## **DEEP SOUTH, DEEP-FREEZE KILLIES** by B. G. Granier, Baker, Louisiana

On October 3, 1993 at 5:00 a.m., I met Dr. Mike Fitzsimons and his "Ichthyology Class of '93) behind Foster Hall, Museum of Natural Science, Louisiana State University, Baton Rouge, Louisiana. He had invited me along for a class field-collection trip. Destination: the brackish and salt marshes of the Louisiana coastal plain, at the southern terminus of La. Highway 1 at Grand Isle, La.

To those who know (or know of) Dr. Fitzsimons, no introduction is necessary. For those not familiar with his work, let me say that he is the foremost authority in the behavioral science of the endemic freshwater species (four gobies and one electrid) of the Hawaiian Islands. The primary focus of his studies is to ensure that these species are given every opportunity to survive the constant and unrelenting pressures on the native resources. He has lately been instrumental in evaluating the effects of Hurricane Iniki on the island of Kauai and the impact of the storm on the habit of the above-mentioned goby species.

Now on with our story! After Mike insured that the 14 students were comfortably seated (or reclining at this early hour) in the students' van provided by LSU for the trip, we were off for the hunt (or the fishing, as it were)! Taking Interstate 10 to New Orleans, then Hwy 90 west to its intersection with Hwy 308, we proceeded south along Bayou Lafourche towards Golden Meadow, La. After about a 2%-hour drive, we stopped at the bakery in Golden Meadow to refresh ourselves with the coffee and baked goods. Then we were off again, proceeding south on La. Hwy 1 to our collecting sites.

At about 8:20 a.m., we reached the first collecting site of the trip. Graduate student Tom Blanchard took the first seine and proceeded to get some students wet! The air temperature was about 56°F, and the water felt twice as cold. Here, the first specimens taken consisted mainly of Poecilia latipinna, Cyprinodon variegatus, 2 individuals of Adinia xenica, and a few other species. After storing the gear in Mike's Dodge Ram Charger, we headed down Hwy 1 to the next collecting While Mike and the class were busy with the seines and site. collecting saltwater gar, gobies, pipefish, silversides, Spotted Weakfish, juvenile barracuda, etc., I spotted an abandoned "chest-type" freezer liner standing erect in the marsh after being dumped there by persons unknown. It was filled with water to an approximate height of 32" above the water level of the surrounding marsh. On a whim, I decided to see if a dip net would produce any species living therein. A few swirls of the net captured three Fundulus. After a quick discussion of the find, we supposed that they were F. grandis, but would look at them again in class at LSU.

Order Atheriniformes Family Cyprinodontidae



TX: Dickinson Bayou, near Galveston, ca. 42 mm SL (Jordan and Evermann 1900).

SALTHARSH TOPHIBHOW (Fundulus jentinsi) From Atlas, credited to Jordan & Evermann, 1980

From here, we went to the third collecting site--the eastern end of Grand Isle, La., at the end of La. Hwy 1. At this site, the class collected Atlantic Spadefish, the Threadfin Look-down, filefish, Striped Mullet, Saltwater Catfish, pinfish, two species of silversides, Sandtrout, and various other species. It should be noted here that the species collected represent the year-round population of the Louisiana coastal marshes.

The last stop: Grand Isle State Park, where all could rinse off the sand, eat a quick lunch, reflect on a successful collecting trip, and relax before taking that long drive back to the campus at Baton Rouge. We arrived back at Foster Hall at 5:00 p.m.

About a month later, Mike looked at a Fundulus specimen that was taken from the freezer liner. After a fin-ray and scale count, he determined the fish to be F. jenkinsi.

The fish differs from F. grandis in that the anterior edge of the anal fin is positioned ahead of the anterior edge of the dorsal fin, and the fins are angular instead of rounded--i.e., the posterior rays form a point on both the dorsal and anal fins. The scales of F. jenkinsi are edged with black, giving a cross-hatched appearance to an overall bluish sheen of the scales. When collected, the fish also had a slight orange tint to the dorsal, anal, and caudal fins. Since these fish were collected in the fall, they were probably faded, and would have been even more colorful in the breeding season.

Even though F. jenkinsi have been collected previously in Louisiana, these were the first specimens taken by Dr. Fitzsimons and a class of students in 20 years of collecting in the area!

My thanks and appreciation go to the students and Instructor of Ichthyology, Fall of '93, for allowing me to participate in their pursuit of learning, both in the classroom and in the great Louisiana coastal marshes. ###

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