

## *Syrianarpia faunieralis* sp. n. from the Cottian Alps of Italy (Crambidae: Scopariinae)

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**Summary.** In this paper a new species belonging to the genus *Syrianarpia* Leraut, 1982 is described. At the present state of our knowledge, three species are included in the genus *Syrianarpia*: *S. mendicalis* (Staudinger, 1879) from Iran, Turkey and Ukraine, *S. kasyi* Leraut, 1984 from Iran, and *S. faunieralis* sp. n. from the Cottian Alps (Italy).

**Résumé.** Le travail présente la description d'une nouvelle espèce du genre *Syrianarpia* Leraut, 1982. A l'état actuel de nos connaissances trois espèces appartiennent au genre *Syrianarpia*: *S. mendicalis* (Staudinger, 1879) de l'Iran, de la Turquie et de l'Ukraine, *S. kasyi* Leraut, 1984 de l'Iran, et *S. faunieralis* sp. n. des Alpes Cottiennes en Italie.

**Key words.** *Syrianarpia faunieralis* sp. n., Alps, Italy, Pyraloidea, Crambidae, Scopariinae.

### Introduction

The description of the genus *Syrianarpia* by Leraut is quite recent (1982), the type species being *S. osthelderi* Leraut, 1982. Nuss (1999) established the synonymy between *S. osthelderi* and *S. mendicalis* (Staudinger, 1879) (*Metasia*). The main feature that characterises the genus in genitalia is the presence on the vesica of one cornutus, straight in shape and basally slightly enlarged, and the absence of protruding appendices on the inner side of the valva. On the underside of the forewing, as in many other genera belonging to the family Crambidae, the retinaculum is provided with a “hamus” that helps locking the frenulum in place. Till now the genus was represented by two species: *S. kasyi* Leraut, 1984 from Iran and *S. mendicalis* (Staudinger, 1879) from Turkey, Iran, and also from Ukraine (Crimea) (Bidzilya & Budashkin 2004). A third species is here described from the Alps in Western Europe. The limited data available on this genus indicate that their representatives are chiefly mountain species; specimens of *S. mendicalis* verified by Nuss (1999) were collected at elevations between 900 and 1600 m above sea level, while specimens belonging to *S. kasyi* were collected at 2000 m (Derbend, 25 km North of Teheran). The two male specimens of the species described below were collected around 2500 meters on a mountain summit of the Cottian Alps.

### Methods

All comparisons involving biometrical data of the other *Syrianarpia* species were based on existing literature. Microphotographs were obtained with a Reichert Stereostar zoom microscope equipped with an Olympus digital camera.

