

A NEW SPECIES OF *HYSTEROPTERUM* FROM GRAPE (Issidae, Fulgoroidea, Homoptera)¹

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The present paper includes a description of a new species of *Hysteropterum*, described mainly from specimens reared on grape in a locality 1.5 miles south of Asti, California, by Doctor Evert I. Schlinger. Dr. Schlinger's descriptive notes on the interesting egg laying habits and other biology of this insect follow in this issue. *Hysteropterum beameri* was reported by Dr. Schlinger as being very abundant in the type area during 1954. In view of the fact that it has never appeared in any of the numerous collections previously studied by the author, it must be a species of rather sporadic occurrence.

Hysteropterum beameri n. sp.

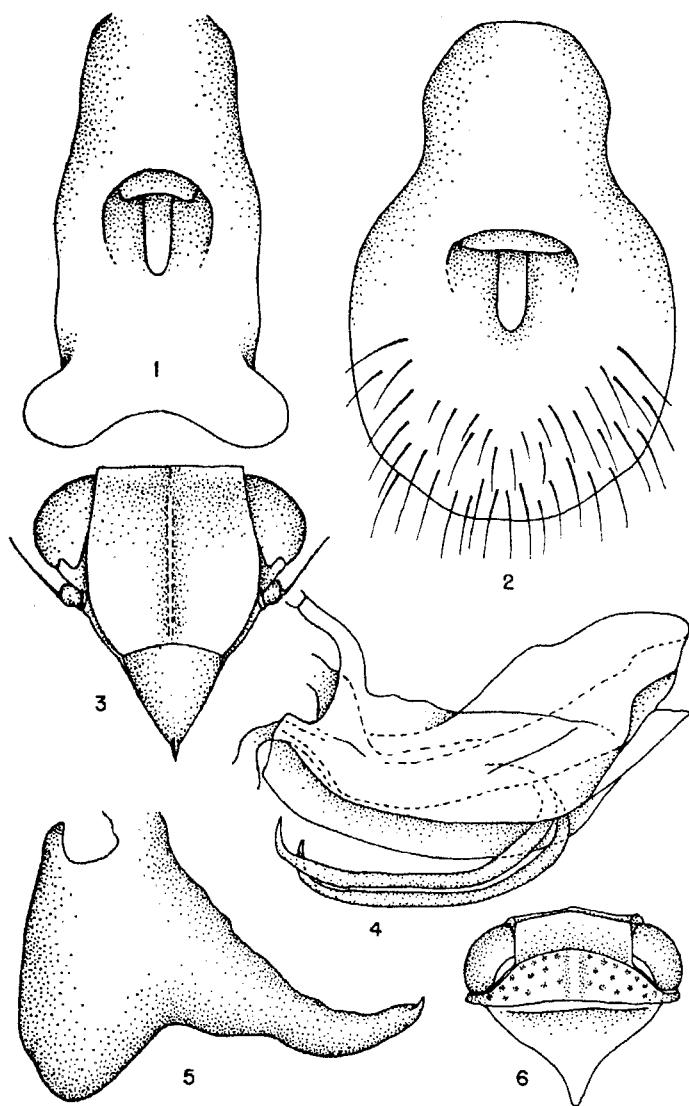
Size: Length of female 5.6 mm., width 3.3 mm.; length of male 4.9 mm., width 3 mm.

Color: Coloring stramineous, anterior half of subcostal cell of tegmen forming a broad cream-colored border, posterior half fuscous brown, clavus clouded with fuscous and apical and subapical areoles mottled fuscous, veins light. Eyes mottled red-brown. Vertex stramineous with indistinct brown splashes. Pronotum stramineous, uniformly dotted with round brown spots. Scutellum stramineous, shaded with dark through middle. Abdominal terga mostly dark. Ventral surface light yellow marked with dark at many points. Discs of frons dark brown peppered with light spots; each lateral border light, punctate with dark brown dots. Each lateral half of clypeus crossed by a stripe consisting of oblique brown bars. Legs yellow with numerous brown streaks and spots of brown, fore and middle femora with a narrow brown streak on anterior half and a wide brown stripe on posterior half; tibiae also striped in yellow and brown.

