

## DENISIA CURLETTII SP. N. FROM TUNISIA

(LEPIDOPTERA: OECOPHORIDAE)

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A new species of Oecophoridae is described from Tunisia: *Denisia curlettii* sp. n. The external characters and genitalia are figured, and the biology is briefly discussed.

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Key words. – Lepidoptera, Oecophoridae, Denisia, Tunisia, new species.

In the genus *Denisia* Hübner, 1825 (Oecophoridae), 18 species are currently recognized. The genus has its main distribution in Europe, but several species occur in the Near-East. There are two species known from North and Central Asia and one species from North America. Below we describe the first species from Africa.

Last year the junior author received three specimens of an unknown Microlepidoptera species from Mr. Traugott-Olsen, (Marbella, Spain). Mr. Traugott-Olsen concluded on the basis of wing venation and genitalia that it could possibly belong to the Momphidae. The scaling of the head and the structure of the male genitalia in combination with the venation identify the moths as belonging to the Oecophoridae. Both families belong to the large and very diverse superfamily of the Gelechioidea.

Leraut (1984) described the monotypic genus *Buvatina* based on a single male specimen, *Buvatina tineiformis*. *Buvatina* is distinguished from *Denisia* by the following characters: forewing with veins R4 and R5 completely merged; the short and porrect labial palpa and the long saccus. The species described here has the upper margin of the valvae concave like in *Buvatina*, but the venation of the forewing (fig. 5) shows a forked position of R4 and R5. This in combination with the long and upcurved labial palpa and the short saccus led us to place the new species in *Denisia*.

### Checklist of *Denisia* Hübner, 1825

This is a provisional list compiled from literature, since we did not have the opportunity to examine all the species.

Type species: *Phalaena Tinea stipella* Linnaeus, 1758

1. *Denisia albimaculea* (Haworth, 1828)
2. *Denisia aragonella* (Chrétien, 1903)
3. *Denisia augustella* (Hübner, 1796)
4. *Denisia coeruleopicta* (Christoph, 1888)
5. *Denisia curlettii* sp. n.
6. *Denisia fiduciella* (Rebel, 1935)
7. *Denisia graslinella* (Staudinger, 1871)
8. *Denisia luctuosella* (Duponchel, 1840)
9. *Denisia luticiliella* (Erschoff, 1877)
10. *Denisia muellerrutzi* (Amsel, 1939)
11. *Denisia nubilosella* (Herrich-Schäffer, 1854)
12. *Denisia osthelderi* (Rebel in Osthelder, 1936)
13. *Denisia pyrenaica* Leraut, 1989
14. *Denisia ragonotella* (Constant, 1885)
15. *Denisia rhaetica* (Frey, 1856)
16. *Denisia similella* (Hübner, 1796)
17. *Denisia stipella* (Linnaeus, 1758)
18. *Denisia subaquilea* (Stainton, 1849)

### *Denisia curlettii* sp. n.

Type material. – Holotype ♂: Tunisia, Bou Hedma, 18.v.1990, Curletti leg. Gen. prep. A.23.10.92 E. Traugott-Olsen (RMNH). – Paratypes 2♀: Same date and locality as holotype. Gen. prep. B.21.10.92 and B.23.10.92. E. Traugott-Olsen. Wing prep. A.26.10.92 E. Traugott-Olsen. (coll. Baldizzone).

### Diagnosis

*D. curlettii* differs from all other species in *Denisia* by the shape of the valva which has the upper margin concave. In the other species the upper margin is straight or convex (Leraut, 1989). Externally the

species resembles *Denisia osthelderi* (Rebel, 1936), but it differs from it by the white basal fascia on the forewing that does not reach the costal margin of the wing. In *D. osthelderi* this fascia is complete. Further by the dorsal and subcostal spot in the middle, in *D. osthelderi* these two spots are united into one large spot. The light yellow hindwing with the greyish-brown apical third, is completely greyish-brown in *D. osthelderi*. The light yellow hindwing of the new species distinguishes it from all other species in the genus. Unfortunately the holotype of *D. osthelderi*, the only specimen known of this species, lacks the abdomen, thus making a comparison of the genitalia impossible.