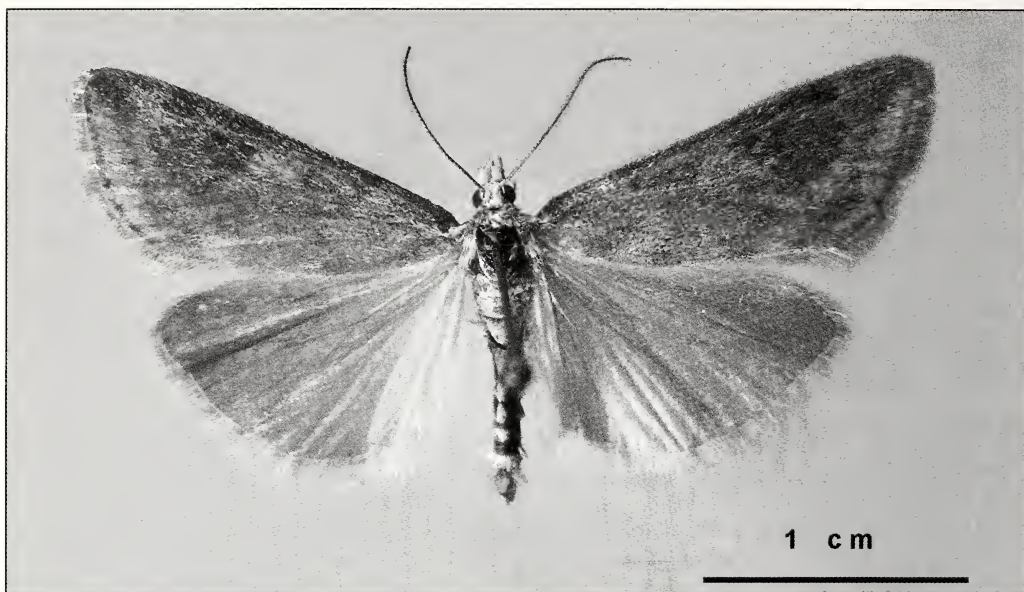


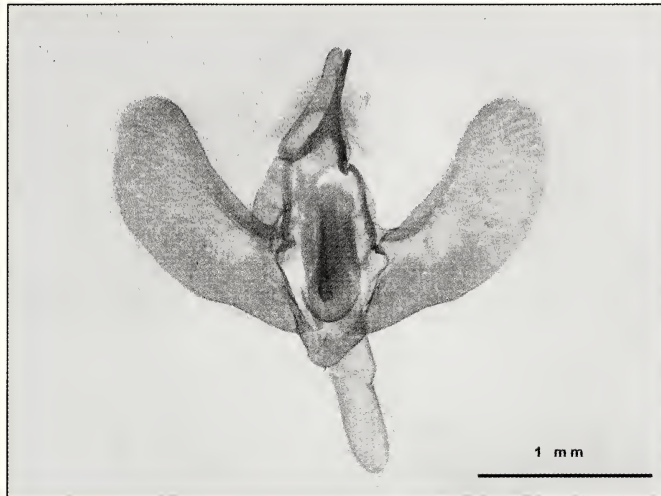
Fig. 1. *Syrianarpia faunieralis* sp. n. ♂ Paratypus.

### *Syrianarpia faunieralis* sp. n.

**Material.** Holotype ♂, '[Italy], Piemonte, CN | Valle Grana | Cima Fauniera m. 2500, | 23.vii.2001, leg. M.Gianti', deposited at the Zoologische Staatssammlung München, Germany, prep. n. MG H 182. – Paratype ♂, '[Italy], Piemonte, CN | Valle Grana | Cima Fauniera m. 2500, | 19.vii.2001, leg. M. Gianti', coll. Gianti.

**Description.** A large species; forewing length 16 mm excluding fringe; fringe about 1 mm long; wingspan 31–33 mm. Forewing ground colour brownish-grey, paler in some areas forming faintly contrasted pattern; discoidal stigma well marked, especially distal one; postmedian and subterminal lines very distinct. Hindwing slightly paler, faintly scaled. Head frontal and occipital regions whitish to pale grey, upperside of palpi concolorous, underside brown (Figs. 3–4). Antennae approximately 8 mm long. **Male genitalia.** Uncus progressively slender from base to distal end, apex blunt. Gnathos as long as uncus and sharply pointed. Juxta rather long (0.8 mm), regularly narrowing and rounded at apex. Valva rounded, median portion wider than basal and apical ones (see Fig. 2). Phallus about 1.5 mm long; ductus ejaculatorius inserting near middle; cornutus about 0.5 mm long.

**Diagnosis.** The forewings are pointed and their shape and pattern remind those of *S. mendicalis*, but *S. faunieralis* is larger than all other members of the genus (forewing length 16 mm versus 7–11 mm). In male genitalia the uncus is progressively decreasing in width toward apex, whilst in *S. mendicalis* it is slightly enlarged just before the tip, or nearly globulous. The valva is more rounded in *S. faunieralis*, especially the lower margin, while it is very straight in *S. mendicalis*, the costa in particular. The juxta is evenly tapering in *S. faunieralis*, whereas it has a conspicuous and long pointed tip in *S. mendicalis*. The insertion of the ductus ejaculatorius in the new taxon is located near the middle of the phallus, while it is closer to the anterior tip in *S. mendicalis*. The



**Fig. 2.** *Syrianarpia faunieralis* sp. n. Holotypus, ♂ genitalia with phallus in situ (prep. MG H 182).

cornutus is approximately one third the length of the phallus in *S. faunieralis*, whilst in *S. mendicalis* it is about one fifth of that length. *S. kasyi* has genitalia roughly similar to those of the new species, but they are distinctly smaller, the juxta is more pointed at the tip, and both the wing pattern and shape are very different.

