Zeitschrift: Mitteilungen der Schweizerischen Entomologischen Gesellschaft = Bulletin de la Société Entomologique Suisse = Journal of the Swiss Entomological Society

Band: 66 (1993)

Heft: 1-2

Artikel: Rediscovery of Dicranomyia (Glochina) mediterranea Lackschewitz & Pagast, 1942 (Diptera, Limoniidae) in Spain, and neotype designation

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DOI: https://doi.org/10.5169/seals-402502

MITTEILUNGEN DER SCHWEIZERISCHEN ENTOMOLOGISCHEN GESELLSCHAFT
BULLETIN DE LA SOCIÉTÉ ENTOMOLOGIQUE SUISSE
66, 9 – 13, 1993

Rediscovery of *Dicranomyia (Glochina) mediterranea* LACKSCHEWITZ & PAGAST, 1942 (Diptera, Limoniidae) in Spain, and neotype designation

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D. (G.) mediterranea LACKSCHEWITZ & PAGAST, 1942 is redescribed, and a neotype is established; some comments on its relationships and ecology are given.

Keywords: *Dicranomyia (Glochina) mediterranea*, Limoniidae, neotype, Spain, Italy

INTRODUCTION

In examining the limoniid material kindly placed at my disposal by JAVIER BLASCO-ZUMETA (Pina de Ebro, Zaragoza, Spain), I have noticed a *Dicranomyia* species of the subgenus *Glochina* with very particular characteristics of genitalic structure; this species is very close to *D. (G.) hansiana* STARY & GEIGER, 1985, *D. (G.) bangerteri* (MENDL, 1974), *D. (G.) cretica* MENDL, 1974. After accurate examination of specimens and type-material of these species, as well as a revision of the literature on *Glochina* species, I came to the conclusion that the Spanish specimens belong to *D. (G.) mediterranea* LACKSCHEWITZ & PAGAST, 1942. Until now, this species was poorly known. The original description (LACKSCHEWITZ & PAGAST, 1942: 35-36) lacks detailed information about distribution, collecting dates and localization of type-material. The type of *D. (G.) mediterranea* was found neither in the collection LACKSCHEWITZ at the Museum für Naturkunde at Humboldt-University in Berlin, or in material revised by LACKSCHEWITZ at the Naturhistorische Museum in Vienna (MENDL, 1974). The figure of *D. (G.) mediterranea* in LACKSCHEWITZ & PAGAST (1942, fig. 67) is not very accurate, but the general structure of the drawn male genitalia is very similar to that of the Spanish material. LACKSCHEWITZ & PAGAST (1942, 35-36) give the following description of *mediterranea* : "Flügel schmal, hyalin mit dunkelbraunen Adern und blassem Randmal", "Basalglied... mit ovalem Ventralvorsatz, am distalen Innenwinkel mit 2 kleinen, warzenförmigen, mit Borsten besetzten Höckern", "... das lange Rostrum..., das in seiner Mitte zwei gerade, divergierende, am Grunde nicht verschmolzene Dornen trägt", "Gonapophysen mit ganz blassen, stumpf endigenden Fortsätzen". This description fits the Spanish material at my disposal. I assume that the conditions required by article 75 of International Code on Zoological Nomenclature for neotype designation are fulfilled.

DESCRIPTION

In most of its external characteristics, *mediterranea* is very similar to *hansiana* STARY & GEIGER,1985. Body coloration dark brown with grey pruinosity. Body length 8 mm (♂) - 9 mm (♀), wing length 9 mm.

♂: Head brown, heavily grey pruinose. Palpi and antennae dark brown. Proximal flagellomeres suboval, distal ones oval.

Thorax brown, grey pruinose. Praescutum with a brownish longitudinal stripe. Scutellum yellowish brown, other dorsal part of thorax brown with grey pruinosity. Pleurae dark brown, with silver pruinosity. Areas around bases of wings yellowish.

