## NOTES ON THE GEOGRAPHICAL DISTRIBUTION OF THE GULF COAST TICK, AMBLYOMMA MACULATUM (KOCH) [ACARI: IXODIDAE]<sup>1,2</sup>

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ABSTRACT: 1982, six specimens of the Gulf Coast tick, *Amblyomma maculatum* (Koch), were taken in two northern Mississippi Counties. Additional specimens were taken during a trip to southwestern Kentucky.

The Gulf Coast tick, Amblyomma maculatum (Koch), is a three host species found in the southern United States, generally in areas bordering the Gulf of Mexico and Atlantic Ocean (Bishopp and Trembley, 1945). According to Bishopp and Hixson (1936), it is seldom found in large numbers farther inland than 100 miles. Cooley and Kohls (1944) published on the distribution, hosts, and taxonomy of this species. The Gulf Coast tick has been reported from Florida, Georgia, South Carolina, North Carolina, Virginia, and Delaware on the Atlantic coast and also from Arizona, Arkansas, and California (Bishopp and Hixson, 1936; Lancaster, 1973). It is well established in northeastern Oklahoma (Semtner and Hair, 1973) and is also known to exist in southeastern Kansas. A few specimens taken at Dallas, Texas and Memphis, Tennessee were suggested to have been brought in on livestock shipped from the coastal region. Amblyomma maculatum has been reported twice from Arkansas (Lancaster, 1973) and is considered relatively rare in Alabama occurring only in the southern onethird of the state (Cooney and Hays, 1972).

In a current research project concerning the rickettsial organisms associated with the Lone Star tick, *Amblyomma americanum* (L.), ticks were collected weekly throughout the 1982 season in northern Mississippi, with occasional collecting trips to the TVA Land Between the Lakes region in southwestern Kentucky. Ticks were collected by dragging with a flannel cloth in the study area. Six specimens of the Gulf Coast tick were collected in northern Mississippi; four in Noxubee Co. and two in Oktibbeha Co. These locations are 200-250 miles from the Gulf Coast. Also, one specimen was collected in the Land Between The Lakes region of southwestern Kentucky. Subsequently, a search through the student collections in the Medical Entomology collection at Mississippi State

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University revealed 11 more specimens from northern Mississippi, representing Lafayette, Lowndes, and Oktibbeha counties.

The majority of these specimens were collected in July or early August (see records) which is consistent with the findings of Hixson (1940) who reported an adult peak in July. These records further expand the known range of this species. Bishopp and Hixson (1936) suggested that northern records may represent specimens brought in on livestock from the coastal region; however, all of the ticks collected in Noxubee Co., Miss. were found in a national wildlife refuge isolated from pastureland. Also, the specimen from Kentucky was collected in an area free of any known livestock. These records indicate that either the previously reported range of *Amblyomma maculatum* may be incomplete or this species is extending its range northward.

## New Records of Amblyomma maculatum

Material examined — Lafayette Co., MS, Oxford, 21-V-1974, L. Thead,  $2 \ (SC)^*$ ; Lowndes Co., MS, Crawford, 14-IV-1982, B. Hinkle,  $4 \ 9 \ 1 \ \sigma$  (SC); Marshall Co., KY, 6 mi. E. Aurora, 2-VIII-1982, J. Goddard,  $1 \ \sigma$ ; Noxubee Co., MS, Noxubee Wildlife Refuge, 5-VI-1982, J. Goddard,  $1 \ 9$ ; Noxubee Wildlife Refuge, 2-VII-1982, J. Goddard,  $1 \ \sigma$ ; Noxubee Wildlife Refuge, 8-VII-1982, J. Goddard,  $1 \ 9 \ 1 \ \sigma$ ; Oktibbeha Co., MS, Starkville, 4-VII-1974, D. Wigle,  $4 \ \sigma$  (SC); Starkville, 1-VII-1982, S. Winters,  $1 \ \sigma$  (SC); Starkville, 10-VII-1982, J. Goddard,  $1 \ 9$ .

All of these specimens are deposited in the Mississippi Entomological Museum, Mississippi State University.

\*Student Collection

## LITERATURE CITED

- Bishopp, F.C., and H. Hixson. 1936. Biology and economic importance of the Gulf Coast tick. J. Econ. Entomol. 29: 1068-1076.
- Bishopp, F.C. and Trembley, H.L. 1945. Distribution and hosts of certain North American ticks. J. Parasit. 31: 1-54.
- Cooley, R.A., and Kohls, G.M. 1944. The genus *Amblyomma* (Ixodidae) in the United States. J. Parasit. 30: 77-111.
- Cooney, J.C. and Hays, K.L. 1972. The ticks of Alabama. Auburn Univ. Agr. Exp. Sta. Bull. 426. p.
- Hixson, H. 1940. Field biology and environmental relationships of the Gulf Coast tick in southern Georgia. J. Econ. Entomol. 33: 179-189.
- Lancaster, J.L. 1973. A guide to the ticks of Arkansas. Univ. Arkansas Agr. Exp. Sta. Bull. 779 p.
- Semtner, P.J. and J.A. Hair. 1973. Distribution, seasonal abundance, and hosts of the Gulf Coast tick in Oklahoma. Ann. Entomol. Soc. Amer. 66: 1264-1268.



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