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# A new species of ***Scoliophthalmus*** Becker (Diptera: Chloropidae) from Turkey

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## Summary

In this study a new species of ***Scoliophthalmus*** Becker belonging to the family Chloropidae, (Diptera) ***S. civeleki*** n. sp., is described from Turkey. Adults of this species were collected from the streamside grasses and ***Phragmites*** sp. of Mugla province in southwest Turkey.

**Key words:** Chloropidae, ***Scoliophthalmus***, new species, Mugla, Turkey

**Anahtar sözcükler:** Chloropidae, ***Scoliophthalmus***, yeni tür, Muğla, Türkiye

## Introduction

The genus ***Scoliophthalmus*** (Diptera: Chloropidae) Becker was erected to accommodate a single new species, ***S. trapezoides*** Becker, from Egypt. Although belonging to the Oscinellinae, this species was abnormal in having the costa extending only to mid way between the apices of veins R4+5 and M1+2, and in consequence was considered to belong to the Chloropinae. This shortening of the costa is not unique within the Oscinellinae, there being some species of the seed-head flies genus ***Dicraeus*** Loew having identical adaptation. All ***Scoliophthalmus*** species described since have the costa extending to vein M1+2.

As far as is known all ***Scoliophthalmus*** species develop in shoots of coarse grasses (bents) and cereals such as sorghum (***Sorghum bicolor*** L.), millet (***Pennisetum americanum*** (L.) K. Schum.), maize (***Zea mays*** L.) and rice (***Oryza sativa*** L.) in the warmer parts of the Old World. Some species are

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responsible for the destruction of cereal seedlings and host plant records for four African species are given (Deeming, 1972).

In this genus the gena is very deep and shining and the third antennal segment is usually apically acutely pointed (Anderson, 1977). A broadening of the gena often accompanied by such antennal modification occurs in some other Chloropidae that develop in grasses, being the group of species allied to ***Oscinella nitidigenis*** Becker (Deeming, 2003). In ***Scoliophthalmus*** spp. the deep shining gena is in fact an occipital dilation which occupies the entire genal area apart from a small minutely pilose triangle adjoining the vibrissal angle. I suggest that such a modification gives greater rigidity and strength to the head to facilitate the escape from vegetative confines by the adult when emerging from the pupa.

## Taxonomy

Two separate keys according to sex for the recognition of the six Oriental and Eastern Palaearctic ***Scoliophthalmus*** species are given by Kanmiya (1983). These are based entirely upon characters of the postabdomen. Sabrosky (1951) gave a key to four African species and included a further queried and unnamed new species, separated from ***S. femoralis*** on a male secondary sexual character, but it has since become evident that these are the same species. This latter key is based entirely upon gross morphology. It is, therefore, not easy to combine the two keys. Since one Asian species is now in terms of distribution encroaching into the Afrotropical Region and there are previously neglected characters that are of diagnostic value I deem it worthwhile to present a key to all those species present in lands west of the Indian subcontinent.

Key to ***Scoliophthalmus*** spp. known from the western Palaearctic, Arabia, Africa and its islands

1. Third antennal segment with margin rounded .....2

- Third antennal segment with acute dorsoapical angle.....3

2. Fore femur strongly swollen, quite half as deep as it is long, with strong flexor spines anteroventrally and posteroventrally. Gena just behind vibrissal angle emarginate with a forwardly-directed spike, appearing like a second vibrissal angle. Frons black throughout. All tarsal segments yellow. Distributed in Uganda, Kenya, Rwanda, Zaire, Liberia, Mali, Cameroun, Nigeria and Ghana ……***femorata*** (Becker, 1916)

- Fore femur and gena not so developed. Apical tarsal segments and entire tarsus more or less infuscate. Anterior margin of frons sometimes yellowish. Distributed in Ivory Coast, Sierra Leone, Nigeria ..... ***gyratus*** (Séguy, 1941)

3. Haltere whitish yellow. Discal cell apically subtruncate, the hind crossvein not oblique. Male with hind femur strongly bowed, with a stout spine on the flexor surface near the base. Distributed in Uganda, South Africa, Tanzania, Kenya, Nigeria, Cameroun and Niger .....***femoralis*** Becker, 1916

- Haltere with black knob. Hind crossvein strongly oblique. Male hind femur not so developed.....4

