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FIELD NOTES

A Note on the Feeding Habits of Male Barbour's Map Turtles

Two adult (118 and 135 mm) male Barbour's Map Turtles (*Graptemys barbouri*) were collected in the Chipola River, 10 mi. S of Marianna, Jackson County, Florida, on 20 August 1968 and 1 September 1968. They were found in 2-4 feet of water as they foraged with numerous other individuals on submerged limestone outcrops. The turtles were preserved immediately upon capture; later their gastro-intestinal tracts were removed and examined for ingested food items. Their contents revealed that the turtles were feeding almost exclusively on small aquatic insect larvae, particularly certain trichopterans—Limnephilidae, Hydropsychidae (*Cheumatopsyche* sp.), Helicopsyche (*Helicopsyche* sp.), as well as the lepidopteran Pyralididae. Several wings of adult trichopterans, shell fragments of aquatic gastropods (*Lioplax pilsbryi*, *Goniobasis athearni*), and some plant material also were recovered. The latter item may have been secondarily ingested.

Although the gastropods made up only a small percentage of the total diets of *Graptemys barbouri*, they are probably good indications of where the turtle forages. Three ecologically segregated species of *Goniobasis* occur in this portion of the Chipola River. One species, *G. cf. floridensis*, lives primarily in the larger tributaries, and is perhaps utilized by map turtles living in these areas. A second species, *G. curvicostata*, which inhabits shallow water and mud bars, was not encountered in the gastro-intestinal tracts examined, even though it was very abundant at the collection sites. *Goniobasis athearni*, the only species preyed upon, occurs primarily on limestone outcroppings in the major channels of the river.

Caddisfly and aquatic moth larvae abound in the fast water where the male *Graptemys* were collected. The larval trichopterans and the gastropods found in the gastro-intestinal tracts typically inhabit the sides and bottoms of the rocks in faster portions of the streams and rivers. The aquatic pyralidid larvae are the alga-slime feeding type and probably inhabit similar situations. The small size of these insects is compensated for by their numbers. The digestive tract of the larger male contained well over a thousand insects. The cases of the caddisflies were not digested and remained intact.

It is interesting to contrast the diet of these male turtles to their female counterparts. The female feeds on pelecypods (*Corbicula leana* and others), gastropods and crayfishes (Archie Carr, 1952. Handbook of Turtles; personal observations). Perhaps the differences in diets of the sexes may, in part, explain the apparent high popula-

tion densities of these turtles. These dietary differences may reduce competition between the sexes, allowing larger numbers of *G. barbouri* to inhabit an area.

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Royal Tern Nesting on West-Coast Peninsular Florida

Although Royal Terns (*Thalasseus maxima*) have been reported nesting on the coast of the Florida Panhandle and the Florida east coast during the past 25 years (Hallman 1952 and 1968; Stevenson 1972; Ogden 1974), the species has not nested on the peninsular west coast since the mid- to late 1800's. There are eggs in the United States National Museum collected from "Charlotte Harbor" by G. Wurdemann in the 1850's (USNM 985) and from "Clearwater" by S.T. Walker in the 1880's (USNM 21598). Robertson and Kushlan (1975) comment that commercial eggging probably caused the disappearance of the species from the State by around 1890.

On 13 June 1975 in Charlotte County, Florida, on a spoil island just east of the intracoastal waterway in northern Charlotte Harbour, three-fourths of a mile north of Devilfish Key, we found and banded (FWS 624-69500) a Royal Tern chick about three weeks old. Two adults flew overhead calling while we had the chick in hand, and, when released, the chick joined the 2 adults on the beach 50 yards from where we were working. Approximately 500 pairs of Laughing Gulls (*Larus atricilla*) have nested on this island for the past three years. It is interesting to note that in 1974 a pair of Caspian Terns (*Hydroprogne caspia*) nested on the island (Dunstan, Schreiber, and Dinsmore 1975), but no Caspian Terns were seen near the island during this breeding season.

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Literature Cited

Dunstan, F., R.W. Schreiber, and J.J. Dinsmore. 1975. Caspian Tern nesting in Florida, 1973 and 1974. *Fla. Field Naturalist*, 3: 16-17.