulf flounder)
21 March, 1994
Hopper's Landing
6.4 km north of Aransas National Wildlife Refuge
Refugio County, Texas
Refer to Site #6

Refer to Site #6
Refugio County, Texas
6.4 km north of Aransas National Wildlife Refuge
Hopper's Landing
21 March, 1994
Paralichthys albigutta (gulf flounder)



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T , R , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Pogonias cromis (Black drum)

Collectors: Texas field trip

Pogonias cromis (black drum)

21 March, 1994

Hopper's Landing

6.4 km north of Aransas National Wildlife Refuge

Refugio County, Texas

Refer to Site #6

Refer to Site #6
Refugio County, Texas
6.4 km north of Aransas National Wildlife Refuge
Hopper's Landing
21 March, 1994
Poecetes graminea (black drum)



3/25/94

Lagoona Madre

1/10 mi. north of South Padre City
west side of Hwy. 100

T , R , Section

Cameron County, TX.

Habitat: Salt water gulf

Species Collected: Sciaenaps ocellata (Red drum) (4)

Collectors: Texas field trip

Sciaenops ocellatus (red drum)

21 March, 1994

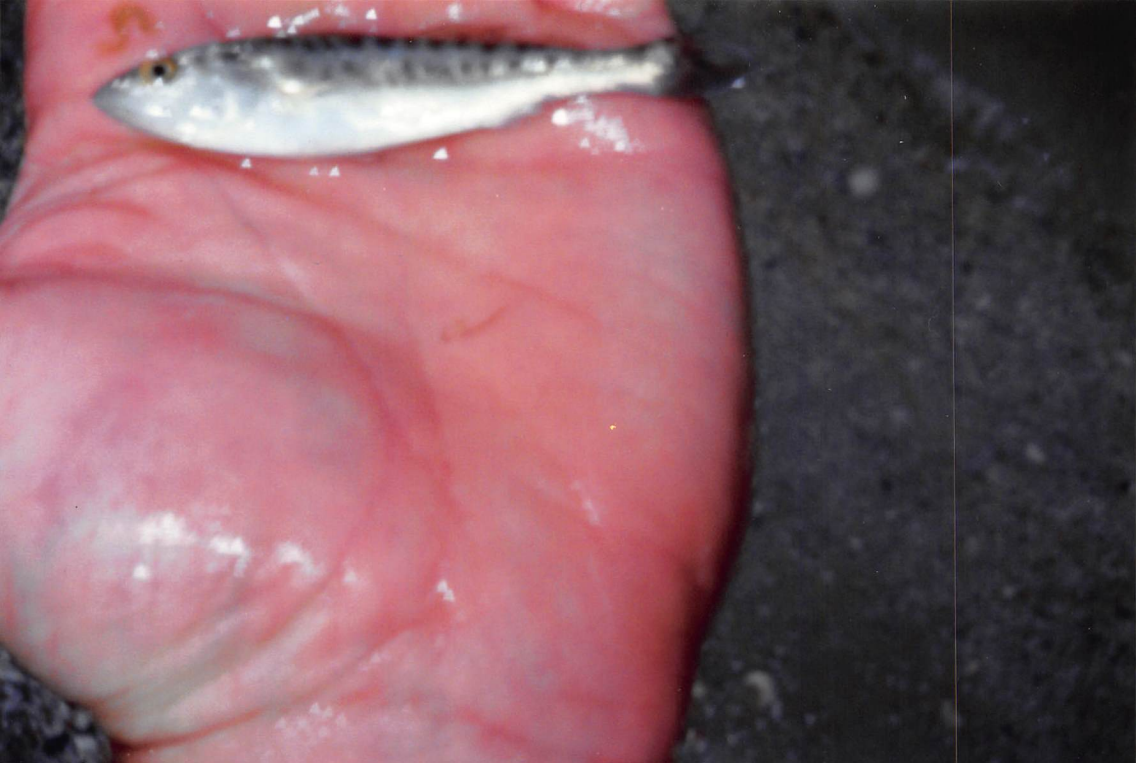
Hopper's Landing

6.4 km north of Aransas National Wildlife Refuge

Refugio County, Texas

Refer to Site #6

Refer to Site #6
Refugio County, Texas
6.4 km north of Aransas National Wildlife Refuge
Hopper's Landing
21 March, 1994
Sciaenops ocellatus (red drum)



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T , R , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Cynoscion nebulosus (Spotted sea trout) (7)

Collectors: Texas field trip

Cynoscion nebulosus (spotted sea trout)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7

Gynostichus nebulosus (spotted sea trout)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7



3/21/94

Aransas Bay

Hwy 355, 2 mi. north of Fulton, TX.

SE side of overpass

T , R , Section

Aransas County, TX.

Habitat: Salt Water Bay

Species Collected: Fundulus similis (Longnose killifish)

Collectors: Texas field trip

Fundulus similis (longnose killifish)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7

Emdulus similis (longnose killifish)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7



Black catfish
Tonguefish

Symphurus plagiusa (blackcheek tongue)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7

Symphurus plagiatus (blackcheek tongue)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7



3/25/94

South Padre Island

Gulf of Mexico

3 mi. north of South Padre City on east side of Hwy 100

T , R , Section

Cameron County, TX.

Habitat: Salt water gulf

Species Collected: Syngnathus pelagicus (~~Sargassum pipefish~~) (3)

Collectors: Texas field trip

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PIPEFISH

TEXAS TRIP 1994

Syngnathus scovelli (gulf pipefish)

21 March, 1994

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7

Synbranchius acoveilli (gulf pipefish)

21 March, 1984

Aransas Bay

3.2 km. north of Fulton, TX.

