

Notes on two species of Sphecidae from Senegal and Yemen (Hymenoptera)

R. T. SIMON THOMAS

SIMON THOMAS, R. T., 1995. NOTES ON TWO SPECIES OF SPHECIDAE FROM SENEGAL AND YEMEN (HYMENOPTERA). – *ENT. BER., AMST.* 55 (11): 182-184.

Abstract: *Lithium cicatrix* is reported new for Senegal, and the female of this species is described. *Harpactus laevis aegyptiacus* is new for Senegal and Yemen.

Institute for Systematics and Population Biology (Zoological Museum), Department of Entomology, University of Amsterdam, Plantage Middenlaan 64, 1018 DH Amsterdam, The Netherlands.

Introduction

The sphecids from Senegal were obtained during a research program by F.A.O. (Everts, 1990) with malaise traps set up 30 km south east of Richard Toll, longitude 15°30' west and latitude 17°30' north at an altitude of approximately 50 m. The malaise traps were effective from 8.viii till 9.x.1989; aerial treatment was carried out from 5 till 12 September 1989.

The material from Yemen was mostly collected by Mr. A. van Harten, Yemeni-German Plant Protection Project, in Sana'a, longitude 44°11' east and latitude 15°16' north at an altitude of 2350 m.

The insects are deposited in the collections of the Institute for Systematics and Population Biology (Zoological Museum), Amsterdam, the National Museum of Natural History, Leiden, the Entomological Laboratory, Agricultural University, Wageningen, all in The Netherlands, and the Provincial Museum of Alberta, Edmonton, Canada.

Lithium Finnermore

Finnermore (1987) described the genus *Lithium* with a single species *L. cicatrix* from Mali.

Male *L. cicatrix* differs from other Pseninae by having a pair of deep comma-shaped grooves on the upper frons on each side of the

frontal carina (fig. 2). The combination of a very short petiole, an unsculptured hypopimeral area, and the presence of an omaulus distinguish the genus from all other Psenini. The apical flagellomeres of the male have projections at the apices beneath like in *Ammopsen* (fig. 1).

Lithium cicatrix Finnermore

(figs 1-4)

Material

Senegal, 25-35 km sud de Richard Toll, leg. H. v. d. Valk c.s., piège malaise, 231 ♀ and 39 ♂. The real flying period could not be determined as the wasps were collected during the whole period the traps were in use.

Finnermore (1987) described the male in detail but only gave a few characters of a heavily damaged female. A more complete description of a female from Senegal follows.

Description

Female 4.5 mm. Black; palpus, tegula, and pronotal lobe brown; mandible brownish, at base blackish and apically red ferruginous; scape dark brown with ferruginous terminal spot; flagellomeres I-VIII interiorly greyish with apical dirty white ring, exterior brownish; flagellomeres IX and X dirty white. Second tergite with dark brown apical margin; apical half of pygidial plate ferruginous.

Maxillary palpus with six segments, labial palpus with four. Mandible monodentate. Clypeus covered with silvery pubescence, hiding structure of integument, and apically nearly straight, angles softly rounded. Apex of labium with row of fine straight hairs. At basal part of clypeus a stripe connecting the inner orbits of the compound eyes. A prominent tubercle between the antennal sockets; without mid carina below anterior ocellus. POL : OOL = 0.8, SOL : OOL = 0.3. Posterior ocelli behind the imaginary line interconnecting posterior corners of eyes. Compound eyes nearest to each other in the middle, relative distances from top to bottom 17 : 14 : 19 (fig. 3). Antenna normal (fig. 4). Pedicel wider than long. Flagellomere I equally long and wide at apex, flagellomeres II-IX somewhat longer than wide, last flagellomere conical and one and a half time as long as wide. Frons above antennal sockets and vertex shining, punctulated.

Pronotum along suture with mesonotum with long silvery hairs. Scutum shining and punctulated, points much farther apart than their own diameter. Points on scutellum with hairs in longitudinal direction. Metanotum with large points close together, and some depressed hairs. Propodeum twice as wide as long (25 : 13), reticulated, its dorsal face separated from the sides by a carina.

Tergites and sternites shining and very finely punctulated. Sides of tergites II-VI with lateral pubescence. Pygidial area U-shaped and twice as long as wide with depressed hairs; apical half ferruginous.

