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First record of *Quateiella* Cook from Europe, with description of a new species from Spain (Diptera, Scatopsidae).

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Quateiella inexpectata n. sp. from NE Spain (Gerona province) is described and figured. This is the first species of *Quateiella* found in Europe. The zoogeography of the genus is briefly discussed.

INTRODUCTION

The genus *Quateiella* was erected by Cook (1975) for 2 southern nearctic species previously included in the *quatei*-group of *Rhexoza* Enderlein (Cook, 1956). Subsequently the genus concept was extended by Souza Amorim (1982) who included 34 neotropical and nearctic species, 22 new ones and 12 previously placed in *Rhexoza*.

It was, therefore, unexpected to discover in material collected by my friend and colleague Christophe Dufour in summer 1986 in Spain a male Scatopsid apparently belonging to *Quateiella*. This was confirmed by comparison with type material of *Q. quatei* (Cook), type species of the genus. The unique male represents the first finding of *Quateiella* outside of America and adds a new genus to the european fauna. Furthermore, it belongs to a new species of the *quatei*-group which is described below.

DESCRIPTION

Quateiella inexpectata n. sp. (Fig.1–4)

Type locality: SPAIN, Gerona province: Cadaqués.
Type material: Holotype ♂ labelled: "ESPAGNE-Gerona, Cadaqués, 22.VI.1986, C. Dufour"/"S 3986"/"*Quateiella inexpectata* n. sp., Holotype ♂, J.-P. Haenni 1987". Type slide mounted in Swan's Berlese mounting medium (genital capsule unfortunately lost during final mounting), deposited in author's collection, Mus. Hist. Nat. Neuchâtel, Switzerland.
Etymology: inexpectata refers to the, from a zoogeographical point of view, surprising discovery of a species of this genus in Europe.

Diagnosis

Q. inexpectata belongs to the *quatei*-group of species by the shape of the genital capsule which is laterally compressed and bears a ventrally directed beak-like projection (Fig. 4). It is close to *quatei* (Cook) (nearctic) from which it differs in the strongly sclerotized, posteriorly broadly produced tergum 7 and the absence of remnants of tergum 8 (Fig. 2).
Male. 1.5 mm long, dark in general coulour.

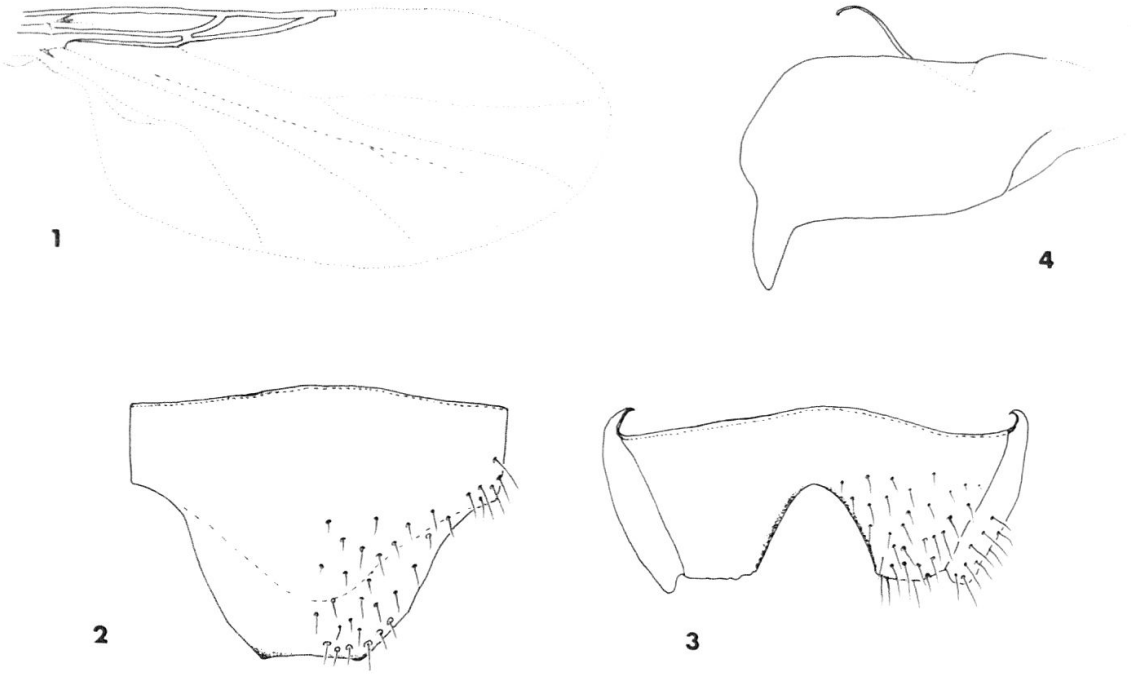

Fig. 1–4. *Quateiella inexpectata* n. sp. HOLOTYPE ♂. 1. Wing (pilosity omitted).–2. Tergum 7.–3. Sternum 7.–4. Genital capsule (diagrammatic side view, pilosity omitted).