Aransas County, Texas

Refer to Site #7



3/22/94

North Beach Mustang Island

1/10 mi. north of Padre Island

off of P22 Road

T , R , Section

Nueces County, TX.

Habitat: Salt water gulf

Species Collected: Membras martinica (Rough silver

Collectors: Texas field trip

Membras martinica (rough silverside)

22 March, 1994

North Beach Mustang Island

1/10 mi. north of Padre Island

Gulf of Mexico

Neuces County, Texas

Refer to Site #8

Membras martinica (rough silver-side)

22 March, 1984

North Beach Mustang Island

1/10 mi. north of Padre Island

Gulf of Mexico

Nueces County, Texas

Refer to Site #8



Bay with ff

Citharichthys spilopterus (bay whiff)

24 March, 1994

Brazos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9

Citharichthys spilopterus (bay whiff)

24 March, 1994

Brazos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9



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FRESH FIN Goby

FRESH WATER Goby

Gobionellus shufeldti (freshwater goby)
24 March, 1994
Brazos Island
3.2 km. north of Boca Chica, TX.
Cameron County, Texas
Refer to Site #9

Gobionellus shufeldti (freshwater goby)

24 March, 1994

Braxos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9



Spanish Sardine

Sardinella aurita (spanish sardine)

24 March, 1994

Brazos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9

Sardinella aurita (spanish sardine)

24 March, 1994

Brazos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9



CHAIN PIPEFISH

Syngnathus louisianae (chain pipefish)

24 March, 1994

Brazos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9

Synbranchia louisianae (chain pipefish)

24 March, 1984

Brazos Island

3.2 km. north of Boca Chica, TX.

Cameron County, Texas

Refer to Site #9



3/25/94

Lagoona Madre

1/10 mi. north of South Padre City

west side of Hwy. 100

T , R , Section

Cameron County, TX.

Habitat: Salt water gulf

Species Collected: Gibbosoma robustum (Code Goby) (2)

Collectors: Texas field trip



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Gobiosoma robustum (code goby)
25 March, 1994
Lagoona Madre
1/10 mi. north of South Padre City
Cameron County, Texas
Refer to Site #10

Gobiosoma robustum (code copy)

25 March, 1994

Lagoona Madre

1/10 mi. north of South Padre City

Cameron County, Texas

Refer to Size #10



3/25/94

South Padre Island

Gulf of Mexico

3 mi. north of South Padre City on east side of H

T , R , Section

Cameron County, TX.

Habitat: Salt water gulf

Species Collected: Hippcampus erectus (Lined seah

Collectors: Texas field trip

Hippocampus erectus (lined seahorse)

25 March, 1994

Lagoona Madre

1/10 mi. north of South Padre City

Cameron County, Texas

Refer to Site #10

Hippocampus erectus (lined seahorse)

25 March, 1994

Lagoona Madre

1\10 mi. north of South Padre City

Cameron County, Texas

Refer to Site #10



3/25/94

Lagoona Madre

1/10 mi. north of South Padre City

west side of Hwy. 100

T , R , Section

Cameron County, TX.

Habitat: Salt water gulf

Species Collected: Peprilus triacantles (Butterfish)

Collectors: Texas field trip

Peprilus triacanthus (butterfish)
25 March, 1994
Lagoona Madre
1/10 mi. north of South Padre City
Cameron County, Texas
Refer to Site #10

Pebrinus triacanthus (butterfish)
25 March, 1994
Lagoona Madre
1\10 mi. north of South Padre City
Cameron County, Texas
Refer to Site #10



3/25/94

South Padre Island

Gulf of Mexico

3 mi. north of South Padre City on east side of H

T , R , Section

Cameron County, TX.

Habitat: Salt water gulf

Species Collected: Histrio histrio (Sargassumfish)

Collectors: Texas field trip

Histrio histrio (sargassumfish)

25 March, 1994

South Padre Island

Gulf of Mexico

Cameron County, Texas

Refer to Site #11

Historic District (sarsassumfish)

25 March, 1994

South Padre Island

Gulf of Mexico

Cameron County, Texas

Refer to Site #11

REFERENCES

FIELD NOTEBOOK REFERENCES

*Texas location were obtained by
U.S. Geological Survey
Texas Index
7.5 minute quadrangle names
I 19.41/6-3:T31

*Texas field trip, Spring 1994
Consisted of the following students
enrolled in Ichthyology 533

Dan Albertini
Jack BoHannan
Diane Borovetz
Jamie Doolin
Thomas Hayes
Doug Jagels
Matt Kern
Peyton Lewman
Brent Luedke
John Murray
Ron Payne
Cris Peterson
Aaron Schnurbusch
Andrea Taylor
Dan Van Leeuwen
Liz Hicks
George Thomas

*All scientific names and common names were cited from:
Common and Scientific Names of Fishes
from the United States to Canada
American Fisheries Society
Special Publication 20
Fifth Edition
1991

FIELD NOTEBOOK REFERENCES

*Texas location were obtained by
U.S. Geological Survey
Texas Index
7.5 minute quadrangle names
I 19.418-8:781

*Texas field trip, Spring 1984
Consisted of the following students
enrolled in Ichthyology 533
Dan Albertini
Jack Bohannon
Diane Borovetz
Jamie Doolin
Thomas Hayes
Doug Jaseja
Matt Kern
Peyton Lewman
Brent Luedke
John Murray
Ron Payne
Cris Peterson
Aaron Schnurbech
Andrea Taylor
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Liz Hicks
George Thomas

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from the United States to Canada
American Fisheries Society
Special Publication 30
Fifth Edition
1991



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Texas field trip, Spring 1994

Texas field trip, Spring 1934

the end



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