

Short communication

Differentiation of two closely related species of the genus *Empoasca* (Hem.: Cicadellidae)

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چکیده

پیش‌تر، گونه‌ای زنجبرک از مزارع چغندرقد استان اصفهان به اشتباه به نام *Empoasca decipiens* (Paoli) گزارش شده است که در این نوشتار نام صحیح آن به صورت *Empoasca meridiana* Zachvatkin اعلام می‌گردد. گونه‌ی اخیر دارای سینونیم شناخته‌تری به نام *Empoasca punjabensis* Singh-Pruthi می‌باشد. گونه‌های آسیایی خویشاوند گونه‌ی *E. decipiens*، براساس شکل پیگوفر (pygofer) ژنتالیای نر از هم تفکیک می‌گردند، به‌طوری‌که پیگوفر در گونه‌ی *E. meridiana* دوکی شکل ولی در گونه‌ی *E. decipiens* عدسی شکل می‌باشد.

During the faunistic studies on Auchenorrhyncha (Hemiptera) of sugarbeet fields in Isfahan province (Iran) between 1995 and 1997, specimens of genus *Empoasca* Walsh (Cicadellidae: Typhlocybinae: Empoascini) belonging to the group species *Empoasca decipiens* were collected. Based on reliable literature (Ribaut, 1936; Emeljanov, 1967; LeQuesne & Payne, 1981), the collected specimens were then determined as *Empoasca decipiens* (Paoli) (Karimzadeh, 1997; Karimzadeh *et al.*, 1998). However, this determination was somewhat controversial because of the earlier report of *Empoasca meridiana* Zachvatkin from the same region (Kheyri & Alimoradi, 1968). Due to lack of data on discrimination of the two mentioned species and inaccessibility of the original description of latter species the problem remained unsolved.

Here, this is documented that the earlier reports on *E. decipiens* from Isfahan's sugarbeet fields (Karimzadeh, 1997; Karimzadeh *et al.*, 1998) have just been misidentifications of *E. meridiana*. It is now clear that all specimens of *Empoasca* sp. collected from Isfahan's sugarbeet fields were *E. meridiana*, which has a more known synonym, *Empoasca punjabensis* Singh-Pruthi (Dworakowska, 1973; Sohi & Dworakowska, 1983; Sohi & Mann, 1987). These two closely related species are distinguished based on the pygofer process of male genitalia, which is fusiform in *E. meridiana* while it is lentiform in *E. decipiens*. In both species, the curvature of the pygofer process faces almost perfectly compared with other related species in that it considerably shifts apart (fig. 1).

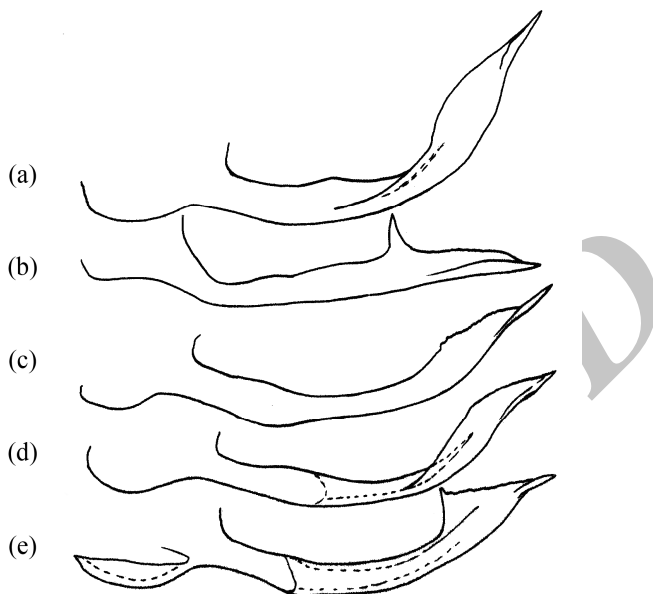


Figure 1. The pygofer process of male genitalia in Asiatic species related to *E. decipiens*. (a) *E. turanica*, (b) *E. pteridis*, (c) *E. meridiana*, (d) *E. decipiens*, (e) *E. affinis*.

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