92.8; <0.001. Dorsal fin length: 188-227, 205.7; 186-213, 199.4; <0.005. Anal fin length: 203-240, 223.7; 190-228, 214.3; <0.001. Pectoral fin length: 157-182, 168.6; 160-183, 168.6; ns. Pelvic fin length: 128-148, 137.5; 123-146, 131.7; <0.001. The wider body of females is due in part to ovarian enlargement. Despite sharp average differences in measurements between drainages (Table 15), relative sexual differences exhibit inconsequential interdrainage variation (Snelson, 1970:163-4).

Throughout most of the warmer months females may be recognized by their enlarged urogenital papilla, which extends posteriorly to about the anal fin origin. The papilla of males is not enlarged.

*N. roseipinnis* shows significant sexual dimorphism in adult size. Of 112 collections, a male was the largest specimen in 91, a female in 21. This deviates from a hypothesized ratio of 50:50 by a Chi-square value of 43.75, which is highly significant at much less than 0.005. The largest male examined was 53.0 mm SL; the largest female was 50.0 mm SL.

Geographic Variation.—Data available from the three known collections of *N. roseipinnis* from the Yazoo drainage are entered in the Tables. The paucity of material and the widely disjunct nature of the samples preclude any meaningful characterization of the populations in this drainage. Thus the Yazoo population is not considered in the following discussion. In all respects except perhaps body circumference scales and predorsal scale rows (Tables 6 and 7), Yazoo specimens show satisfactory tentative agreement with the Bayou Pierre and Big Black populations.

*N. roseipinnis* shows more geographic variation than any other member of the *roseipinnis* complex. The bulk of this variation fits into one of three patterns: (1) variation slight and random; (2) Mississippi Valley populations differ on average from combined Gulf slope populations, but variation irregular along Gulf slope; (3) variation clinal, with varying degrees of regularity, from east (Mobile Bay) to west (Lake Pontchartrain) to northwest (Bayou Pierre and Big Black).

The following characters fall into pattern 1 above: lateral line scales (Table 5), pectoral fin rays (Table 9), gill rakers (Table 10), predorsal length, prepelvic length, preanal length, head length, postorbital head length, upper jaw length, fleshy orbit length, and anal fin length (overall values shown in Table 14; see Snelson, 1970:table 32 for individual drainage values). Several characters fit into pattern 2; but Mississippi Valley populations average lower than those along the Gulf Coast in only one case, predorsal scale rows (Table 7). In the following characters Mississippi Valley samples average higher than the combined Gulf Coast samples: body circumference scales (Table 6), caudal peduncle scales (Table 8), head depth, snout length, gape width, fleshy interorbital