A NEW SPECIES OF *DICTYSSA* (HOMOPTERA: FULGOROIDEA: ISSIDAE) FROM BAJA CALIFORNIA

Lois B. O'Brien*

RESUMEN

Se describe una nueva especie de *Dictyssa* (Issidae) colectada sobre *Juniperus californica* Carr., en Baja California. Esta es la tercera especie de *Dictyssa* citada para México, las otras dos fueron colectadas en Tijuana, Baja California, México.

Palabra clave: Fulgoroidea, Issidae, Dictyssa.

ABSTRACT

A new species of *Dictysa* Issidae collected on *Juniperus californica* Carr., is described from Baja California. It is the third species of *Dictyssa* reported from México, the other two having been collected at Tijuana, Baja California, México.

Key words: Fulgoroidea, Issidae, Dictyssa.

Doering monographed the Issidae of America north of México in four papers published in 1936, 1938, 1939 and 1941. She illustrated species described before that time from México, but did not describe any new species from México. Caldwell in 1945 described new issids from México. Fennah in 1954 changed the concept of the Issidae by including Acanaloniidae as a subfamily of Issidae and in 1984 removed most of the genera of Issidae endemic to the western United States, particularly California, and placed them in Nogodinidae. This action makes it impossible to key the two families as such and requires keys to pairs of subfamilies. North American entomologist are debating whether to follow this system. In this paper, the earlier classification is followed so that *Dictyssa* may be keyed through Doering's generic key (1938:448-449), although it is one of the genera Fennah moved to Nogodinidae.

Altough issids are a very strong component of México's fulgoroid fauna, most of the species are undescribed, and it is difficult to say what percentaje of the species occur in both the U.S. and Mexico, but that percentage is believed to be low. I know of 7 other genera (Bruchomorpha, Aphelonema, Colpoptera, Hysteroptemun, Misodema, Thionia, and Picumna) which occur in both countries, some of which have 1 or 2 species common to both countries.

^{*} Florida A and M University; Tallahassee, FL, 32307. U.S.A.

138 LOIS B. O'BRIEN

Eleven *Dictyssa* species are found in southern California, Nevada, and Baja California. *D. obliqua* Ball and *D. ovata* Ball are known from Tijuana, Mexico and California. Doering quoted Van Duzee as saying that most species were collected on *Artemisia*. One might expect additional described species to be collected in Mexico, therefore it is better to use Doering's key to species rather than prepare a new key for Mexico at this time. This new species will key to couplet in Doering's key (1936:424-425), but differs from each half in that the large central hyaline cell is I and 1/2 as long as broad and the angle of vein R at the apex of the central cell is slightly obtuse, but is nearer M₁₋₂ than Sc₂.

Dictyssa leonilae O'Brien, sp. nov. (Figs. 1-7).

Size: Length of body from apex of head to tip of tegmen, 3 to 3.5 mm; length of forewing 2.4 to 2.9 mm; width of forewing, 1.7 to 2.1 mm.

Color: General color of body yellowish-brown, forewing blackish-brown with large hyaline cells through middle and 17-19 small ovate hyaline spots in the apical and costal borders. Head and genital segments usually darker than rest of body, usually carinae edged with darker pigment, carinae themselves paler than background.

Structural characteristics: Vertex broad and short, not greatly produced before eyes, lateral margins tapering anteriorly, length through middle about 2/3 length of pronotum, disc slightly depressed. Pronotum broadly rounded anteriorly, 2 small depressed round spots on disc, one on each side of median line, connected by transverse groove. Mesonotum with anterior margin roundingly produced, median carina fading towards base and apex, shallow round depressions on each side of midline and usually at apex. Frons with lateral margins subparallel, anterior margin straight, median carina complete as far as depression sur ounding frontoclypeal suture. Tegmina broadest between apex of claval veins and apex of Cu₂, apical margin evenly rounded, costal margin moderately expanded; oblique hyaline band present, made up of 1 or 2 spots on clavus, 1 or two small spots and four large cells on *corium*, the largest between R and M, about 2/3 as wide as long, its margin studded with 7-9 spurs of veins; 14-19 round hyaline areas along costal and apical border, 4 small hyaline areas along commisural margin of clavus difficult to observe; vein R at apex of central hyaline cell bent at obtuse angle which is at a point nearer to vein M₁₊₂ than Sc₂:

Male genitalia: Anal flap (10th segment) in lateral view twice as long broad. Styli (harpagones) subcuadrate, dorsal tip scarcely elongate. Aedeagus a curved tubular structure with 4 subequal broad spines, in left lateral view bearing 2 basal and one apical spine (fig. 7), in right lateral view one apical spine, theca with dorsal angle prolonged caudad with sharply pointed tip (fig. 6).

