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First Gulf of Mexico Coast Record of *Manayunkia speciosa* (Polychaete: Sabellidae)

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**FIRST GULF OF MEXICO COAST
RECORD OF *Manayunkia speciosa*
(POLYCHAETA: SABELLIDAE)**

Five specimens of the minute sabellid polychaete *Manayunkia speciosa* Leidy 1858 were found in Simmon's Bayou near Ocean Springs, MS. Two of the specimens were collected in January and one each in February, March, and April of 1977. The January and March collections were from natural areas of Simmon's Bayou and the February and April collections were from a channelized portion of the bayou. In all cases the substratum was mud with considerable organic detritus and a small amount of sand. The salinity ranged from 0‰ in January and March to 5‰ in April and 11‰ in February. The temperature ranged from 11°C to 25°C. These locations were sampled once or twice a month from July, 1976 to June, 1977 but only these five specimens of *M. speciosa* were found. All five animals were found outside their tubes. These collections are the first record of *Manayunkia speciosa* from the Gulf of Mexico coast and represent a range extension of approximately 1400 kilometers.

Manayunkia speciosa was first reported by Leidy (1858) from the Schuylkill River near Philadelphia, PA. He fully described the species in 1883 and added another location, Egg Harbor River, NJ. The following year Potts (1884) reported additional finds from further up the Schuylkill River. In 1929 Meehan reported *M. speciosa* from Lake Superior and in 1939 Kreeker reported the polychaete, under the name of *M. eriensis*, from Lake Erie. Hartman (1951) suggested that *M. eriensis* and *M. speciosa* were the same and in 1953 Pettibone synonymized them. For many years the Great Lakes and rivers of southeastern Pennsylvania and New Jersey

were the only known range of *Manayunkia speciosa* although Pettibone (1953) suggested that it might be wide spread. The 1960's and '70's brought a spate of new finds in the Great Lakes. These are summarized by Rolan (1974). Hazel and Kelley (1966) found the polychaete in the Sacramento-San Joaquin Delta of California and Hazel (1966) found additional West Coast specimens in Agency Lake, OR. Holmquist (1974) further extended the range of *M. speciosa* to three unnamed fresh water lakes in northern Alaska. Additional Atlantic coastal area finds were reported by Ristich *et al.*, (1977) from the Hudson River and by Crumb (1977) from a tidal section of the Delaware River.

The pattern of widely scattered known locations for *Manayunkia speciosa* is most intriguing. Meehan (1929) suggested that the species may have been introduced to Duluth Harbor on the hulls of ocean going ships that visited there. Hazel (1966) postulated that *M. speciosa* may have been introduced to California in 1874 along with White Catfish (*Ictalurus catus*) from the Schuylkill River. As a matter of record, hatchery raised Striped Bass fry (*Morone saxatilis*) from Chesapeake Bay, the Hudson River, and other areas of the Northeast have been released into Davis Bayou, MS, at a location less than four kilometers from the sites where the *M. speciosa* reported here were found (pers. comm., Thomas McIlwain, Gulf Coast Research Laboratory). While it is possible that the worm was introduced along with these fish, I think that is unlikely. I agree with Light (1969) who suggests that *M. speciosa* and the other North American *Manayunkia*, *M. aestuarina*, have circumarctic and circumboreal distributions and more collecting will turn up additional locations

(See also Holmquist, 1967). Indeed it would seem from known records that *Manayunkia speciosa* can live almost anywhere. It is found in fresh water and in 11‰ salinity, at temperatures from 7.5°C to 31.0°C, attached to hard substrates and in sand, silt, clay, peat and mixed substrates. Perhaps *M. speciosa* escapes notice not only because of its small size but also because of low population densities. Except for Hiltunen (1965), who reported more than 45,000 individuals/m² in the mouth of the Detroit River, most records are based on only a few individuals. Seasonality is another factor which must be considered. Wright (1955) sampled the benthos of western Lake Erie in 1928-30. Most of his samples were collected in June, July, August, or September and he found no *M. speciosa*. Hiltunen (1965) sampled the same area in 1961 and found an incredible population of the polychaete but did not report the season of collection. The specimens reported here were found only from January through April although the area was sampled for an entire year. As more winter collections are made in the brackish water areas of the Gulf Coast the known range of *M. speciosa* will undoubtedly be extended.

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