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About the genus *Sumlinia* Cassola & Werner, 2001 [1]

(Coleoptera: Cicindelidae)

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Summary: Based on recently collected specimens from the Cordoba province, Argentina, the female of a poorly known species, *Cicindela (Cylindera) hirsutifrons* Sumlin, 1979, is described, and the species is placed in the genus *Sumlinia* Cassola & Werner, 2001, created for another poorly known species, *S. halophila* (Sumlin, 1979), from the very same area. In contrast, placement in the genus *Cylindera* Westwood, 1831, subgenus *Plectographa* Rivalier, 1954, is confirmed for a third species, "*Cicindela*" *eugeni* Castelnau, 1835, whose elytral markings more or less resemble those of *S. halophila*. Moreover, information on the habitats of these species is provided.

Zusammenfassung: In neueren Aufsammlungen aus der Provinz Cordoba (Argentinien) fand sich das bisher unbekannte Weibchen der kaum bekannten Art *Cicindela (Cylindera) hirsutifrons* Sumlin, 1979, das hier beschrieben wird. Gleichzeitig wird die Art in die Gattung *Sumlinia* Cassola & Werner, 2001 gestellt, die für eine ebenfalls aus dieser Region beschriebenen Art, *Cicindela (Cylindera) halophila* Sumlin, 1979, begründet wurde. Weiterhin wird vermutet, dass „*Cicindela*" *eugeni* Castelnau, 1835 in die Gattung *Cylindera* Westwood, 1831 [Untergattung *Plectographa* Rivalier, 1954] gehört, obwohl die Elytrenzeichnung sehr der von *S. halophila* ähnelt. Informationen zu den Habitaten dieser Arten werden gegeben.

[1] Studies of Tiger Beetles – CXXVIII

Introduction

In a recent paper (CASSOLA & WERNER, 2001) a new genus, *Sumlinia*, was created for a single, poorly known, Argentinian species, *Cicindela (Cylindera) halophila*, described by SUMLIN (1979) from the Cordoba province, and mainly characterized by the 4-haired labrum, non-microserrate apical margins of elytra, and the unusual morphology of the inner sac of male aedeagus. Further specimens, recently collected by me and my wife Paola at and near the type locality (Cordoba: Ruta 60, km 895.5, 6.5 km S Villa Lucio Mansilla, Salinas Grandes, 29°50'58.0S 64°40'10.7W, 18.I.2002, F. & P. CASSOLA leg.; Catamarca: Ruta 157, 28.4 km S of Recreo, 29°30'04.1S 64°55'41.5W, 19.I.2002, F. & P. CASSOLA leg.), have fully confirmed such a generic attribution.

During our trip to Argentina, an attempt was also made to collect another poorly known species, "*Cicindela*" *eugeni* Castelnau, 1835, also described from "Cordova", at the only exact locality presently known (50 km NE of Santiago del Estero: CASSOLA & WERNER 2001); but unsuccessfully, as heavy showers unfortunately started just when in the area. However, subsequent examination of the single female specimen, from the mentioned locality, owned by the Snow Entomological Museum, University of Kansas, USA (SEMK), has showed this species, despite the lack of a male specimen, to be a *Cylindera* species of the subgenus *Plectographa* Rivalier, 1954. The character state combination of 6-haired labrum (fig. 1e), partially setose elytra, and pattern of elytral maculation (fig. 1f), is diagnostic. Glabrous vs. pubescent genae easily help to distinguish *C. (P.) eugeni* from *S. halophila*, despite their similar elytral markings (HORN 1915, pl. 20, fig. 11; SUMLIN 1979, fig. 4a).

A third species, "*Cicindela*" *hirsutifrons* , also described by SUMLIN (1979) based on a single male specimen from the same type locality as *halophila*, was also luckily rediscovered and collected (Cordoba: Ruta 60, km 895.5, 6.5 km S Villa Lucio Mansilla, Salinas Grandes, 29°50'58.0S 64°40'10.7W, 18.I.2002, F. & P. CASSOLA leg.), thus allowing me to describe the female and briefly integrate SUMLIN's description:

Sumlinia hirsutifrons (Sumlin, 1979)

A medium-sized species, predominantly metallic cupreous, with a broad, ivory-white, complete, marginal band of elytra, superficially resembling the Australian species *Rivacindela cardinalba* (Sumlin, 1987) or *R. shetterlyi* (Sumlin, 1997). This species is easily recognizable by the 4-

haired, ivory-white labrum (fig. 1b) and the thickly setose forehead, genae, front and side parts of pronotum, and underside. The pronotum is short, transverse, distinctly wider than long, with the disc of middle and hind lobes glabrous. The elytra are rather flattened above, without microserrate apical margins, and the whole body, in lateral view, appears to be quite crushed. Among over thirty specimens collected, a single specimen only was found to have the same broadly confluent elytral maculation as the one figured by SUMLIN for the male holotype (1979, fig. 7a), whereas all the other specimens exhibit a short, obliquely discending, middle spur on the elytral disc (fig. 1a). Unlike males, females lack the densely setose segments 3 and 4 of the antennae, such a character probably being a non-genitalic mating structure of the male only (CASSOLA 1983).

