

A COLONY OF *EUGLANDINA ROSEA* AT BEAUFORT, NORTH CAROLINA

DOUGLAS A. WOLFE AND JERALDINE H. BROOKS

Bureau of Commercial Fisheries
Radiobiological Laboratory¹
Beaufort, North Carolina 28516

The range of the carnivorous land snail *Euglandina rosea* (Férussac) was reported by Pilsbry (1946) to extend from the vicinity of Yemassee, South Carolina, along the coastal plain south and west into Louisiana, including all of Florida. Burch (1962) gave the range as South Carolina, Florida, Alabama, Mississippi, and Louisiana. The northernmost record is Charleston, South Carolina (Mazýck 1913). The present report concerns a colony of living *Euglandina rosea* at Beaufort, North Carolina, some 260 miles north and east of Mazýck's Charleston record.

On March 1, 1968, we found nine live specimens of *E. rosea* along the north side of Highway 70 at the extreme western edge of Beaufort. The snails were crawling within the perimeters of two adjacent old foundations from which buildings had been moved 2 or 3 days earlier. Nine additional

.....

1 The Radiobiological Laboratory is jointly supported by the Bureau of Commercial Fisheries and the Atomic Energy Commission.

shells of *E. rosea* were found at the same time and place; eight contained intact dead snails and the other was empty. We speculate that these specimens might have died because of the abrupt exposure to the cold wind blowing at the time (about 2° C; 25 m.p.h.).

Three other gastropod species were abundant at the collecting site: a slug, *Limax flavus* Linné, and two snails, *Triodopsis hopetonensis* (Shuttleworth) and *Helicella caperata* (Montagu). Whereas most of the shells of *Triodopsis* and *Helicella* were empty, living slugs were under and around nearly every piece of rubble moved (boards, tin cans, and cement blocks). We tested these and other gastropods as food sources for *Euglandina* as follows. Three large *E. rosea* were confined in a 1-gallon jar with seven *Limax flavus*, one *Triodopsis albolabris* (Say), and one *Mesomphix rugeli* (Binney). *Euglandina* occasionally attacked the slugs but they responded immediately with a hasty retreat and the carnivore never pressed the attack. After 3 days, three *Triodopsis hopetonensis* were added to the jar. Between

the fifth and sixth days, the three *Euglandina* consumed all the animals except the slugs. After the sixth day, the seven slugs were removed unscathed. Four *Helicella caperata* were introduced on the morning of the tenth day; one was consumed within 24 hours, two more after 24 hours, and the last after 31 hours. Thus, this localized colony of *E. rosea* was apparently surviving on *Triodopsis hopetonensis* and *Helicella caperata* and probably not on the slugs. We did not notice any particular food preference; all four species of snails offered were eaten. Feeding was usually at night. Ingram and Heming (1942) reported that a single captive *E. rosea* had selected only *Mesomphix inornatus* and *Anguispira alternata* from a variety of snails offered, including *Triodopsis albolabris*.

Although the range of *Euglandina rosea* obviously extends as far north as Beaufort, North Carolina, its distribution must be discontinuous and confined to small colonies occurring here and there. A single dead specimen, reportedly found in a yard on the east side of Beaufort, came to the attention of one of the authors (DAW) du-

ring the summer of 1967, but an intensive search of the adjoining area failed to reveal additional specimens. Perhaps *E. rosea* can survive the North Carolina winters only with the protection afforded by buildings or other similar cover.

LITERATURE CITED

BURCH, John B. (1962) How to know the eastern land snails. -- W.C. Brown Co., Dubuque, Iowa, p. 122.

INGRAM, William Marcus and HEMING, Walter Edward (1942) Food, eggs and young of the carnivorous snail *Euglandina rosea* (Férussac). -- *Zoologica* 27: 81-84.

MAZYCK, William Gaillard (1913) Catalogue of Mollusca of South Carolina. -- Contrib. Charleston Mus., No. 2, p. 6.

PILSBRY, Henry A. (1946) Land Mollusca of North America (north of Mexico). -- Acad. Nat. Sci. Philadelphia, Monogr. 3, v. 2, pt. 1: 188-195.

ACCEPTED FOR PUBLICATION APRIL 16, 1968