Taxonomic studies on Oriental Hesperiidae, 1. A revision of the *Scobura coniata* HERING, 1918-group

(Lepidoptera, Hesperiidae)

by

A. L. DEVYATKIN received 1.V.2004

Summary: 5 species are recognized in the *Scobura coniata* HERING, 1918-group, 3 of them being described as new: *S. evansi* spec. nov. (South East China, Fujian), *S. youngi* spec. nov. (South East China, Guangdong) and *S. phuongi* spec. nov. (North Vietnam). A key to the species and illustrations of the adults and male genitalia are provided.

History

The case of the *Scobura coniata* HERING, 1918-group recalls a detective story. Described after 2 males collected by R. MELL in "Tsha-jiu-san" (South East China), this species (illustrated in the original description with 1 male specimen from both sides) (HERING, 1918) since then has never been doubted to be unique in the genus, being characterized by its extraordinary large size and yellow-veined underside.

Evans (1949) suggested its type locality to be situated in Guangdong ("Kwang Tung") and, since there was a single male of the seeming *S. coniata* from the neighbouring Fujian ("Fukien") in the collection of the British Museum (Natural History) in London, stated the formerly described *Isoteinon Iyso* Evans, 1939 from the further neighbouring to the north Zhejiang ("Chekiang") to be its subspecies. Moreover, Evans placed a drawing of the male genitalia of the ssp. *Iyso* in his "Catalogue..." (Evans, 1949) under the name of *S. coniata*—and thus unwillingly started the confusion.

In 1994, a very *Scobura*-like *Polytremis* (!) *flavinerva* Снои & Zнои was described after a single male from Longzhou, Guangxi, and illustrated in the same book (Снои et al., 1994) along with *S. coniata* (looking in fact most similar to *lyso* Evans, 1949).

In 1996, J. YOUNG described the life cycle of *S. coniata* in Guangdong and added the photographs of the adult, praeimaginal stages and male genitalia to this description (YOUNG, 1996). The genitalia looked rather similar to those drawn schematically in EVANS' "Catalogue..." (EV-ANS, 1949), but some differences in the external features were quite clear.

A few years later, *P. flavinerva*, although with the genitalia sharply different from those illustrated by Evans, was synonymized with *S. coniata*, recorded from North Vietnam (DEVYATKIN & MONASTYRSKII, 1999); however, this was done rather arbitrarily, since by that time nobody had seen the genitalia of the real *S. coniata*.

The latest record of *"Scobura coniata coniata"* was again from North Vietnam (Cuc Phuong National Park, Ninh Binh Province), with the illustrations of the butterfly and male genitalia (IKEDA et al., 2001), which also looked somewhat different from those photographed by YOUNG (1996).

However, only part of these records can be referred to the real S. coniata.

In 2001, additional specimens of the presumed *S. coniata* (sensu DEVYATKIN & MONASTYRSKII, 1999) were found in North Vietnam; in 2003, further 2 males were collected in the same area, this time clearly representing another species of this group.

After a careful examination of the principal material (including one male type of *S. coniata* from Berlin, both *coniata* and *lyso* from London, and 2 males collected by J. YOUNG) and all descriptions and records, it has become clear that in fact we are dealing with 5 distinct species belonging to the same group.

The general characteristic of the group and its taxonomic composition are presented below.

Abbreviations FW – forewing HW – hindwing

General characters of the S. coniata-group

Relatively large (FW length = 17-23 mm); fringes chequered; upperside ground colour dark brown, with yellow suffusion in the basal part of wings; hyaline spots in cell (separate or conjoined), in spaces 1b, 2, 3, 4–5, 6–8 on FW and in spaces 2 (sometimes also 3) and 4–5 on HWunderside predominantly yellow; HW with yellow veins and dark spots.

FW linear stigma across discal spots in spaces 1b and 2 in one species (*S. coniata* proper) is unique in the genus.