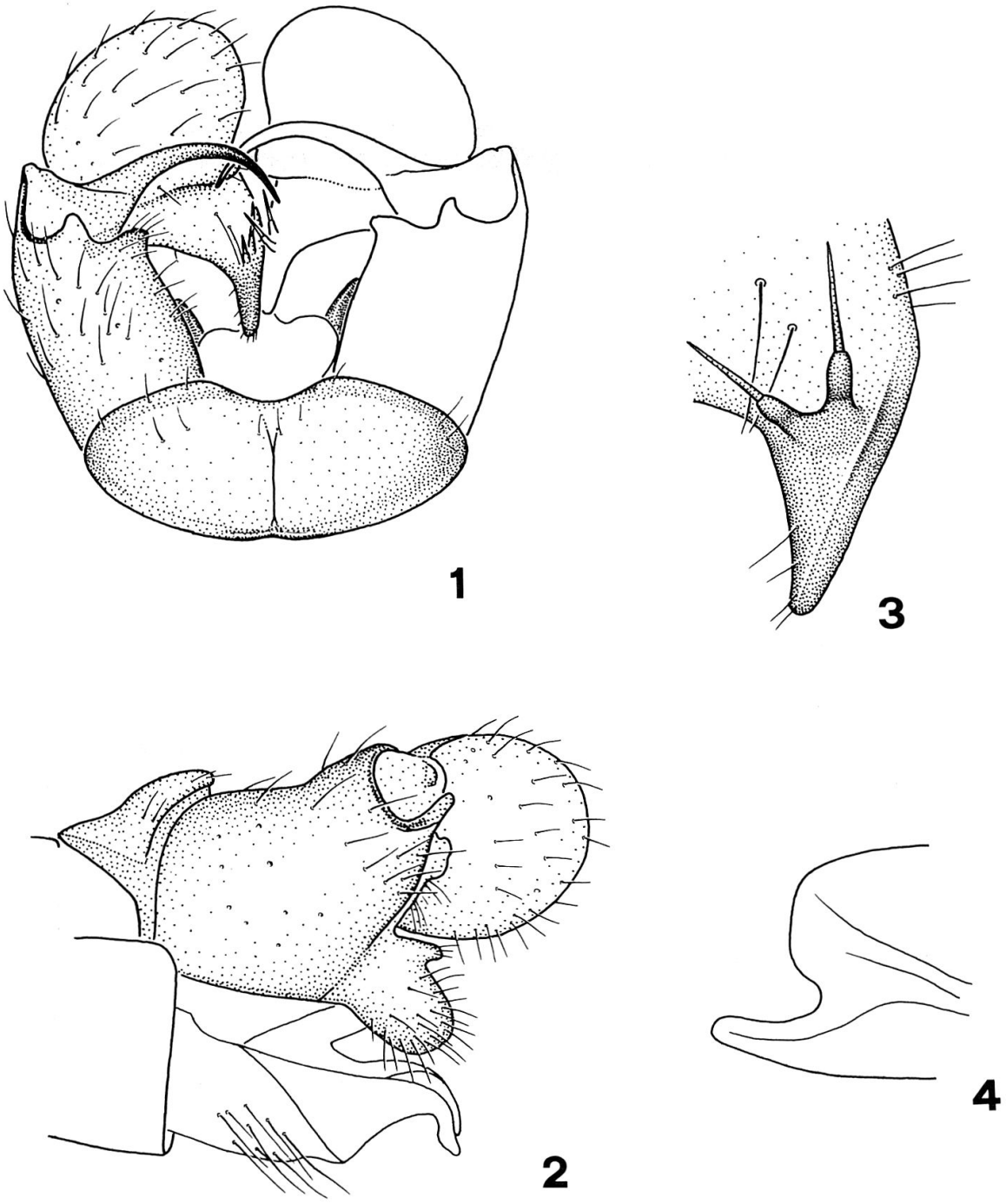

Fig. 1-4. *Dicranomyia (Glochina) mediterranea* LACKSCHEWITZ & PAGAST, 1942: male genitalia. Neotype, Retuerta de Pina, Pina de Ebro, Zaragoza, Spain. 1-2: general view, dorsal (1), lateral (2). 3: rostrum, dorsomedial view. 4: paramere.