Head black, feably shining; antennae dark brown, hardly longer than head is high, 10-segmented, with short and thick flagellar segments, much broader than long and bearing each a whorl of setae; last segment nearly as long as the 3 preceding ones, with 3 whorls of setae; palpi light brown, large, reniform, with an elongate sensorial pit at the inner apex; 2 campaniform sensilla on each side near the posterior margin of eye below level of antennae and 1 near the ocellar triangle.

Thorax black, feably shining, micropilose and setose, pleurae brown; spiracular sclerite elongate, twice as long as broad, with spiracle located dorsally; a row of 13 well developed supraalar setae, 7 subspiraculars, 3 lower epimeral.

Wings (Fig. 1) 1.3 mm long, hyaline, with anterior veins brown; membrane entirely covered with microtrichia, setae only on costa, radius and posterior margin of wing; r_3 ending slightly beyond middle of wing; costal segments ratio 3.2/1.5/5; stem of m half as long as fork.

Halters brown, with 2 setae on pedicel.

Legs brown except tarsi and a broad median stripe on hind femora and tibiae light brown; legs rather stout and short; hind tibiae with a transverse row of spiny setae on the inner apex.

Abdomen dark brown, 7-segmented; tergum 1 divided in 2 lateral sclerites, following terga nearly as long as broad, covered with a dense micropilosity arranged in a diamond-shaped micro-reticulation (under high magnification); pilosity sparse, nearly absent on basal terga; sterna 1–4 unsclerotized; tergum and sternum 7 nearly fused basally in a narrow basal ring; tergum 7 (Fig. 2) less sclerotized in basal median portion, produced medially in a broad truncate posterior process with acute, somewhat downwards curved corners; no remnants of

tergum 8; sternum 7 (Fig. 3) with a deep V-shaped posterior emargination and weakly sclerotized lateral lobes.
Genitalia (Fig. 4) black, typical of the *quatei*-group, strongly compressed laterally, with a dorsal beak-like process (which is downwards directed due to rotation of genitalia) and no ventral horns; penis yellow, filamentous, rather short, visible dorsally.
Female unknown.

Ecology

The single known male was taken at a window inside of a house situated on the edge of a rather neglected olive grove, more or less invaded by low bushes. Two females of another Scatopsid, the cosmopolitan anthropogenic *Coboldia fuscipes* (Meigen), were caught together with that male.
Distribution: known only from type locality in NE Spain, along the Mediterranean Sea.

DISCUSSION

In COOK's (1972) key to the palaearctic Swammerdamellini *Quateiella inexpectata* would run to *Rhexoza* from which it can easily be distinguished by the shape of tergum 7 and male genital capsule. It differs from *R. radiella* (ENDERLEIN), known from female from Tunesia (not examined), in alar characters: wing length/wing width = 2.4 in *Q. inexpectata* and 2.07 in *radiella* after COOK (1972); costal segments ratio = 3.2/1.5/5 in *inexpectata* and 4/2/5 in *radiella* after ENDERLEIN (1926).

The presence of *Quateiella* in southern Europe is surprising from a zoogeographical point of view. Even though there is a slim chance that larvae of *inexpectata* were introduced into southern Europe in soil or plants, it seems much more likely that *inexpectata* is a palaearctic species which was overlooked up to now. This is probably also true for many other Scatopsidae.

In his cladistic analysis of the family Scatopsidae SOUZA AMORIM (1982) transferred several species of *Rhexoza* to *Quateiella,* stating that the former was a paraphyletic group including both primitve and much evolved taxa of the tribe Swammerdamellini of COOK (1981). After the former author (loc. cit.) this tribe should be merged with the Scatopsini, and in his concept *Quateiella* includes evolved Scatopsini, with 34 neotropical and nearctic species in 4 species-groups, the *panamensis-, quatei-, similis-* and *lobata*-groups. Together with *Hawomerslaya* (Australian) and *Akorhexoza* (southern Nearctic and Neotropical) *Quateiella* is regarded by SOUZA AMORIM (loc. cit.) as a Gondwanian group (with a secondary extension into the Nearctic) whose sister-group would be the Laurasian *Coboldia* (cosmopolitan, but probably primarily Holarctic). According to this hypothesis the segregation into these two branches would coincide the break-up of Pangea. This hypothesis has to be rejected because of the discovery of *Quateiella* in Europe. This is also supported by SOUZA AMORIM (in litt.) who is inclined now to restrict *Quateiella* to the *quatei-* and *panamensis*-groups.

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RÉSUMÉ

Sur la présence du genre Quateiella en Europe, avec la description d'une espèce nouvelle (Diptera, Scatopsidae). – *Quateiella inexpectata* n. sp., du Nord-Est de l'Espagne (province de Gérone), première espèce du genre trouvée en Europe, est décrite et figurée. Cette découverte est brièvement discutée d'un point de vue zoogéographique.

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