Fig. 1. *Sumlinia hirsutifrons* (Sumlin, 1979), female specimen from Salinas Grandes, 6.5 km S Villa Lucio Mansilla, Cordoba prov., Argentina: left elytron (a), labrum (b); male specimen from same locality: aedeagus (c), inner sac of aedeagus (d). *Cylindera (Plectographa) eugeni* (Castelnau, 1835), female specimen from 50 km NE of Santiago del Estero, Santiago del Estero prov., Argentina (SEMK): labrum (e), right elytron (f). Scale-lines: 1 mm.

The aedeagus (fig. 1c) is slender, tapering, with a rounded, blunt apex. The inner sac of aedeagus (fig. 1d) shows a simple but rather long flagellum, whose thick basal part describes just one anti-clockwise coil, almost perpendicular to the plane of the sac, before turning up towards the apex; moreover, a large arciform sclerite, some stylet-shaped, narrow, longitudinal sclerites, and a narrow, ribbon-like, U-shaped sclerite on the ventral basal side of the sac, are noticeable. Such a kind of anatomical ar-

chitecture has nothing to do with the genus *Cylindera* Westwood, 1831 (sensu RIVALIER 1950, 1954), and it strongly recalls, instead, that of *S. halophila*. Thus *hirsutifrons*, despite its larger size and distinctive appearence, is conclusively considered to be a second member of the genus *Sumlinia*, as it had been supposed previously (CASSOLA & WERNER 2001).

Fig. 2. Habitat of *Sumlinia halophila* (Sumlin, 1979) at Salinas Grandes, 6.5 km S Villa Lucio Mansilla, Cordoba, Argentina) (Photograph by the author, January 2002).

Ecology

Despite sympatrically living in northern Cordoba and southern Catamarca provinces, and even sometimes syntopically occurring in the very same spot, the species discussed above appear to inhabit different primary habitats. Both *S. halophila* and *S. hirsutifrons* were found at Salinas Grandes (29°50'58.0S, 64°40'10.7W), but the former was much more abundant near the edge of the dried lake, among or near the sparse low scrubby vegetation (fig. 2), while the latter was uniquely found far inside the dry salt flats (fig. 3). At 28.4 km S of Recreo, in the Catamarca province (29°30'04.1S-64°55'41.5W), near the edge of a watered branch of a

brackish half-dry lake, *S. halophila* was found while syntopically occurring with *Cylindera (Plectographa) siccalacicola* (Sumlin, 1979) (CASSOLA & WERNER 2001), but this time the *halophila* specimens were active in the driest parts of the flats, and *C. siccalacicola*, despite its name, seemed to prefer the wet muds not far from water.

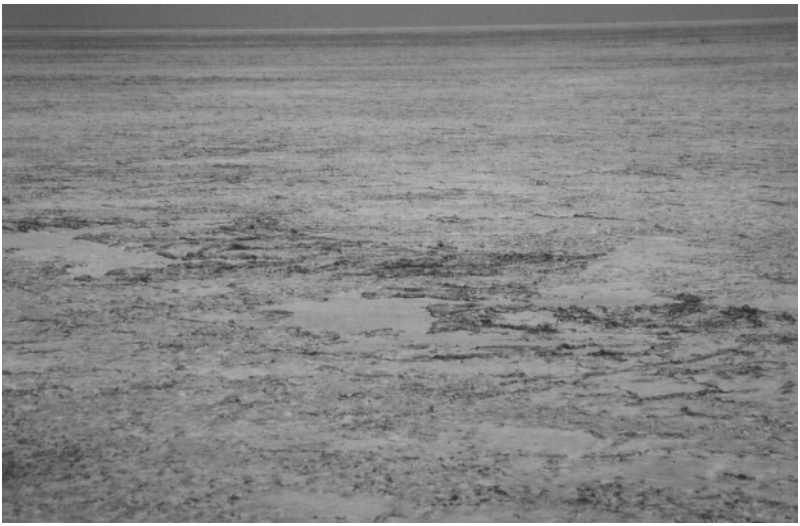

Fig. 3. Habitat of *Sumlinia hirsutifrons* (Sumlin, 1979) at Salinas Grandes, 6.5 km S Villa Lucio Mansilla, Cordoba, Argentina) (Photograph by the author, January 2002).

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