

"step" between the Gulf Coast and Mississippi Valley is rather imposing. This is especially true when the three differences are considered along with the several minor distinctions of the Mississippi Valley populations.

Confusion is introduced by variation in fin pigmentation (Tables 12 and 13), a character of primary systematic importance in this species complex. Subspecies defined on the basis of fin pigmentation would not correspond to those based primarily on measurements. The two most similar western drainages are not the Bayou Pierre and Big Black, but the Bayou Pierre and Pearl. The Big Black averages somewhat lower than the latter two, but could arbitrarily be included with them without undue stress. This would raise the question of how to treat the Lake Pontchartrain population. Its geographic position makes it illogical to consider it comprised of intergrades between an eastern and western subspecies. To make the eastern subspecies polytopic by including the Pontchartrain population would be equally untenable. If the limits of the western group were again expanded, Lake Pontchartrain might also be included. This would move the dividing line between the eastern and western groups back to St. Louis Bay, two drainages east of where measurements would place it.

Combination of the two character complexes conceivably might produce a western subspecies in the Mississippi Valley and an eastern subspecies in St. Louis Bay through Mobile Bay. The hypothetical intergrades, from the Pearl and Lake Pontchartrain systems, would then be like the western subspecies in fin pigment but would be the terminal elements of an east-west cline in the three differentiating measurements.

Recognition of subspecies hardly seems justified from a pragmatic viewpoint if it does not result in some significant categorization and ordering of variation within the species. This is difficult to accomplish objectively when several important characters vary discordantly. The complications discussed above emphasize that subspecific partitioning of *N. roseipinnis* not only would be an arbitrary process, but also would obscure rather than clarify the interesting east-west clines involved.

DISTRIBUTION AND HABITAT.—Distributional records of *N. roseipinnis* are plotted in Fig. 7. This is a common species in Gulf Coast drainages from Mobile Bay west through Lake Pontchartrain. All previous records of *N. roseipinnis* from drainages east of Mobile Bay were based on *N. atrapiculus*. Howell's (1957) single record of *N. bellus* from the Perdido River system (UAIC 122, 2 juveniles; Ala., Escambia Co., stream 1 mi. from Baldwin Co. line on Rt. 31; 6 June 1951) probably was based on *N. roseipinnis* or *N. atrapiculus*. The specimens apparently are lost. This record probably formed the evidence for the inclusion of *N. roseipinnis* in the Perdido fauna by Smith-Vaniz (1968:131). Otherwise no