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**TAXONOMY, DISTRIBUTION, AND FOOD PLANTS  
OF ACINOPTERUS ANGULATUS**

**DWIGHT M. DeLONG AND HENRY H. P. SEVERIN**



# TAXONOMY, DISTRIBUTION, AND FOOD PLANTS OF ACINOPTERUS ANGULATUS<sup>1</sup>

DWIGHT M. DELONG<sup>2</sup> AND HENRY H. P. SEVERIN<sup>3</sup>

## INTRODUCTION

SEVERIN HAS previously reported (1929, 1934)<sup>4</sup> that three species and a biological race (1940) of one of these species transmitted the California aster-yellows virus. In two papers, DeLong and Severin (1945, 1946) reported the characters, distribution, and food plants of seven leafhopper species. The present paper deals with the characters, distribution, and food plants of *Acinopterus angulatus* Lawson, a newly discovered vector of the virus. In a companion paper, Severin (1946) discusses the transmission of the virus by this leafhopper.

## CHARACTERS, DISTRIBUTION, AND FOOD PLANTS

*Acinopterus angulatus* was described by Lawson (1922). He later re-described it, in error, as *A. spatiosus* Lawson (1930) because of its variable external character.

The internal genital structures of the male will easily distinguish this species from other members of the genus. The distinguishing characters of this species are shown in plate 1.

This is a small blunt-headed species, light to dark greenish brown in color. The length is 5 to 7mm.

The vertex is short and broad, more than twice as wide at the base between the eyes as the median length, about one third longer at the middle than next to the eyes, the anterior margin broadly and bluntly angled, almost rounded. The elytra have an acutely pointed apex.

In color, the vertex, pronotum, and scutellum are greenish brown to yellowish brown. Three longitudinal lines on the scutellum, and the basal angles are lighter in color. The elytra are brown tinged with green, the veins are margined with darker brown. The face is brown, with portions of darker arcs.

The last ventral segment of the female is twice as long as the preceding. The posterior margin of the last ventral segment has distinct lateral angles between which the margin may be slightly concave or slightly produced with a small median notch.

The male plates are broad and more than twice as long as the basal width. They are only slightly narrowed toward the apices, which are broadly rounded and slightly divergent on the apical median margins. The style is bluntly pointed at the apex, then concavely rounded to form a lobe on the outer margin near the apex, narrowed by a deep concave excavation on the outer margin at the middle. The basal outer portion is long and tapered. The aedeagus is bifid at the base with a footlike process. A pair of basal processes are rather long,

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<sup>4</sup> See "Literature Cited" for complete data on citations, referred to in the text by author and date of publication.

curved laterally, and toothed at the apices. The terminal portion is long, tapered to a narrow, somewhat attenuated apex.

*Geographic Range.*—This species is common, and is widespread in distribution throughout California, Arizona, Texas, Mexico, Central America, West Indies, and South America.

*Distribution and Food Plants in California.*—The first population of this leafhopper was collected on Spanish-clover, *Lotus americanus*, growing along the banks of the Salinas River near San Ardo on May 27, 1935. During the winter all of the insects died. In 1936, other adults were next taken in alfalfa fields, *Medicago sativa*, near Soledad in the Salinas Valley. Nymphs and adults were abundant on wild licorice, *Glycyrrhiza lepidota*, in a locality known as the Sacramento Pocket. This leafhopper was captured in alfalfa fields in the Sacramento, San Joaquin, and Santa Clara valleys. Adults were occasionally taken in pastures of Ladino clover, *Trifolium repens* L. var. *latum* McCarthy, in the Sacramento Valley. The adults were also collected on pasture vegetation near the entrance of Pacheco Pass in the San Joaquin Valley and on weeds near Montara, San Mateo County. The collection data of this species of leafhopper indicate, up to the present time, that the preferred food plants belong to the Leguminosae, or pea family.

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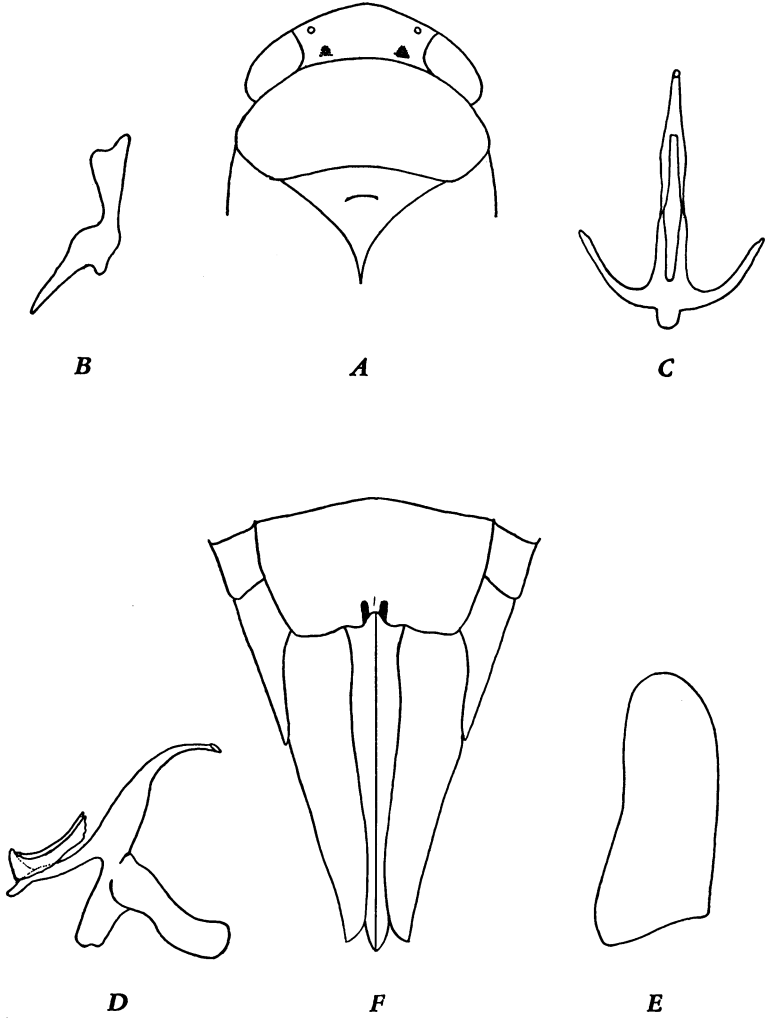


Plate 1.—Characters of *Acinopterus angulatus* Lawson: *A*, dorsal view of head, pronotum, and scutellum; *B*, ventral view of male style; *C*, ventral view and *D*, lateral view of male aedeagus; *E*, ventral view of male plate; *F*, ventral view of female external genital structures.