Wings infuscated, venation brown. Stigma indistinct. Halteres yellowish, knob white. Distal half of coxae and trochanteres yellowish. Proximal part of femora 1 yellowish, distal part brown. Femorae 2 and 3 yellowish brown throughout. Other parts of legs dark brown.

Abdomen brown, less pruinose than thorax. Male genitalia (figs 1-4) white brownish. 9th tergite with a small, shallow, V-shaped emargination on posterior margin. Gonocoxite with a small, short and poorly setiferous tubercle on distal dorsomesal angle, and with another one, smaller, situated more ventrally on mesal face of gonocoxite. Ventromesal lobe of gonocoxite more or less cylindrical, broadly rounded at apex, with a hairy brown lobule, near base. In lateral view, the ventromesal lobe is directed ventrally oblique to the gonocoxite. Outer gonostyle (OG) relatively short, as long as the gonocoxite, with a lobe on dorsal side. Rostrum nearly as long as the main body of OG. It is obtuse, dark brown at apex, quite strong bent inwardly in dorsal view. Rostral spines straight, brown, strongly divergent, fore one shorter than hind one, situated more or less one behind the other, at mid-length of the rostrum, on distinct and unfused basal tubercles. Inner gonostyle (IG) quite long, slender, curved, ending in an acute black tip. Parameres as in fig. 4. Penis short and stout.

MATERIAL

Neotype♂ (conserved in alcohol 70%): Retuerta de Pina, Pina de Ebro (Zaragoza, Spain). UTM-coordinates: 30 T YL29. 360 m. 17.10.90 (leg. JAVIER BLASCO-ZUMETA) in Musée d'Histoire naturelle, Neuchâtel (MHNN).

Other material: 2♂♂, 1♀ 18.9.90, 3♂♂ 23.9.91, 4♂♂, 2♀♀ 9.10.91, 1♂ 17.10.90 , 4♂♂ 26.10.91 : material with same data as the neotype, and conserved in alcohol 70% in the MHNN, except 1♂ 17.10.90 (coll. H. MENDL, Kempten), 1♂ 26.10.91 (coll. BLASCO-ZUMETA, Pina de Ebro) and 1♂ Sardegna meridionale, parte centrale, rio Tiny, 22.11.1972, leg. F. HARTIG (coll. J. STARY, Olomouc, ex. coll. H. MENDL, Kempten).

All material collected by J. BLASCO-ZUMETA was captured with Moericke and Malaise traps.

RELATIONSHIPS

In general appearance and in most of its external characteristics, *D. (G.) mediterranea* is very similar to other European *Glochina* species, but particularly to *D. (G.) hansiana* STARY & GEIGER, 1985, *D. (G.) bangerteri* (MENDL, 1974), *D. (G.) cretica* MENDL, 1979. More details of differential diagnosis are outlined in tab.1.

DISTRIBUTION

LACKSCHEWITZ & PAGAST (1942) give only the following information on the distribution of the species: Algeria, Europa merid. OOSTERBROEK *et al.* (in press) give the following distribution: Algeria, Italy, Albania. This last information is taken from GEIGER (1986). After verification, I find that there are no data confirming the presence of *D. mediterranea* in Albania. Spain (Ebro valley) and Italy (Sardinia) are therefore the only certified regions where *D. mediterranea* is reported from.

Tab. 1. Principal characters to distinguish the males of the 4 *Glochina* species

