canal, in order of their frequency, were 2,2 (in 135 specimens); 2,3 (18); 3,2 (14); 3,3 (8); 1+2,2+1 (8); 1,2 (5); 1+2,2 (3); 1,1 (3); 1+2,3 (2); 2,1 (2); 2,2+1 (2); 2,4 (1); 1+2,1 (1); and 1,2+1 (1). Supraorbital canal incomplete (not joining postocular commissure) but only rarely (3 of 201 specimens) interrupted along its course; pore counts for 198 specimens were 7 (in 7 specimens), 8 (144), 9 (41), and 10 (6); $\bar{x}=8.2$. Preoperculomandibular canal only rarely (3 of 441 specimens) interrupted along its length; pore counts are presented in Table 10. Dermosphenotic bone reduced or absent. In adults infraorbital canal ranges from interrupted to complete at position of this bone. Pore counts for adults with complete IO canals were 11 (in 2 specimens), 12 (22), 13 (33), 14 (26), 15 (17), 16 (7), 17 (2), and 18 (1); $\bar{x}=13.6$. In adults with IO canal partially or fully incomplete most frequent pore count formulas were 11+3 (in 38 specimens), 10+2 (27), 10+3 (18), 11+2 (18), 12+3 (12), 11+4 (7), and 12+2 (6). Number of IO pores before dermosphenotic disjuncture (when present) 9 (in 3 specimens), 10 (51), 11 (68), 12 (21), 13 (6), and 14 (2); $\bar{x}=10.9$.

Lips typically little or no darker than snout tip and chin. Usual pattern of chin and gular pigmentation illustrated in Fig. 2A. Pigment extending posteriorly along mandibles to near angle of mouth but limited to anterior portion of gular area. Typically no darkened preorbital blotch and no dark band passing around snout. Superficial pigmentation of snout, top of head, and temporal-upper opercular areas uniformly dark and scattered. In breeding males pigment over posterior margin of cleithrum usually forming dusky bar of varying intensity. Cleithral pigment reduced in females and nonreproductive specimens.

Dusky middorsal stripe moderately developed before dorsal fin but weaker posteriorly. Stripe not surrounding dorsal fin base, though pigment laterad to dorsal fin may be slightly duskier than surrounding areas. In females, scales on upper anterior sides of body usually outlined by pigment. Suffusions of pigment under centers of scales occasionally obscuring crosshatched pattern. In some cases males resemble females; but often, especially during breeding season, general increase in melanism obscures crosshatched effect. About 65 percent of breeding males examined had a few conspicuously darkened scales on flanks. Slight concentrations of pigment over myosepta on anterior dorsolateral part of body producing faint chevron-shaped markings in about 20 percent of breeding males examined. Darkened scales and chevrons accentuated by increased melanism of breeding males; both features rarely developed in females. Bar-like markings never developed on body.

Poorly defined dusky stripe present midlaterally on caudal peduncle. Posteriorly, it is one or two scale rows wide, weak to moderate in intensity, and has diffuse borders. Stripe broadens and fades over and anterior to anal fin; only an occasional suggestion of weak lateral stripe continuing forward to head and across opercle to eye. Stripe may broaden slightly over hypural plate, but discrete caudal spot absent. Pigment usually extends slightly (females) to far (breeding males) below lateral line at midbody, primarily along scale borders. Discrete punctulations above and below each lateral line pore lacking. Melanophores weakly to moderately developed along anal fin base and in a double row along ventral surface of caudal peduncle. Anterior basidorsal spot absent.

FIGURE 3.—A.—*N. bellus alegnotus*, weakly tuberculate adult male 47.6 mm SL. UAIC 2504; Black Warrior dr., Alabama. 19 March 1967. B.—*N. b. bellus*, tuberculate adult male 52.2 mm SL. CU 16027; Tallapoosa dr., Alabama. 12 June 1949. C.—*N. atrapiculus*, tuberculate adult male 50.7 mm SL. CU 53157; Conecuh-Tallapoosa dr., Alabama. 22 May 1968. D.—*N. roseipinnis*, tuberculate adult male 44.9 mm SL. TU 45468; Pascagoula dr., Mississippi. 16 April 1967. E.—*N. roseipinnis*, tuberculate adult male 44.4 mm SL. TU 15453; Pearl dr., Louisiana. 21 April 1957.