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First Florida Record of *Taphromysis louisianae* (Crustacea: Mysidacea)

T.L. Hamaker

U.S. Environmental Protection Agency

E. Matthews

U.S. Environmental Protection Agency

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Short Papers and Notes:

**FIRST FLORIDA RECORD OF
Taphromysis louisianae
(CRUSTACEA: MYSIDACEA) ¹**

Several thousand mysid shrimp *Taphromysis louisianae* Banner, 1953, were collected in November, 1978 and January, 1979 in the Blackwater River estuary near Milton, Florida. They are the first record of *Taphromysis louisianae* from Florida and constitute an eastward range extension of approximately 550 km.

The mysids were collected in November at two locations. Collection was made with 17 cm x 25 cm hand-held dip nets (mesh size approximately 1 mm). The first site was in Wright Basin, Blackwater River, approximately 3.2 km upstream from the U.S. Highway 90 bridge; depth was less than one meter; salinity, approximately 1 ‰; water temperature, 21°C.; the substratum was mud with much organic detritus covered by algae and emergent plants. The second collection site was downstream between the U.S. Highway 90 bridge and the railroad trestle adjacent to the city of Milton. Salinity was approximately 3 ‰; water temperature, 21.3°C.; the substratum was mud and sand covered by algae. The mysids were collected near the riverbank at a depth of less than one meter. Specimens collected at these locations totalled 500 mysids of both sexes and various stages.

January, 1979 collections were made at the second site of the previous November. Salinity was 2 ‰; water temperature, 13°C.; water depth, less than one meter; the substratum, mud and sand. Approximately 3,000 juvenile *T. louisianae* of a synchronous age group were collected, but sexes were not

discernible due to immaturity.

T. louisianae was described by Banner (1953) from a static, freshwater, roadside ditch near Gueydan, Vermilion Parish, Louisiana. Conte (1972) collected *T. louisianae*, in Texas, from Oyster Lake in 1967, 1968 and 1969 and Alligator Lake in 1967 and 1968. Macklin (1971) (cited by Price, 1976) found *T. louisianae* in the Lavaca River, Texas. *T. louisianae* was also reported from upper Galveston Bay, Texas (Kalke, 1972, cited by Price, 1976).

It appears that *T. louisianae*, which was first collected in freshwater (Banner, 1953), is a brackish water species whose peak abundances occur in the low salinity, brackish-water areas of the estuary. Conte (1972) found that the average salinity in Alligator Lake, Texas during peak sampling abundance of *T. louisianae* was 11.3 ‰, but found no peaks of sampling abundance in Oyster Lake, Texas, an area of "higher salinity". Price (1976) found no specimens of *T. louisianae* in his sampling location near Galveston Island, Texas, where salinities, for the most part, were greater than 15‰. Macklin (1971) and Kalke (1972) (cited by Price, 1976) found *T. louisianae* in areas presumedly of low salinities. Our efforts to collect *T. louisianae* have been successful only in the lower salinity (less than 4 ‰) areas of the Blackwater River estuary.

ACKNOWLEDGMENTS

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¹ Gulf Breeze Contribution Number 393

- species of mysid from Southern Louisiana (Crustacea, Malacostraca). *Tulane Stud. Zool.* 1:3-8.
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- T.L. Hamaker and E. Matthews, *United States Environmental Protection Agency, Environmental Research Laboratory, Sabine Island, Gulf Breeze, FL 32561.*
- A SIMPLE METHOD FOR STAINING THE CENTRA OF TELEOST VERTEBRAE**
- Use of vertebrae to study age and growth of teleost fishes has proved to be a valuable method by several authors (Menon, 1950; Mather and Schuck, 1960; Chadwick, 1976; Berry, Lee and Bertolino, 1977). In the past, processing vertebrae for age analysis has run the gamut from simple cleaning and drying to more complex methods such as with alizarin red S (Galtsoff, 1952). The goal of staining processes is to accentuate the growth "rings" on the centrum surface so that the rings are more visible and easier to count and measure in aging studies.
- To study vertebrae of some marine fishes, I have developed a staining method which may be useful to others sampling fish vertebrae for age and growth analysis.
1. Separate vertebrae (fresh, frozen, or preserved in 5-10% Formalin) from each other and remove the gelatinous material from the centrum. Soaking vertebrae in sodium hypochloride solution (concentration and time dependent on species) will help remove the gelatinous material in difficult to clean vertebrae.
 2. Cover vertebrae with a solution of 0.01% crystal violet (histological grade) in distilled water, stain for 0.2 to 4 hr. depending on size of the vertebrae and the desired stain intensity.
 3. Rinse stained vertebrae in water and air dry. Unpreserved large vertebrae may require preservation in 5% Formalin for 24 hr after staining to prevent decomposition.
 4. Overstained vertebrae can be de-stained with 50% aqueous isopropanol. Centra surfaces after staining and drying with this technique have a satiny purple sheen with very visible rings