mediterranea	*hansiana* STARY & GEIGER,1985	*bangerteri* MENDL (1974)	*cretica* MENDL,1974
wing size 9 mm stigma indistinct general coloration dark brown grey dusted	wing size 7-9 mm stigma brown well marked general coloration brown, grey dusted, but less than *mediterranea*	wing size 7.5 mm stigma brown very pale general coloration brown	wing size 7 mm stigma brownish, very pale general coloration brown
setiferous tubercles on gonocoxite (GX) small, elongated, ventral one somewhat stouter	setiferous tubercles of GX essentially similar in shape relatively short	dorsal tubercles of GX longer and more slender than the ventral one	GX without setiferous tubercles
ventromesal lobe of GX broadly rounded at apex, directed ventrally oblique to the GX	ventromesal lobe of GX very large, directed ventrally perpendicular to the GX	ventromesal lobe of GX similar to that of *mediterranea* but more conically narrowed distally	ventromesal lobe of GX very similar to that of *mediterranea*
IG quite long, fine, curved with a darkened apex	IG relatively short, only moderated curved, dark brown	IG similar to that of *hansiana*, but with only the apex dark brown	IG bent to 90°, dark brown
rostrum long, with apex brown, quite strong bent in dorsal view	rostrum long, without darkened apex, only moderately bent in dorsal view	rostrum shorter than that of *mediterranea*, blackened distally, strongly bent in dorsal view	rostrum long, without darkened apex, quite strong bent in dorsal view
fore rostral spines shorter than the hind one, both only slightly darkened, placed at mid-length of rostrum, on distinct and unfused basal tubercles, strongly divergent	rostral spines subequal in length, only slightly darkened, placed beyond mid-length of rostrum, close together on distinct partly fused basal tubercles, moderately divergent	fore rostral spine somewhat shorter than the hind one, shifted on dorsal face of rostrum. Spines strongly blackened, placed about mid-length of rostrum on unfused basal tubercles, smaller than those of *mediterranea*, strongly divergent	rostral spines subequal in length, only slightly darkened, slightly divergent, placed at mid-length of rostrum on a common tubercle

ECOLOGY

The collecting site in Spain is located in the Monegros region, in the central part of the Ebro valley. The climate is arid continental, with temperature ranging yearly from - 10°C to more than 40°C, low rainfall (200-400 mm) and frequent NW or SW winds. The Monegros region is one of the most desert-like areas in the Iberian Peninsula, and its vegetation resembles that of the North African steppes. Juniper woods (*Juniperus thurifera* L.) represent the climax, even if man has reduced the surface covered by trees. The forest is a species-poor community characterized by the presence of *Rhamnus lycioides* L., *Ephedra nebrodensis* TINEO ex GUSS and *Asparagus acutifolius* L. besides *Juniperus thurifera*. Its main configurations are open forest steppe with scattered trees. The main vegetation communities, described in BRAUN-BLANQUET & BOLOS (1957) are steppe grasslands and dense dwarf scrub. Soils are mostly gypsum, with some marl and clay.

ACKNOWLEDGEMENTS

My thanks to J. BLASCO-ZUMETA (Retuerta de Pina) for the material of *D. mediterranea* and for the description of the habitat of Retuerta de Pina, to Dr. H. MENDL (Kempten) and Dr. J. STARY (Olomouc) for valuable comments, to Y. BORCARD (Neuchâtel) for the drawing of figures, and to D. SHIELS (Marin) for checking the English text.

RÉSUMÉ

D. (G.) mediterranea LACKSCHEWITZ & PAGAST, 1942 est redécrite; un néotype est établi. L'article contient quelques commentaires sur les relations de cette espèce avec d'autres espèces du sous-genre *Glochina* et sur son écologie.

LITERATURE

BRAUN-BLANQUET, J. & BOLOS, O. 1957. Les groupements végétaux du bassin moyen de l'Ebre et leur dynamisme. *An. Est. Exper. Aula Dei, Zaragoza 5(1-4):*1- 266 .

GEIGER, W. 1986. Index to the writings on western palaearctic Limoniidae. Publications 1900-1982. I. Subfamily Limoniinae. *Bull. romand Ent. 4:* 3-121.

LACKSCHEWITZ , P. & PAGAST, F. 1942. 145.- Limoniidae. *Die Fliegen der palaearktischen Region 3(5):* 1-65

MENDL, H. 1974. Neue Limoniinen aus Italien. 2. Beitrag zur Kenntnis der Limoniinen-Fauna Italiens. *Fragm. Entomol. 9(4):* 205-224.

OOSTERBROEK, P., SAVCHENKO, E.N., STARY. J., in press. Catalogue of Palaearctic Diptera. Fam. Tipulidae, Cylindrotomidae, Limoniidae.

(received October 9, 1992; accepted November 24, 1992)