### Description

Male (fig. 1). – Wingspan 8,5-9,5 mm. Head: frons white; vertex shining brown, irrorated white; collar shining dark brown; palpa first segment one-third of the length of the second, white, ventrally with apical dark brown spot, second segment one-fifth longer than third, white, ventrally mottled dark brown and somewhat rough-scaled beneath, third segment dark brown with white irroration dorsally; Scape irrorated white dorsally; ventrally shining light grey; antennae with distinct white annulations, ciliate. Thorax and tegulae shining dark brown. Legs: shining dark brown, tibiae with a white medial and apical ring, tarsi white at joints. Forewing dark brown, densely irrorated by yellow scales, an irregular white fascia before one-third, perpendicular on dorsum, narrowing towards costa and not reaching it, on dorsum, between base and fascia, a white spot, a triangular white spot on dorsum at halfway, a smaller subcostal white spot just beyond the dorsal spot, almost forming an interrupted outward oblique fascia, a large white costal spot at three-fourth, a small white spot on tornus, inwardly of the costal spot, on costa, dorsum and in the fold, also as some edging of the fascia and the spots; cilia dark grey, mixed ochreous, yellowish at tornal spot. Hindwing shining light yellow with some greyish-brown irroration, especially at base, the apical third shining greyish-brown, cilia greyish-brown around apex, light yellow from tornus to base. Underside: forewing shining greyish-brown, shining yellowish on dorsum; hindwing shining yellowish, irrorated greyish-brown at base and along costa, apical third shining greyish-brown. Abdomen not examined.

Male genitalia (fig. 3). – Uncus triangular, elongated distally, apex flat, slightly indented; tegumen al-

most parallel-sided, dorso-basal incision with sclerotized rims; gnathos broad, slightly tapering distally with a sharp downwards bent, hook-like apex; saccus rounded; juxta broad, juxta lobes long, narrow, tapering distally into a sharp, upwards bent, apex. Valva short, broad at base, tapering into a rounded, upwards bent and strongly setose cucullus, costa convex, ampulla warty. Aedeagus tubular, both ends bent downwards laterally, dorso-distally broadened subapically, without cornuti.

Female (fig. 2). – Scape dorsally shining dark brown with white apical spot, antennae shining dark brown, annulated white ventrally. Forewing with some scattered yellow scales, strongest in the basal half, the triangular white spot on dorsum at one-half and the smaller subcostal white spot just beyond the dorsal spot smaller and less pronounced.

Female genitalia (fig. 4). – Apophyses posteriores almost twice as long as apophyses anteriores. Tergite VIII almost square, slightly narrowing basally, weakly sclerotized. Antrum upper part bowl-shaped, lower part funnel-shaped, gradually tapering into colliculum, ventral margin almost straight, distal part sclerotized, dorsal wall of ostium bursae strongly spined. Corpus bursae not visible.

### Biology

The three specimens have been collected 18 May 1990 by Mr G. Curletti during his visit to Tunisia in order to collect larvae and adults of Buprestidae (Coleoptera). Unfortunately Mr Curletti cannot remember how he collected the specimens. That day he searched for larvae of Buprestidae, which live under the bark of dead trees and shrubs. Perhaps he accidentally reared the moths from these samples of wood. However he also collected at light (u.v. lamp) that night. The moths were collected at the foot of Djebel Bou Hedma (Djebel = hill). This hill, with an altitude of 790 meter, is situated south of the road P 14, halfway between the cities Gafsa and Sfax, several kilometres West of Maknassy.

The collecting site has a desert-like or steppe-like vegetation, characterized by the absence of trees and the presence of small shrubs of *Limoniastrum* sp. and *Tamarix* sp. (fig. 6). The smaller herbs, however, consist of many species and are difficult to identify, mainly belonging to the Chenopodiaceae (Salsolaceae), but also some Gramineae are found (e.g. *Aristida pungens*). These plants belong to the salty habitat of a 'chott', a depression in the landscape with a salt soil.

Figs 3-4. Genitalia of *Denisia curlettii*. – 3, male genitalia, ventro-caudal aspect, valvae spread, aedeagus separated, top dorsal aspect, bottom lateral aspect. Scale bar 0.25 mm; 4, female genitalia, ventral aspect, corpus bursae omitted. Scale bar 0.5 mm.

