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Elmer J. Gutherz
National Marine Fisheries Service

Walter R. Nelson
National Marine Fisheries Service

G. Michael Russell
National Marine Fisheries Service

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RANGE EXTENSION OF *Polymixia nobilis* LOWE 1838 (POLYMIXIIDAE) INTO THE NORTHWESTERN GULF OF MEXICO

On May 21, 1984 at NOAA Ship OREGON II station 40999 (27°40.9 N. lat., 94°23.8 W. long., depth 147/157 fathoms) an unidentified fish specimen was captured with bottom-longline fishing gear. The set was made across and down a steep peak that proved to be strewn with large boulders and slab rock when inspected visually by observers aboard the Harbor Branch Foundation's Research Submersible JOHNSON SEA-LINK. The specimen was later determined to be the largest recorded specimen of *Polymixia nobilis* Lowe 1838 and the first occurrence of this species from the Gulf of Mexico (Figure 1). Two additional specimens of *Polymixixia nobillis* have been captured in the northern Gulf of Mexico (NOAA Ship Chapman station 127, 22°41' N. Lat., 94°24' W Long., in 145 fathoms). These specimens were 182 and 415 mm SL and were caught on bottom longlines. The meristics and morphometrics of the large specimen are similar to those reported in this paper. Meristic and morphometric measure-

ments (Table 1) were compared and found to be in general agreement with those recorded by Lachner (1955) and Woods and Sonoda (1973). Some minor differences in pectoral fin ray counts were noted between the Gulf of Mexico specimen and those reported by Woods and Sonoda (1973). When only recording fin elements, rather than differentiating between spines and rays, the disparity between these counts is reduced to an acceptable level. Differences between anal fin ray counts on specimens from Madeira and Cuba were recognized and commented on by Lachner (1955), however the Gulf of Mexico specimen is intermediate in this character. Body depth is somewhat reduced in the Gulf of Mexico specimen, but this may be a function of size as this is the largest specimen recorded.

Additional information on the Gulf of Mexico specimen is as follows: first 3 dorsal spines short, followed by 2 longer spines, all spines increasing in length posteriad; first anal spine very short followed by 3 longer spines; branchiostegal rays 7, main rays 4 followed by 3 rays, which have been modified for barbel support. Features of the dentition, body shape, and profile are similar to literature accounts. Coloration of the

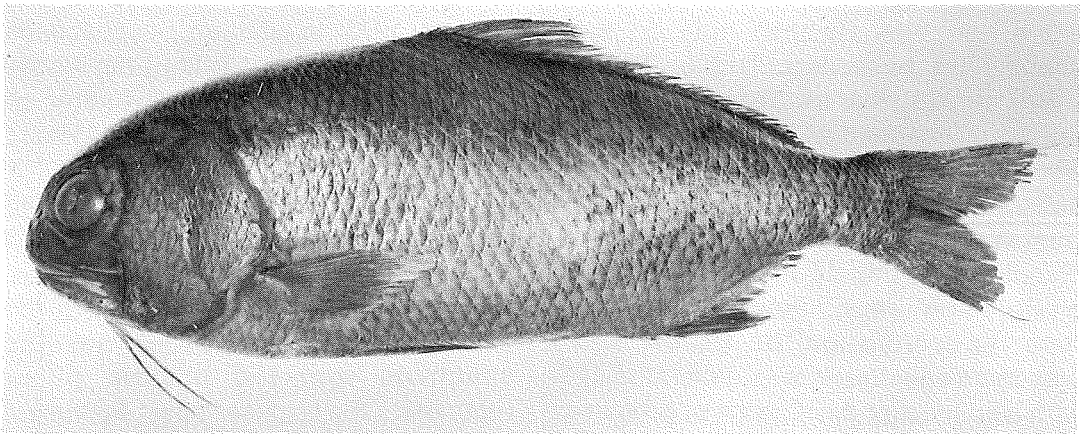


Figure 1. *Polymixia nobilis* captured at NOAA Ship OREGON II station 40999.