Structural Details: Vertex rectangular, anterior margin broadly rounded, lateral margins not conspicuously elevated, frons protruding beyond median line of vertex, considerably less than half the length of the latter, disc of vertex shallowly concave. Pronotum without carinae. Disc of mesonotum rugulose. Frons as in *H. auroreum* (Uhler) with only a median carina present, disc on each side flat, basal margin almost straight, posterior margin shallowly emarginate to receive the postclypeus. Tegmen not quite twice as long as greatest width, its shape similar to that of *auroreum* with its dorsal line from a lateral view straight and not concave through middle, posterior margin obliquely sloping, a pronounced bulla at base of vein $Sc_2 + R$, costal cell broadly reflexed against venter and this cell about one-half the width of the subcostal cell.

Male Terminalia: In situ tip of aedeagus not exposed since apex of tenth segment is bilobed and does not reach tips of parameres as in *auroreum* and other species. From a flattened dorsal view tenth segment tubular for a third of its total length, posterior to this its lower margin is then extended caudad as a wider plate-like extension (anal flap) which becomes strongly

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EXPLANATION OF FIGURES

Hysteropterum beameri n. sp.: 1. flattened dorsal aspect of anal segments (tenth and eleventh) of male; 2. dorsal aspect of female anal segments; 3. frontal aspect of head of female; 4. left view of aedeagus and theca; 5. flattened lateral view of paramere; 6. dorsal aspect of head and thorax of female.

bilobed at apex with a broad and deep concavity occurring between two apical lobes. Posterior to semi-circular dorsal margin of tenth segment, an annular eleventh segment and stylus are exposed.

Parameres in situ from ventral view appear as two pointed flat plates, meeting at midline. At sides they curve around the aedeagus and their dorsal arms extend to the latero-apical lobes of tenth segment. In flattened lateral view each paramere approximately twice as long on ventral margin as its basal width; on its dorsal side extended dorsad into a long arm-like process which is much longer than other species of the genus, the arm itself being about twice the width of the plate-like part.

Theca closely ensheathing aedeagus so that externally only two long, slender, well sclerotized processes of aedeagus show; these curved rods emerging one on each side from between upper and lower lobes of theca which is split apically to a distance about one-third of the way back from apex; upper lobe of theca bulging apically, covering tip of aedeagus which seemingly lacks apical hooks; ventral portion of theca extending posteriorly as a single pointed plate which does not quite reach apex of aedeagus.

Female Terminalia: Tenth segment a flattened tube at base as in the male, beyond which on ventral side it is extended into a broad spatulate lobe, the anal flap, which is almost twice as wide as tubular base. Shape of this segment differing from other species as follows: basal annulus bearing a conspicuous constriction halfway from base, from which point it immediately widens into the anal flap; free margins of anal flap parallel-sided, not deflexed, apex broadly rounded.

Comparative Notes: This species resembles *aurorum* (Uhler) in general coloration, having a cream-colored subcostal border in contrast to fuscous-spotted remainder of wing. It is similar to *aurorum* in having a straight anal border of wing, not concave through middle, and in having a straight rod-like aedeagal process as opposed to a bifid one. It differs from *aurorum* by the following: frons flat, clypeus likewise flat and not invaginated into frons, in dorsal view frons protruding very little beyond vertex; lateral processes of aedeagus strongly recurved at apex; aedeagus mostly hidden by theca and without apical hooks; paramere with dorsal arm slender and much longer than basal width while in *aurorum* the arm is one-half of basal width; anal flap of male distinctly bilobed, central third of apical margin deeply concave, while *aurorum* is trilobed, with median lobe prominently projecting caudad.

Location of Types: Described from 13 specimens reared at a location 1.5 miles south of Asti, California, Sonoma county, California by Dr. Evert Schlinger, January, 1954.

Holotype male, allotype female and paratypes in the Snow Entomological Museum; other paratypes in the California Academy of Sciences, San Francisco, the University of California, Davis, California, and the private collection of Dr. Schlinger, Riverside, California.