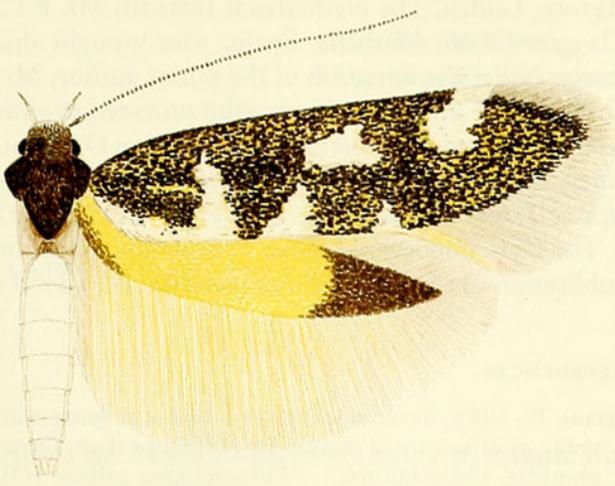
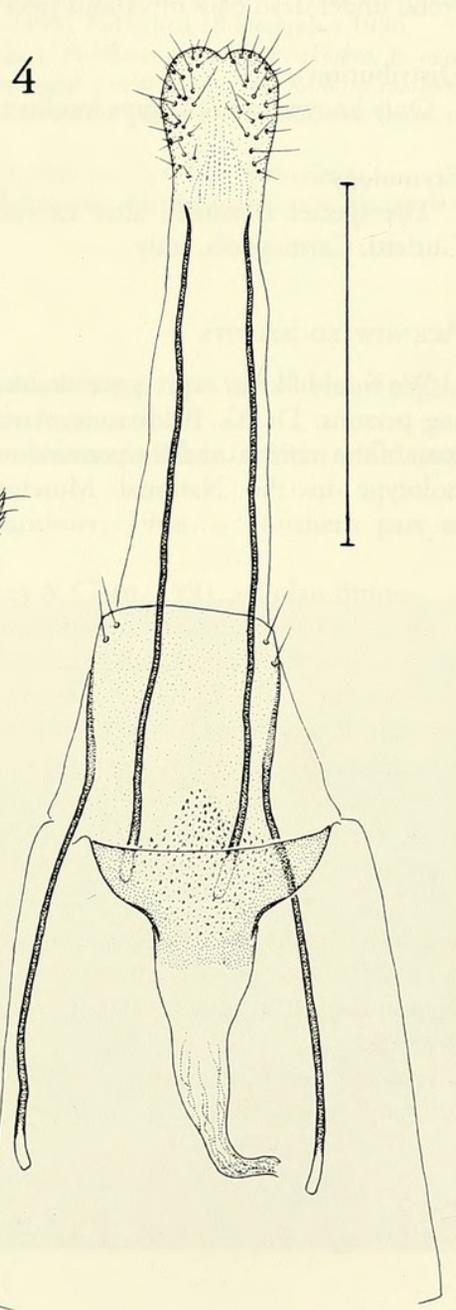
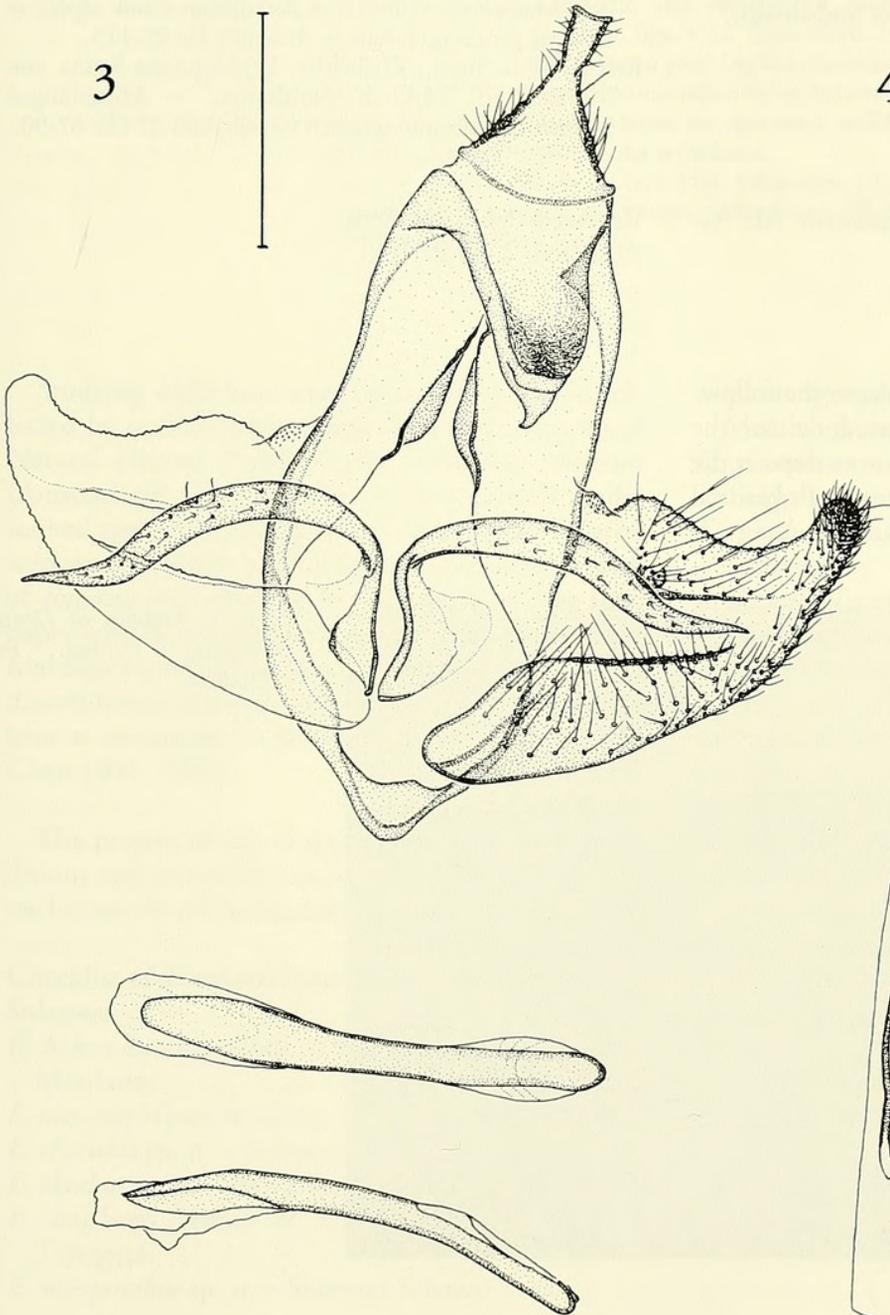