Table 1. Meristic and morphometric measurements of the Gulf of Mexico *Polymixia nobilis* Lowe and those reported by Lachner (1955) and Woods and Sonoda (1973). Measurements for Gulf of Mexico specimen recorded in millimeters followed by percent of standard length; measurements of specimens reported by Lachner (1955) and Woods and Sonoda (1973) recorded as percent of standard length.

	Woods and Sonoda (1973)			Lachner (1955)
	Gulf of Mexico UF 40999	West Indies	Madeira	
Number of specimens	1	8	3	
Meristics				
Dorsal fin	V, 35	IV - V, 35-37	IV - V, 35-36	IV - V, 34-37
Anal fin	IV, 16	III - IV, 15-16	IV, 17-18	III - IV, 16-18
Pectoral fin	I, 17	I, i, 14-15	I, i, 14-15	16-18
Pelvic fin	I, 6	I, 6	I, 6	—
Pored lateral line scales	37	34-37	36	32-34
Gill rakers	11 (3-1.7)	10-11	12-13	11-13
Morphometrics				
Standard length	423	—	—	—
Body depth (Greatest)	145 (34.3)	35.6-40.1	36.8-38.2	—
Head length	138 (32.6)	34.0-36.7	32.8	33-37
Snout length	36 (8.5)	6.7-8.6	7.6-7.7	—
Eye diameter	38 (9.0)	9.9-13.3	8.8-10.5	9-13
Interorbital width	34 (8.0)	6.6-9.9	8.2-8.8	—
Upper jaw length	74 (17.5)	18.8-20.6	16.6-17.1	17-18
Barbel length	108 (25.5)	23.2-33.0	31.6	27-35
Caudal peduncle (least depth)	42 (10.0)	11.2-12.0	10.3-11.9	—
Pectoral fin length	77 (18.2)	20.0-22.6	18.3-19.8	18-21
Pelvic fin length	58 (13.7)	13.8-15.3	14.4-15.0	—

freshly caught specimen was striking, with the head and dorsal surface reddish, coloration then lightened and brightened ventrally and posteriorly toward the caudal fin, with the ventral surface having a rosy hue. Reddish tints on the heads have been described by Smith (1949). Three to four rows of scales along the lateral line were an iridescent red between the posterior edge of the opercule and the caudal peduncle (live color notes from Walter R. Nelson). The color faded completely within 15 minutes of being brought on deck. Beyond this the reported coloration of frozen and preserved specimens was quite similar, with a good color description of preserved material provided by Woods and Sonoda (1973).

Polymixia nobilis is easily separated from *P. lowei* Gunther 1859 by its lower gill raker count, 10-13 vs. 16-22, and its higher dorsal soft ray count, 34-37 vs. 27-30, (Lachner, 1955 and Woods and Sonoda, 1973). In addition, our specimen of *P. nobilis* does not exhibit the silvery coloration below the lateral line noted on specimens of *P. lowei* (Lachner, 1955 and Woods and Sonoda, 1973).

Woods and Sonoda (1973) recorded *Polymixia nobilis* from the West Indies area, including the north coast of Cuba, in depths of 195-300 fm and from the eastern Atlantic in 200-300 fm. The specimen reported in this paper represents the largest known *Polymixia nobilis* (SL-423 mm, FL-475 mm, TL 520 mm; weight 2.5 kg) and extends its range

into the northwestern Gulf of Mexico into depths shallower than those previously reported.

The specimen herein reported (UF 40999) is housed at the Florida State Museum, University of Florida in Gainesville, Florida.

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- Elmer J. Gutherz¹, Walter R. Nelson², G. Michael Russell¹, ¹Southeast Fisheries Center, National Marine Fisheries Service, NOAA, Mississippi Laboratories, Pascagoula, Laboratory, 3209 Frederic Street, Pascagoula, Miss. 39568-1207; ²Southeast Fisheries Center, National Marine Fisheries Service, NOAA, Miami Laboratory, 75 Virginia Beach Drive, Miami, Fla. 33149.