4. Costa not reaching vein M1+2.....5

- Costa extending to vein M1+2.....6

5. Legs black, only yellow on fore and mid trochanters. Mesonotal setulae short, recumbent, between the prescutellar dorsocentral bristles in quite 10 irregular rows. Lateral scutellar marginal bristle minute, not longer than the interval between the apical marginals and not or scarcely longer than the setulae on scutellar disc. Distributed in Egypt, Israel, Yemen, Saudi Arabia, Ethiopia, Gambia, Ghana, Cameroun, Senegal, Burkina Fasso, Nigeria, Kenya, Uganda, Zambia, Mozambique, Congo, Tanzania and South Africa……..……..….***trapezoides*** Becker, 1903

- At least the hind basitarsi yellow and knees narrowly yellowish as well as trochanters. Mesonotal setulae longer, more erect, in only about 6 rows between the prescutellar dorsocentrals. Lateral scutellar marginal bristle about 0,5 times length of apical marginal and much longer than setulae on scutellar disc. Distributed in Turkey ……***civeleki*** sp. n.

6. Mesonotal setulae very short and compact, the longest of these not more than 0.2 times length of prescutellar dorsocentral, the intervals between the mesonotal setulae much less than that between the posterior ocelli. Distributed in Nigeria, Benin, Senegal, Gambia, Mali, Burkina Fasso, Tanzania, Zambia, Zimbabwe, Kenya, South Africa, Uganda and Ethiopia……..***micantipennis*** Duda, 1935

- Mesonotal setulae long, erect and more widely-spaced, longest of these about 0.4 times length of prescutellar dorsocentral and much longer than interval between posterior ocelli. Distributed in Oriental Region, extending westwards to Oman, Reunion and Rodriques……..……..***micans*** Lamb, 1918

***Scoliophthalmus civeleki*** sp. n. male, female

In addition to the cited key characters, a very shining black elongate and rather dorsoventrally flattened species, the mesonotum being medially flat, with all hairs and bristles black, dusted only on inner surface of fore coxa, on hind margin of pteropleuron and on hypopleuron; frons long and planate, extending further in front of eye than vibrissa; face concave with a broad low medial carina, that is yellowish brown on upper half, becoming shiny black on lower, the antennal pit on either side of same dirty yellow colour; frons longer than wide with shining black frontal triangle reaching to fore margin, where it is narrowly truncate, the remainder of frons satin-black except on extreme anterior margin, where it is dirty yellow;

inner and outer vertical bristles, postocellars, ocellars and upper two orbital bristles long and fine, the c.6 orbitals in front of them weak, shorter and irregular in length, the ocellars outwardly-directed; the c. 8 fine proclinate bristles on either side of frontal triangle becoming progressively longer towards vertex; gena in profile quite two thirds of height of eye, with a row of fine britles on extreme mouth margin, the one immediately behind vibrissa nearly as long and strong as it is; occiput shining black throughout; antennae brownish yellow with apex of third antennal segment somewhat infuscate and arista somewhat paler in mid section; third antennal segment apically pointed, the apex forming an angle of 50 degrees. Thorax slightly narrower than head, the mesonotum almost three times as long as the scutellum and bearing two strong notopleurals, one strong and one weak postalars, one strong dorsocentral and one weak humeral; scutellum apically rounded with two pairs of marginal bristles, the intervals between the bases of the four bristles subequal and all four with distinct tubercles at their bases, otherwise with numerous short hairs. Wing slightly greyish hyaline with brown veins, veins and membrane appearing paler basad to apex of R1; posterior crossvein strongly oblique, causing the upper apical angle of the discal cell to be about fifty degrees, separated from anterior crossvein by nearly twice its length. Legs not unusual in any way. Abdomen in female sometimes extending beyond apex of wing; male epandrium and surstyli (Fig. 1) and basiphallus, hypandrium and gonites (Fig. 2); female cerci (Fig. 3) each with the usual two long bristles.

Length about 1.7-4.1 mm.