Male genitalia symmetrical, with a well developed juxta (and its appendages of different shape) and a strongly developed sclerotized lobe, or "footstalk", at the base of clasp.

Key to the species of the Scobura coniata HERING, 1918-group (males)

- 1 (2) FW with a linear stigma crossing discal spots in spaces 1b and 2. Cell spots conjoined, the lower one much larger and produced basad S. coniata HERING, 1918
- 2 (1) FW without linear stigma. Cell spots conjoined or separate, subequal.
- 3 (8) Hyaline spots white. HW with 2 spots (if 3, that in space 3 dot-like).
- 4 (7) Cell spots conjoined.
- 5 (6) FW spot in space 2 narrow, transversal. HW with 2 spots. FW 17 mm

. S. evansi spec. nov.

- 6 (5) FW spot in space 2 elongate, produced basad. HW with 3 spots (that in space 3 dot-like). FW 19–20 mm S. youngi spec. nov.
- 7 (4) Cell spots separate. FW 22-23 mm . S. lyso Evans, 1949 stat. rev.
- 8 (3) Hyaline spots yellow. HW with 3 well developed separate spots

S. phuongi spec. nov.

The available material of females is insufficient to create a key for identification of the species.

Figs. 1–5: Male genitalia of *Scobura* ELW. & EDW. (A – tegumen and uncus, lateral view; B – clasp, inner view; C – juxta).

Fig. 1 – S. coniata HERING; fig. 2 – S. evansi spec. nov.; fig. 3 – S. lyso Evans; fig. 4 – S. youngi spec. nov.; fig. 5 – S. phuongi spec. nov.













Description of the species

Scobura coniata HERING, 1918 (colour plate Illa, figs. 1-4)

Scobura coniata Hering, 1918, Mitt. Zool. Mus. Berlin **9**: 58. Tsha-jiu-san.

Polytremis flavinerva Снои & Zнои, 1994, Monogr. Rhopalocerorum Sinensium **2**: 774. Long. zhou, Guangxi.

Scobura coniata Hering, 1918 (= *Polytremis flavinerva* Снои & Zнои, 1994, **syn. nov.**): Dev. Yatkin & Monastyrskii, 1999: 170. North Vietnam (Ba Be).

Material examined

Lectotype \mathcal{J} (designated below), Tsha-jiu-san; 2 $\mathcal{J}\mathcal{J}$, North Vietnam, Bac Can Province, Ba Be National Park, 1.VI.1997, Bui Xuan Phuong leg.; 4 $\mathcal{J}\mathcal{J}$, 2 $\mathcal{Q}\mathcal{Q}$, North Vietnam, Hai Phong Province, Cat Ba National Park, 18.V. and 2.–3.VI.2001, A. L. MONASTYRSKI leg.

Of the 2 specimens, upon which the original description was based, only one is at present deposited in the collection of the Museum für Naturkunde, Humboldt Universität, Berlin. Since the location of the second specimen is unknown, the remaining male is selected as the lectotype. The label data of the lectotype are as follows:

"China/ Tsha-jiu-san/ VII 10,/ MELL S. V." [printed on yellow card];

"Type" [printed on red card]; "19.7.10" [handwritten on white paper]; "Scobura coniata m./ det. MARTIN HERING" [handwritten on yellow card].

Description

The original description (HERING, 1918) is very detailed, so it seems reasonable to give only the most significant diagnostic characters here. These are as follows.

Male (colour plate IIIa, figs. 1, 2).

FW cell spots conjoined or touching, the lower being much larger than the upper one and produced basad; spots in spaces 4–5 mostly dot-like but distinct; spot in space 2 produced basad and distally excavate; spots in spaces 2 and 1b divided by a fine and dark transversal linear stigma going from mid-vein 1 to the base of vein 3. HW typically with 2 spots (the upper one much larger) of variable size; the single male type specimen of *Polytremis flavinerva* CHOU & ZHOU, 1994 from Guangxi has an additional dot-like spot in space 3. Specimens from different localities seem to display some variation in the configuration of spots, but the material is too insufficient to speculate on any possible subspecific division of the species.