**Derivatio nominis.** From the type locality, Cima Fauniera, a mountain in the Grana Valley, Southern Cottian Alps, Piedmont, Italy.

**Distribution.** Known only from the type locality. Very likely the species could be present in the French Cottian Alps.

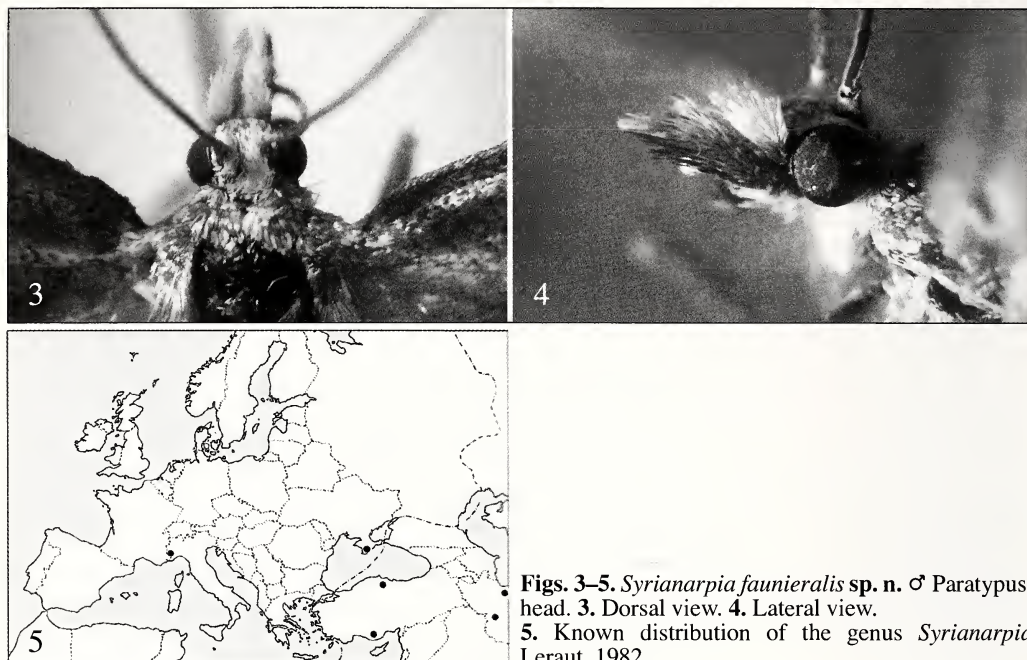
## Discussion

The discovery of this new species from a relatively well-investigated geographical area is just another example of how mountain districts are worth studying. The finding is even more surprising due to the size of the new described insect, which can be placed amongst the largest European Scopariinae. Even with the limited present state of knowledge, we can reasonably suppose that *S. faunieralis* represents an endemic alpine species, possibly restricted to the southwestern Alps. Further investigations of the neighbouring mountainous districts will probably disclose the real distribution range of the species.

More than 220 species of Lepidoptera are today known to be endemic to the Alps (Huemer 1998) and a large percentage of them are exclusive to one sector, i.e. western, central, or eastern Alps. Almost all of these species are characteristic of alpine and subalpine elevations, whilst only very few endemics are typical of the collin or nival altitudinal zones.

So far, very little is known about *S. faunieralis*. No females were collected nor observed. The larval food, early stages, and life history are unknown. Little more is documented about the habitat. The locality is the same as that of the Italian colony of the geometrid moth *Glacies belzebuth* (Praviel, 1938), an alpine endemic (cf. Gianti 2002). The biotope is extremely fragmentary, i.e. greatly variable from place to place, even on short distances, and this makes it difficult to obtain information on the real ecological





**Figs. 3–5.** *Syrianarpia faunieralis* sp. n. ♂ Paratypus, head. **3.** Dorsal view. **4.** Lateral view. **5.** Known distribution of the genus *Syrianarpia* Leraut, 1982.

requirements of the species. Moths appear to be uncommon. During several excursions in search of *G. belzebuth*, only two adults of *S. faunieralis* were observed. These were discovered flying in daylight near the ground, in small grass patches amongst emerging rocky substrate.

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