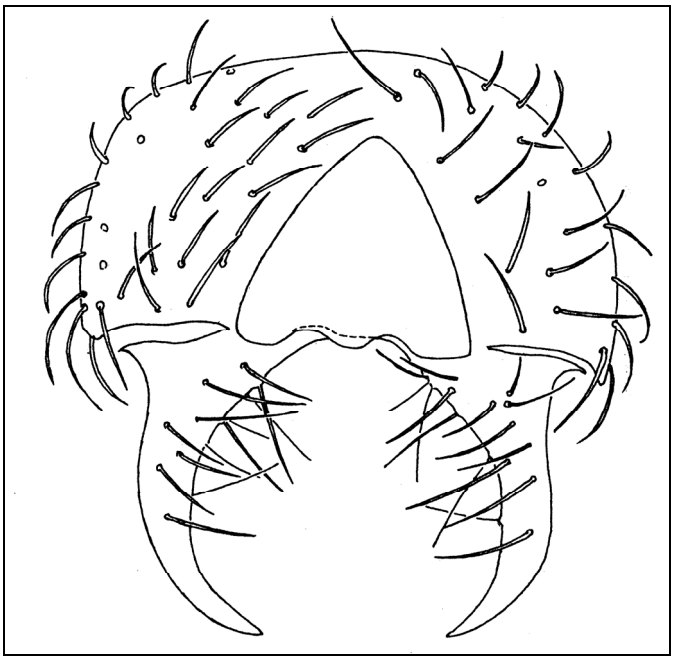

Figure 1. ***Scoliophthalmus civeleki*** sp. n. male, epandrium and surstyli.

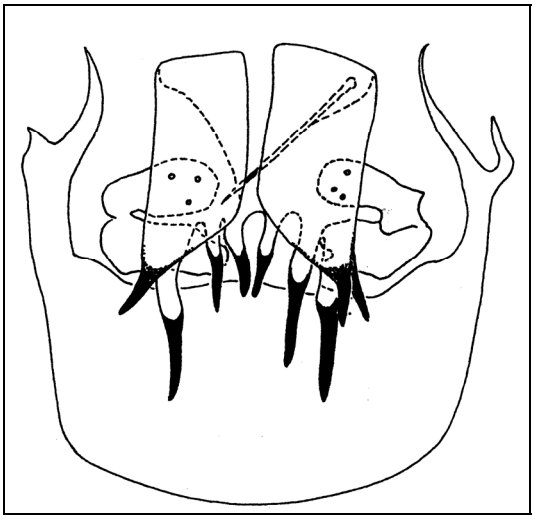

Figure 2. ***Scoliophthalmus civeleki*** sp. n. male, basiphallus, hypandrium and gonites.

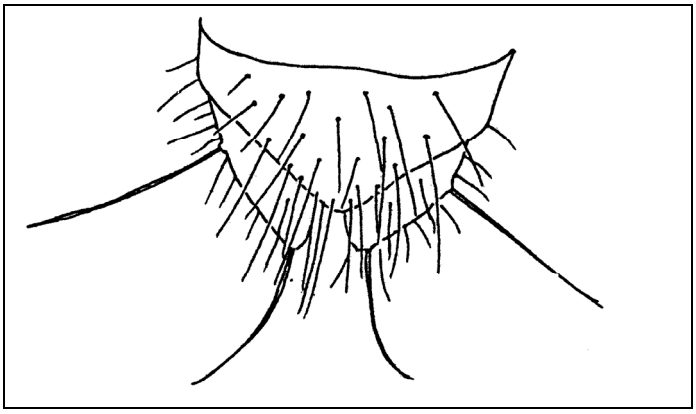

Figure 3. ***Scoliophthalmus civeleki*** sp. n. female, supraanal plate and cerci.

**Specific affinities**

In the structure of both male and female terminalia this species is very similar to ***S. formosanus*** (Duda), known from Japan, Taiwan and Sarawak (Kanmiya 1983), but in that species the costa extends to M1+2.

**Material**

Holotype; male Turkey: Muğla, Koyceğiz streamside grasses and ***Phragmites*** sp. 12. vii. 1997, J. C. Deeming; Paratypes; 1 male, 5 females same data; 1 female same data but coll. M. J. Ebejer. Holotype and paratypes in National Museum of Wales, U.K. apart from 1 male 1 female paratypes in collection of LEMT (Lodos Entomology Museum Turkey) Faculty of Agriculture, Ege University,

Bornova, Izmir, Turkey. All specimens are dry-mounted, some bearing large numbers of deuteronymph mites.

## Özet

**Türkiye'den** *Scoliophthalmus* **Becker (Diptera: Chloropidae)'un yeni bir türü**

Bu çalışmada, Chloropidae (Diptera) familyası, ***Scoliophthalmus*** Becker cinsine bağlı yeni bir tür, ***S. civeleki*** n. sp. Türkiye'den tanımlanmaktadır. Bu türün erginleri güneybatı Türkiye'de Muğla ili dere kenarı çayırlarından ve ***Phragmites*** sp. üzerinden toplanmıştır.

## Acknowledgement

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