

DISTRIBUTION OF THE CICADAS (HOMOPTERA: CICADIDAE) OF THE BAHAMAS

ALLEN F. SANBORN

Barry University, School of Natural & Health Sciences
11300 NE Second Avenue, Miami Shores, FL 33161-6695, USA

While identifying material in the Florida State Collection of Arthropods (FCSA), I found specimens of cicadas that represent new distribution records for the cicadas that inhabit the Bahamas.

The Bahamas are an archipelago of approximately 700 islands and islets and 2400 cays north of the Greater Antilles (Cohen 1998). These islands were almost completely inundated around seventy thousand years ago during the last interglacial thaw after the Sangamon Ice Age (Cranton & Saunders 1992). Thus, the terrestrial fauna and flora are of relatively recent origin.

The first cicada to be described from the Bahamas was *Diceroprocta bonhotei* (Distant 1901). It has been attributed to New Providence and Andros Islands (Davis 1928). Specimens in the FCSA were collected in Nassau, New Providence, Bahamas which substantiates the distribution previously reported (Davis 1928). In addition, one specimen from the FCSA was collected on Eleuthera which extends the distribution of *D. bonhotei* approximately 80 km east-northeast of New Providence Island. I have also identified a single specimen of *D. bonhotei* in the K. C. Emerson Entomology Museum at Oklahoma State University from Norman's Cay which is one of the northern Exuma Cays approximately 75 km southeast of Nassau. These new records extend the known distribution of *D. bonhotei* to the eastern and central cays of the northern island group.

The distribution of *D. bonhotei* is restricted to the Bahamas. *Diceroprocta bonhotei* is morphologically related to *D. cleavesi* Davis (1930) and *D. caymanensis* Davis (1939a) from the Cayman Islands, *D. biconica* (Walker) (Davis 1932; Davis 1935) and its variety from the Florida Keys, Cuba, the Isle of Pines, and Mexico (Metcalf 1963), and *D. bicosta* (Walker) (Davis 1928) reported from Cuba and Central America (Metcalf 1963). The morphological similarities suggest a common ancestry for the *Diceroprocta* species of the West Indies.

A second cicada species found in the Bahamas, *Ollanta caicosensis* Davis, was originally described from South Caicos Island (type location), Acklin's Island, East Caicos Island, West Caicos Island, and Great Inagua Island (Davis 1939b). All but Acklin's Island are part of the Turks and Caicos Island group which forms the southeastern end of the Bahama Island chain. I have identified specimens in the FCSA that extend the known range of *O. caicosensis* in the Commonwealth of the Bahamas. The newly identified specimens were collected on Mayaguana and

Long Island. The Mayaguana specimens fill the gap in the distribution for the Turks and Caicos group to Acklin's Island. The Long Island specimen extends the known range of *O. caicosensis* some 170 km northwest of Acklin's Island across the Crooked Island Passage. This places *O. caicosensis* on islands of the Bahamas Platform proper.

The genus *Ollanta* has a broad, discontinuous distribution. *Ollanta* species are found in the Bahamas (Davis 1939b), Central America (Metcalf 1963), and Hispaniola (Ramos 1983). The ancestor of *O. caicosensis* may have migrated from the west onto the large island that would become the Bahamas during the last glacial period. Bahamian organisms that do not migrate easily show more affinities to the fauna of Cuba and Hispaniola than to that of the mainland United States (Cranton & Saunders 1992). This would support the hypothesis of an eastward migration of the ancestors of *O. caicosensis* across Cuba or a northward migration from Hispaniola.

The two Bahamian cicada species differ in size. *Diceroprocta bonhotei* is a relatively large species (body length 29-35 mm, wing span 89-110 mm) that inhabits the northwestern islands. *Ollanta caicosensis* is a much smaller species (body length 18-22 mm, wing span 52-65 mm) that inhabits the southeastern half of the Bahamas and the Turks and Caicos.

I wish to thank Julieta Brambila of the Florida State Collection of Arthropods and Donald Arnold of the K. C. Emerson Entomology Museum for their assistance during my visits.

SUMMARY

This paper reports on the distribution of the two cicada species of the Bahamas. *Diceroprocta bonhotei* inhabits the islands of the northwest while *Ollanta caicosensis* is found on the central and southeastern islands into the Turks and Caicos. New distribution records are given for both species.

REFERENCES CITED

- COHEN, S. B. (ed.). 1998. The Columbia gazetteer of the world. Columbia University Press, New York.
CRATON, M., AND G. SAUNDERS. 1992. Islander in the stream: A history of the Bahamian people. Volume 1. University of Georgia Press, Athens.
DAVIS, W. T. 1928. Cicadas belonging to the genus *Diceroprocta* with descriptions of a new species. J. N.Y. Entomol. Soc. 36: 439-458.

- DAVIS, W. T. 1930. The distribution of cicadas in the United States with descriptions of new species. *J. N.Y. Entomol. Soc.* 38: 53-73.
- DAVIS, W. T. 1932. Additional records of North American cicadas with descriptions of new species. *J. N.Y. Entomol. Soc.* 40: 241-265.
- DAVIS, W. T. 1935. New cicadas with notes on North American and West Indian species. *J. N.Y. Entomol. Soc.* 43: 173-199.
- DAVIS, W. T. 1939a. Cicadas collected in the Cayman Islands by the Oxford University Biological Expedition of 1938. *J. N.Y. Entomol. Soc.* 47: 207-212.
- DAVIS, W. T. 1939b. New cicadas from North Carolina and the West Indies. *J. N.Y. Entomol. Soc.* 47: 287-302.
- DISTANT, W. L. 1901. Description of a new species of Cicadidae from Bahama Island. *Entomol. Mon. Mag.* 37: 71.
- METCALF, Z. P. 1963. General catalogue of the Homoptera, Fascicle VIII. Cicadoidea. Part 1. Cicadidae. Section I. Tibiceninae. *N.C. State Coll. Contr.* 1502: 1-585.
- RAMOS, J. A. 1983. Sinopia de las cigarras de la República Dominicana. *Carib. J. Sci.* 19: 61-70.