Female (colour plate IIIa, figs. 3, 4).

The two available females seem to differ from the males in having FW spot in space 2 more quadrantic and HW 2 spots somewhat reduced.

FW length 19.5–20.5 mm (18 mm in the holotype of *P. flavinerva*) in the males and 21 mm in the females.

Male genitalia (fig. 1).

These are rather different from those of the rest of the group in having uncus conspicuously shorter than tegumen (equal to, or longer than tegumen in other species) and cuiller long and almost pointed; the dorsal projections of cuiller are not spine-like, the proximal one being

bluntly triangular and the distal one rather rounded and evenly spined; the basal lobe of clasp is rounded and bears a variable number of small spines (totally absent in some specimens); however, juxta is similar to that of most species of the group, with two finely spined branches. As in the external features, variation is considerable in the genitalia, especially in the shape and spining of the dorsal projections of the cuiller.

Distribution

The species seems to be restricted to South East China (the type locality suggested to be in Kwang Tung = Guangdong) (EVANS, 1949) and the adjacent areas of North Vietnam.

Scobura evansi spec. nov. (colour plate IIIa, figs. 5, 6)

Scobura coniata sub-sp. coniata HERING 1918: EVANS, 1949: 295. Fukien.

Material examined

Holotype \mathcal{S} : [South East China], Kwangtseh – Fukien, 10.VII.1937, J. KLAPPERICH leg. (deposited in the collection of The Natural History Museum, London).

Description

Male (colour plate Illa, figs. 5, 6).

Upperside. FW cell spots totally conjoined, forming a single spot, the lower part being larger and rounded; spots in spaces 7–8 small, of equal size, that in space 6 larger and slightly displaced towards termen; spots in spaces 4 and 5 small but clear, the latter being larger; spot in space 3 rather small and obliquely quadrangular; spot in space 2 the largest, rather narrow, transversal, basally oblique, distally concave; spot in space 1b equal to spot in space 3, almost quadrantic. HW spot in spaces 4–5 elongate, tapering towards base, distally concave; spot in space 2 smaller, slightly elongate, rectangular.

Underside. FW with the same markings as on the upperside, except that spot in space 1b is larger and diffusely shaped. HW ground colour yellow, with obscure dark marginal spots between veins and more sharp discal spots in spaces 2 to 7 (surrounding hyaline spots) and one spot at base of space 7.

FW length 17 mm.

Male genitalia (fig. 2).

This is another atypical case in the group: although the shape of cuiller, distally rounded and with a dorsal spine, is similar to that of most other species (except *S. coniata* itself), the clasp has no expressed footstalk (just a short lobe), and juxta is extremely unusual, being formed by 2 symmetrical lateral deeply bifurcate lobes, strongly sclerotized and sharply pointed. The last character makes it possible to distinguish the genitalia of the new species at the very first glance.

Distribution

South East China, Fujian ("Fukien"): only the holotype is known so far.

Scobura lyso (Evans, 1939), stat. rev. (colour plate IIIa, figs. 7, 8)

Isoteinon Iyso Evans, 1939, Proc. R. Ent. Soc. Lond. (B) **8** (8): 165. Chekiang. Scobura coniata sub-sp. Iyso Evans 1939: Evans, 1949: 295. Chekiang.

Material examined

Paratype ♂, [Chekiang], W. Tienmüshan, 21.VII.1930 (deposited in the collection of The Natural History Museum, London).

Note

The holotype is preserved in the Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn (Germany). A total of 2 males and 2 females from Chekiang is kept in London.

Description

Male (colour plate IIIa, figs. 7, 8).