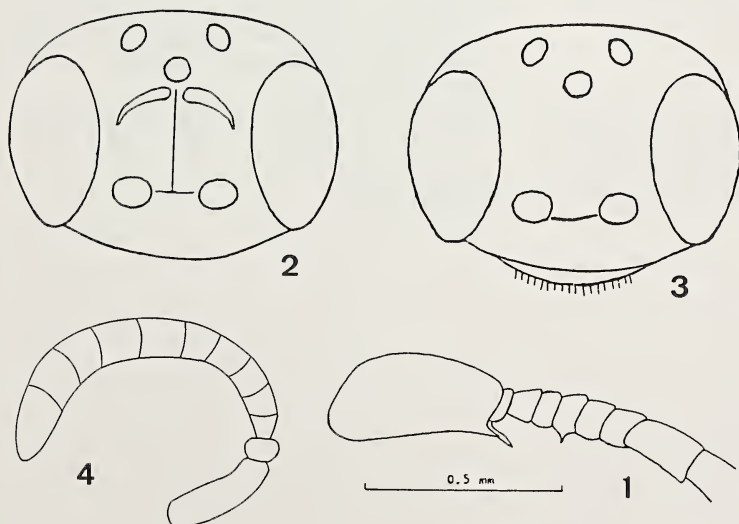
Wings hyaline with brown veins, covered with some small hairs.

Tibia I and II light brown; tibia III light brown with internal brown spot. All tarsi dirty white. Exterior side of tibia III with abundant pubescence and two rows of setae; exterior side of tibia II and basitarsus with short setae; tibia I without pubescence or setae. Mid basitarsus normal as contrasted with mid basitarsus of male which is projecting ventrally under second tarsomere.

Length of the females varies from 4-6 mm. No difference in structure or colour was found between the described female and the other specimens.

Variation

The holotype male of *L. cicatrix* from Mali has the comma-shaped groove (fig. 2) with a distinct angle medially. Most male specimens from Senegal have a more flowing form of the comma-shaped groove, rarely the form is somewhat angled. The angled form of the Mali male can be seen as one end of the variation in a single species.



Figs. 1-4. *Lithium cicatrix*. 1, Flagellum of male; 2, facial portrait of male; 3, facial portrait of female; 4, flagellum of female.

The frontal carina present in the Mali specimen is evanescent or absent in the animals from Senegal. The male from Mali is more robust in general appearance (Finnamore, personal communication).

***Harpactus* Shuckard**

Harpactus Shuckard is the valid name for the genus which was incorrectly named *Dienoplus* Fox (Pulawski, 1985). Species of this genus are mostly found in the Palaearctic region (41 species). In the Nearctic region 5 species are known, in the Ethiopian region 7, and in the Indian area 3. Prey consists of juvenile and adult Cicadellidae and Cercopidae. The nests are made in sandy soil.

***Harpactus laevis aegyptiacus* (Schulz)**

Material

Senegal, 25-35 km sud de Richard Toll, leg. H. v. d. Valk c.s., piège malaise, 10 ♀ and 33 ♂, collected between 18. viii. and 6.x.1989. Yemen, Sana'a and Al Kowd, mal. trap, A. van Harten, 4 ♀, collected iii.1992 and 15-28.ii.1993.

The species *Harpactus laevis* (Latreille) is known from Europe, the Middle East, and Manchuria. The subspecies *H. l. saharae* (Giner Mari, 1945) is known from Spanish Sahara, and the subspecies *H. l. aegyptiacus* (Schulz, 1904) was only known from Egypt.

Comparative notes

The first tergite of *H. l. saharae* is black as in *H. l. laevis* from southern Europe. *Harpactus l. aegyptiacus* has a large ivory white spot on

the lateral sides of the first tergite, the ivory spots are connected by a narrow apical ivory band. The specimens from Senegal only differ slightly in colour from the Egyptian specimens. While a large black spot covers the vertex and slightly more in the Egyptian specimens, a much smaller spot not exceeding the triangle of the ocelli is seen in the Senegalese. All legs of the Senegal specimens are completely red yellow, the external side of the legs of the Egyptian specimens have dark brown stripes.

Harpactus l. laevis and *H. l. saharae* have a yellow spot on the clypeus and along the ventral inner side of the compound eye. These spots are ivory white in *H. l. aegyptiacus* and also in the Senegalese specimens.

The specimens collected in Yemen do not differ in colour and characteristics from *H. l. aegyptiacus*.

References

- EVERTS, J. W., 1990. *Environmental effects of chemical locust and grasshopper control*: 1-277. F.A.O. of U.N., Rome.
- FINNAMORE, A. T., 1987. A new genus and species of Psenini wasp from Africa and a key to genera (Hymenoptera: Pemphredonidae: Pseninae). — *Can. Ent.* 119: 1081-1094.
- GINER MARI, J., 1945. Resultados científicos de un viaje entomológico al Sáhara español y zona oriental del Marruecos español. Familias Sphecidae y Mutillidae (sensu lato). (Hym. Sphec. y Mut.). — *Eos, Madr.* 20: 351-385.
- PULAWSKI, W. J., 1985. *Harpactus* Shuckard, 1837, the valid name for the genus currently called *Dienoplus* Fox, 1894 (Hymenoptera: Sphecidae). — *Syst. Entomol.* 10: 59-63.
- SCHULZ, W. A., 1904. Ein Beitrag zur Faunistik der paläarktischen Spheciden. — *Z. Ent.* 29: 90-102.

Accepted 1.vi.1995.