

on both areas, with 1 or 2 moderate-sized, erect tubercles per scale. (2) Tubercles lining the posterior margins of body scales range from erect to distinctly retrorse and are only rarely weakly antrorse. (3) Middorsal and nape tubercles range from erect to moderately antrorse, but the antrorse condition was observed more frequently than in the nominal subspecies.

FEMALES.—The tubercle description of females of the nominal subspecies applies equally well to this form.

COMPARISONS.—*N. b. alegnotus* is compared with other members of the *roseipinnis* complex in Tables 16 and 17. In addition to the differences noted there, *N. b. alegnotus* shows average differences from *N. b. bellus* in the following more subtle features: (1) Subspecies *bellus* has a well-developed lateral line; *alegnotus* has pores poorly formed or absent from some scales. (2) The cephalic lateral line of *alegnotus* is more reduced, though pore counts of the POM and IO canals average higher. (3) The number of ST canal pores was reduced from two to one or zero on one or both sides of the head in 52 percent of the *alegnotus* examined; the corresponding figure for *bellus* was 6 percent. (4) The IO canal is complete or incomplete at the dermosphenotic bone in *bellus*; it is usually incomplete, rarely complete, in *alegnotus*. (5) Pectoral fin tubercles are slightly smaller and more close-set in *alegnotus*. (6) In *alegnotus* tubercles on the underside of the head are approximately 50 percent larger than those on top; they are approximately equal in *bellus*. (7) Red color in the dorsal fin of *bellus* is usually subdued; the dorsal fin of *alegnotus* is bright red.

*N. b. alegnotus* is syntopic with no other species of *Lythrurus*. *N. ardens* is present in the upper Locust Fork of the Black Warrior system but has not yet been taken in proximity with *N. b. alegnotus*. The two are easily distinguished by the presence of an anterior basidorsal spot in *N. ardens*. The only other *Lythrurus* species that could be confused with *N. b. alegnotus* are *N. fumeus* and *N. lirus*. These species are similar to *N. b. alegnotus* in having a dusky lateral stripe, but both are readily distinguished from it by the absence of the peculiar pattern of dorsal fin pigmentation (Fig. 9). Furthermore *N. fumeus* has yellow rather than red fins and more reduced breeding tubercles on the head. *N. lirus* is distinctive in having chin pigment restricted to the tip of the lower jaw and in possessing large, antrorse head tubercles and a few enlarged tubercles on the chin tip.

SEXUAL DIMORPHISM.—Sexual dimorphism is well developed in *N. b. alegnotus* and is most pronounced during the breeding season. Sexual differences in breeding tuberculation and coloration have been summarized. No sexual dimorphism in meristic characters was noted.

Sexual dimorphism in morphometric characters is summarized in