Upperside. FW cell spots completely separate, both elongate, subequal, the lower being slightly larger than the upper; spots in spaces 2–8 as in *S. evansi* (those in spaces 4–5 subequal); spot in space 1b large and trapezium-shaped (slightly produced to termen along vein 1). HW spot in spaces 4–5 rather broad, of irregular shape, distally excavate; spot in space 2 elongate and almost rectangular.

Underside. FW with the same markings as on the upperside, except that spot in space 1b is diffusely shaped. HW hyaline spots the same as on the underside; dark marginal spots obscure, dusted with yellow scales; dark discal spots in spaces 1c to 7, surrounding hyaline spots from both sides; a dark spot at base of space 7; spaces 1b and 8 predominantly dark. Fringes very distinctly chequered.

FW length of the paratype 22 mm (23 mm as stated by Evans (1949) for ssp. lyso males).

Male genitalia (fig. 3).

Uncus as long as tegumen; dorsal side of clasp straight or slightly concave; cuiller distally rather rounded, its length is about ½ length of clasp; costal side of cuiller rather evenly spined but forming a sharp spine-like angle proximally and another spined projection lower than the costal side; "footstalk" is a very long, thin and sharp spine. Juxta with 2 symmetrical narrow spined branches.

Distribution

Known so far only from Chekiang (= Zhejiang Province, South East China).

Scobura **youngi** spec. nov. (colour plate Illa, figs. 9, 10)

Scobura coniata (HERING): YOUNG, 1996: 282. Guangdong.

Material examined

Holotype δ: South East China, Guangdong Province, Tianjing Shan Mts., Jin Dong River, 16.IX. 1996 (reared ex ovo), J. Young leg. Paratype: 1 3, the same locality, 22.IX.1996 (ex ovo), J. YOUNG leg. Both type specimens are in the collection of the Department of Entomology, Moscow State University (Russia).

Description

Male (colour plate Illa, figs. 9, 10).

Upperside. FW with a distinct yellow streak along costa; cell spots conjoined, the lower one produced basad. Spots in spaces 6–8 small, the lower being larger and slightly displaced towards termen; spots in spaces, 4–5 minute, that in space 5 hardly traceable; spot in space 3 of an indefinite shape; spot in space 2 elongate, produced towards base, outwardly concave; spot in space 1b elongate, oblique or dorsally rounded. HW spot in spaces 4–5 rounded, distally excavate; spot in space 3 dot-like; spot in space 2 elongate, of a rounded shape.

Underside. FW with the same markings; spot in space 1b rather sharp. HW marginal spots diffuse, discal dark spots in spaces 1c-7 sharp, surrounding white hyaline spots. An additional triangular dark spot at the very base of space 7.

FW length 19 mm.

Male genitalia (fig. 4).

Uncus much longer than tegumen; dorsal side of clasp distally convex; cuiller distally rounded, much shorter than ½ length of clasp (difference from *S. lyso*); costal side of cuiller rather irregularly shaped, forming a robust proximal spine and another strongly spined sharp lower projection approximate to it; footstalk" is a very long robust spine, with somewhat uneven sides. Juxta as in *S. lyso*, slightly narrower, with its branches gently spined.

Distribution

Known only from the type locality.

Biology

The life history, with excellent photographs of all stages, is given in detail by YOUNG (1996).

Scobura **phuongi spec. nov**.

(colour plate IIIa, figs. 11, 12)

Scobura coniata coniata HERING, 1918: IKEDA et al., 2001: 65. Cuc Phuong.

Material examined Holotype 3: North Vietnam, Tuyen Quang Province, Ban Bung district, Na Hang Nature Reserve, 10.VI.2003, Bui Xuan Phuong leg. Paratype: 1 3, the same locality, 9.VI.2003, Bui Xuan Phuong leg. Both type specimens are in the collection of the Department of Entomology, Moscow State University (Russia).