Female genitalia: anal flap oval, about 1/3 longer than wide, tapering to blunt narrowed apex; eleventh segment scarcely visible, its dorsal style moderately long. The external valve of the ovipositor broadest through middle, about 2/3 as long as broad, pregenital sternite with median and 2 lateral rounded projections (fig. 4).

Comparative notes: The distinguishing characteristics of this species are the combination of forewing shape, the size and shape of cells in the oblique band of hyaline cells across the forewing, and the presence of hyaline spots in the apical and costal borders.

This species most closely resembles D. obliqua in these characters. The aedeagus resembles that of D. monroviana Doering, D. areolata Melichar, and D. ovata in the sharp elongate dorsal prolongation of the theca and in the number of spines, but in none of these are the four spines subequal.

I name this species D. leonilae in honor of Dra. Leonila Vázquez García.

Location of types: Holotype male and allotype and 2 female paratypes collected in Baja California 24 mi. E; 1.5 mi. N, El Rosario, 1500' (460 m), 8-VI-1974, beating Juniperus californicus, by R. L. Wescott (author's collection). One female paratype, same data, in the collection of the Instituto de Biología, UNAM, México. Two other female paratypes collected in Baja California as follows: 23 km. SE. San Vicente, 160 m., Aug. 25, 1974, A. N. García Aldrete, and Sierra San Pedro Mártir, circa 5 mi. S. Mike's Sky Ranch, 1280m, 16-VII-1977, R. L. Wescott (author's collection).

ACKNOWLEDGEMENTS

I wish to thank Drs. R. L. Wescott and A. N. García Aldrete for the specimens received in exchange.

LITERATURE CITED

CALDWELL, J.S. 1945. Notes on Issidae from Mexico (Homoptera: Fulgoroidea). Ann. Entomol. Soc. Amer. 38(1):89-120.

DOERING, K. C. 1936. A contribution to the taxonomy of the subfamily Issinae in America North of Mexico (Fulgoridae, Homoptera). Part I. Univ. Kansas Sci. Bull. 24(17):421-467.

DOERING, K. C. 1938 Op. cit. Part II. Univ. Kansas Sci. Bull. 25(20):447-575.

DOERING, K. C. Op. cit. Part III. Univ. Kansas Sci. Bull. 26(2):83-167.

DOERING, K. C. 1941. Op. cit. Paart IV. Univ. Kansas Sci. Bull. 27(10):185-233.

FENNAH, R. G. 1954. The higher classification of the family Issidae (Homoptera: Fulgoroidea) with descriptions of new species. Trans. R. Entomol. Soc. London 105:455-474.

FENNAH, R. G. 1984. Revisionary notes on the classification of the Nogódinidae (Homoptera, Fulgoroidea), with descriptions of a new genus and a new species. Entomol. Monthly Mag. 120:81-86.

Corrections:

As I didn't see proof, some errors crept in. The only one that is not self-evident is "9" written in on line 6, pg. 138. Others are: pg. 137, Abstract line 1: read Dictyssa

L 8, read entomologists

L. 12, read Although

1 13, read percentage

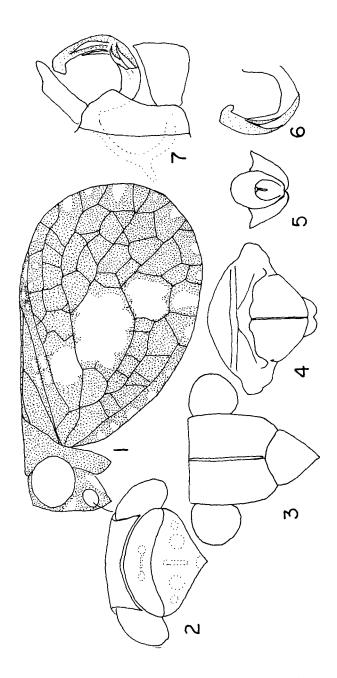
L 15, Hysteropterum pg. 138, 1, 7 read 1 and 1/2

L 32, read long as broad.

1. 33, read subquadrate

pg: 139, L 7 read 24 mi. E.

140 LOIS B. O'BRIEN



Dictyssa leonilae O'Brien: 1. lateral view of insect; 2. dorsal view of head and thorax; 3. frons; 4. ventral view of female genitalia; 5. female anal flap; 6 right lateral view of aedeagus; 7. left lateral view of male genitalia.