

The pattern of head tuberculation of all members of the *roseipinnis* complex is basically like that of *N. umbratilis cyanocephalus* (Fig. 1B). Numerous moderately small, erect tubercles scattered over top of head from occiput to snout tip. Poorly defined hiatus occasionally present between snout tip and head dorsum tubercles, just anterior to nostrils. Tubercles extending laterally on temporal area to upper opercle. They may be slightly larger and more concentrated along upper rim of orbit, but seldom form a discrete row. Snout, preorbital, and suborbital areas bear numerous scattered, erect tubercles. In many specimens suborbital tubercles terminate posteriorly near angle of preopercle (as in Fig. 1B). Large males of this form more prone than any other member of *roseipinnis* complex to develop postorbital tubercles. Roughly half the large breeding males examined had few tubercles scattered over subopercle and lower part of opercle, and several specimens had few tubercles on middle of opercle and immediate postorbital area. Interopercle and exposed portions of branchiostegal rays bear rows of well-developed tubercles, and a series rims posterior edge of opercle on opercular membrane. Each mandible bears double row of tubercles, a laterally directed row along outer edge of dentary bone, an inner, ventrally or ventrolaterally directed row along inner border. Outer row usually continuous around chin tip to join counterpart from opposite side. Inner row often does likewise, but may terminate anteriorly near first preoperculomandibular canal pore. Few tubercles occasionally scattered over gular area. Lips typically nontuberculate. Tubercles on lateral and ventral parts of head approximately equal to those on top in size and development.

Tuberculation of body scales weak and variable posterior to imaginary line between dorsal and anal fin origins. Anterior to this line and below lateral line, 1 to 5 (usually 2 to 3) erect or slightly antrorse tubercles along margins and occasionally over centers of scales in prepelvic area. Tuberculation of belly and breast variable. In some specimens these areas nontuberculate; in others, both areas armed with tubercles arranged 1 or 2 per scale. Scales above lateral line on sides of body bear about 4 to 7 erect or slightly antrorse tubercles. These usually line posterior margin of each scale but occasionally are more randomly scattered, especially near head. Tubercles weakly developed near dorsal fin origin, but becoming larger, stronger, and more numerous anteriorly along middorsal line. On nape, erect or slightly antrorse tubercles numerous, about as large as those on head dorsum, and not closely associated with scale margins.

FEMALES.—Few small, weak tubercles usually scattered along nape and over top of head of breeding females. Irregular single or double row of weak tubercles often extends along mandible. Otherwise head areas tuberculated in males usually naked in females. Body and fins usually nontuberculate.

COMPARISONS.—*N. b. bellus* is compared with other forms of the *roseipinnis* complex in Tables 16 and 17 and in succeeding Comparisons sections.

N. b. bellus is sympatric and syntopic with *N. lirus* near the Fall Line in the Coosa River system and in the upper Cahaba River system. Except for a few putative hybrids (CU 53341, CU 53353, TU 23595), these two are most readily distinguished by the following features: (1) Chin pigment of *lirus* is restricted to a thin black band around the tip of the lower jaw; cf. with Fig. 2A for *b. bellus*. (2) Breeding males of *lirus* have large, antrorse tubercles on top of the head and few tubercles on lateral and ventral areas of the head. One or two prominent tubercles at the chin tip are characteristic. Head dorsum tubercles of *b. bellus* are moderate in size and erect, and lateral and ventral head areas are