

Some new records of *Pyrgus alveus* (HÜBNER, [1803]) in China

(Lepidoptera: HesperIIDae)

by

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Two subspecies of *Pyrgus alveus* have been reported from China. In 1891 GRUM-GRSHIMAILO described as var. *sifanicus* the populations from the Kuku-Nor lake region in the province of Qinghai. DE PRINS & VAN DER POORTEN (1995), in a recent revision of the *Pyrgus alveus* complex, exhaustively investigated the taxonomic status of *sifanicus* proving it to be a junior synonym of *alveus*. OBERTHÜR in 1912 described a second subspecies under the name *reverdini*, from specimens taken in the area of Ta-t sien-lou. Formerly situated in Tibet, today this famous locality is in western Sichuan and named Kangding. EVANS (1949) and DE JONG (1972) both considered *reverdini* a good subspecies of *P. alveus*, having probably examined the same stock of specimens, 20 ♂♂ and 4 ♀♀, that I presume being the total amount of the taxon in the collection of the British Museum (Natural History). More recently RENNER (1991) treated *reverdini* as a subspecies of *P. alveus* as well. Having examined 3 ♂♂, all from Sichuan, he figured one of them and two male genitalia. DE PRINS and VAN DER POORTEN have not yet revised the taxonomic status of ssp. *reverdini*, planning to do so in a near future.

Considering all the above I think it useful to present some new records of *P. alveus reverdini* which in recent years my friend G. C. BOZANO and I have achieved in the Chinese province of Sichuan.

On 23rd July 1991 I have collected near Kangding the first specimens, two males flying on an alpine meadow at about 3900 m above sea level. Not far from Kangding, on the road to Batang, on 21st July 1992 at 3400 m, BOZANO found a female at Xinduqiao. Therefore these three specimens may be considered topotypical. Two years later I have found *P. alveus reverdini* in northern Sichuan, in the valley of Min Jiang river near Songpan, some 300 km distant from the previous localities. On 9th July 1994, in a mountain grass-land at about 3300 m, I collected 3 ♂♂. The butterfly fauna on the wing with *P. alveus* was rather scarce. This is the complete list: *Parnassius stubbendorffii*, *Aporia martineti*, *Aporia procris*, *Melitaea agar*, *Boloria* spec., *Coenonympha amaryllis tydeus*, *Coenonympha semenovi*, *Aphantopus hyperantus*, *Albulina* spec.

Even in northern Sichuan to the West of Songpan, BOZANO collected 5 more ♂♂ at Hongyuan, 3500 m, on 17 July 1994.

The colour plate shows my five specimens. Their look, as can be seen, is very uniform. For the little size, the greenish colour of the underside, the extension of the Unh white spots and their roundish shape, are in some way reminiscent of *Pyrgus jupei*. A very significant feature, already mentioned by EVANS and DE JONG, may be found in the central discal spot on the hind wing verso: its internal edge, which in *alveus alveus* is straight, tends to be prolonged towards the base of the wing along vein 6. This distinction is clearly visible in 4 of my 5 specimens and outlined in the last one. Therefore it seems quite easy to distinguish *P. alveus reverdini* from *P. alveus alveus*. By its external morphology it could even be considered a separate species.

As far as male genitalia are concerned I will only show two of them, one from each locality. They seem to be within the range of variability known for *P. alveus alveus*. However, considering that the male genitalia in the taxa of the *alveus* complex are not very different from each other, I think that the true taxonomic status of *reverdini* can only be established after examination and morphological comparison of a sufficient number of specimens. Even more, and when possible, an enzymatic and DNA investigation could resolve this problem. In any case *reverdini* seems clearly confined to a high altitude grass-land environment; very likely its occurrence in western and northern Sichuan is much more widespread than known today.