Fig. 1 (left). *Denisia curlettii*, male. – Fig. 2 (right). *Denisia curlettii*, female.



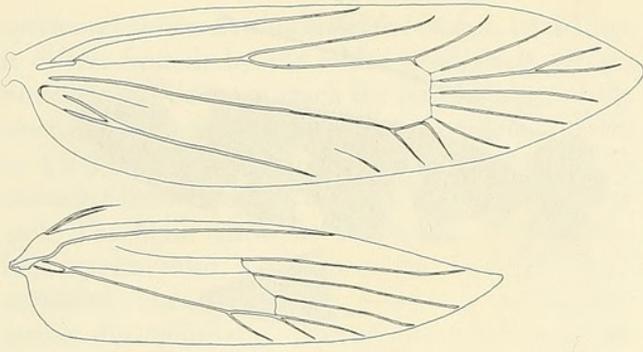


Fig. 5. Wing venation of *Denisia curlettii*.

First stages unknown. Larvae possibly under the bark of *Limoniastrum* sp. or *Tamarix* sp. The species of the genus *Denisia* are reported to feed on decaying wood under dead bark of various trees and shrubs.

**Distribution**

Only known from the type locality.

**Etymology**

The species is named after its collector Mr. G. Curletti, Carmagnola, Italy.

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Fig. 6. Habitat of *Denisia curlettii*. Tunisia: Bou Hedma.



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