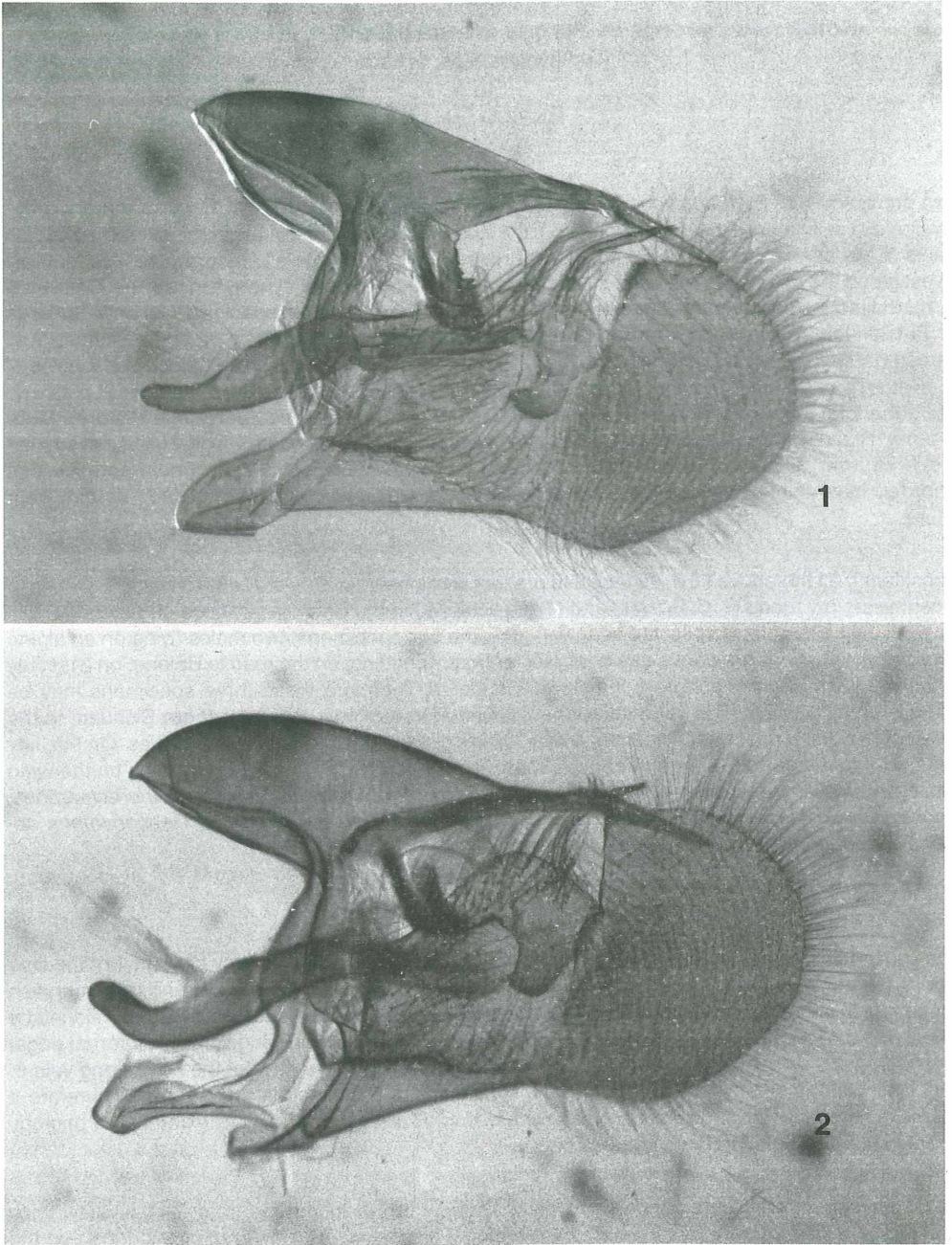


Fig. 1: *P. alveus reverdini* (OBERTHÜR, 1912), ♂, China, W Sichuan, Kangding vic. 3900 m, 23.VII.1991. – Gen. prep. GAL 122. Left valva removed.
Fig 2: *P. alveus reverdini* (OBERTHÜR, 1912), ♂, China, N Sichuan, Songpan vic. 3300 m, 09.VII.1994. – Gen. prep. GAL 160. Left valva removed.

Acknowledgements

I wish to express my gratitude to my friends GIAN CRISTOFORO BOZANO who authorized me to publish his personal records and VALTER RAINERI who, with Mr. MAURO BRUNETTI, photographed the genitalia. Special thanks are due to Dr. ULF EITSCHBERGER for his helpful advice in completing the list of references and to Mrs. ELIZABETH SACERDOTI ARENZ for checking my English.

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Explanation of the colour plate:

Figs. 1, 2: *P. alveus reverdini*, ♂♂, China, W Sichuan, Kangding vic. 3900 m, 23.VII.1991, leg. et coll. E. GALLO.

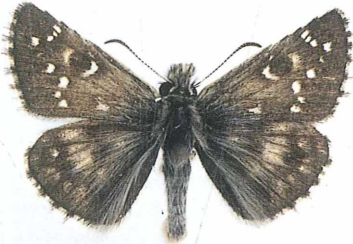
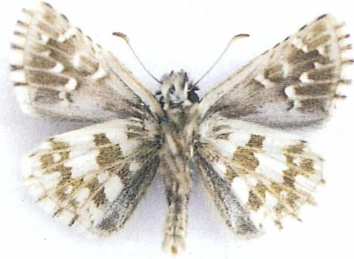
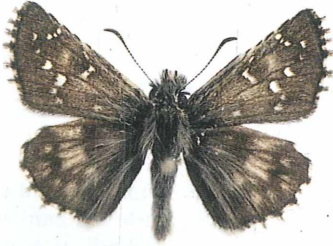
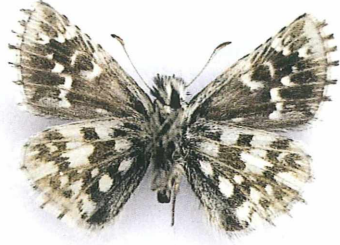
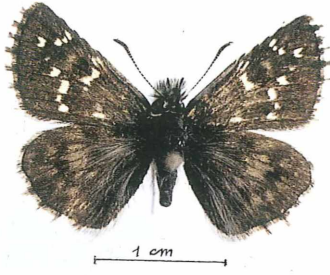
Figs. 3–5: *P. alveus reverdini*, ♂♂, China, N Sichuan, Songpan vic. 3300 m, 09.VII.1994, leg. et coll. E. GALLO.

Figs. 6—10: undersides of Figs. 1–5.

1	6
2	7
3	8
4	9
5	10

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