Description Male (colour plate IIIa, figs. 11, 12). Upperside. Hyaline spots yellowish. FW with a distinct yellow streak along costa; cell spots separate, elongate, the lower one produced basad. Spots in spaces 6–8 small, the lower one being larger and displaced towards termen; spots in spaces 4–5 small and distinct, subequal; spot in space 3 elongate, outwardly cut straight; spot in space 2 produced towards base, outwardly concave; spot in space 1b sharp, almost trapezium-shaped. HW both spots in spaces 2 and 4–5 long, the latter being outwardly excavate; the spot in space 3 distinct and adjoined to that in spots 4–5.

Underside. FW spots the same as on the upperside except that the spot in space 1b is more diffuse and produced towards termen. HW marginal dark spots not traceable (yellow suffused); discal dark spots in spaces 1c-7 and at base of space 7 small but rather dharp. Space 1b predominantly dark; space 8 yellow-dusted.

FW length 19 mm.

Male genitalia (fig. 5).

Uncus much longer than tegumen; costal side of clasp strongly convex; cuiller about ½ length of clasp; dorsal side of cuiller irregularly spined, forming a sharp spine-like proximal angle and a rather distant strongly spined and broad lower projection; "footstalk" robust at base, relatively short and sharply pointed. Juxta laterally extended and strongly spined near the middle.

Distribution

North Vietnam (Tuyen Quang and Ninh Binh Provinces).

Discussion

The above 5 species, rather similar in appearance and different from all other *Scobura* species, form a compact group which is nevertheless not uniform in structural characters. The most outstanding one is *S. coniata*, distinguished by its linear stigma, not found in any other species of the genus, and by the peculiar shape of the cuiller, recalling that of *Suada* DE NICEVILLE. Another special case is *S. evansi*, remarkable for its sclerotized and horned juxta. On the other hand, both species share the absence of a strong "footstalk", which is replaced by a short rounded lobe. The 3 other species seem to be more closely related with respect to the male genitalia, showing however marked differences in their external features.

The unexpected and striking diversity of the *S. coniata*-group seems to be entirely restricted to a rather narrow geographical area of South East China (Zhejiang, Fujian, Guangdong and Guanxi Provinces) and the adjacent parts of North East Vietnam (Tuyen Quang and Ninh Binh Provinces). At present this area looks like being the centre of speciation of the larger *Scobura* species, including the recently described *S. eximia* DEVYATKIN, 2002, which is somewhat transitional to the *S. coniata*-group in the male genitalia (DEVYATKIN, 2002). This rather low-altitude area, together with its tendency to endemism, was stated to be one of the main sources forming the butterfly fauna of North and Central Vietnam, along with that originating from the mountains of North East India (DEVYATKIN, 2001; DEVYATKIN & MONASTYRSKI, 2002). This point of view is confirmed, for example, by the recent discoveries of *Halpe paupera* DEVYATKIN, 2002 and *Thoressa monastyrskyi monastyrskyi* DEVYATKIN, 1996, described from North Vietnam, in Hong Kong (DEVYATKIN, 2002; WONG et al., 2003) as well as by the distribution pattern of some other butterflies such as *Teinopalpus aureus* MELL, 1923 (WATANABE, 1996).

Acknowledgements

My deepest gratitude is due to the following persons who provided me with the necessary type specimens, genitalia preparations and photographs: Dr. WOLFRAM MEY (Museum für Naturkunde, Humboldt-Universität, Berlin), Mr. PHILLIP ACKERY and Mrs. KIM GOODGER (The Natural History Museum, London), Mr. JAMES YOUNG (The Hong Kong Lepidopterists' Society).

Without kind help and friendly attitude of all these persons this revision could have never been made possible.

References

- CHOU IO (Ed.) (1994): Monographia Rhopalocerorum Sinensium. Henan Sci. And Technol. Publishing House, vol. **2**, 854 pp., ill.
- DEVYATKIN, A. L. (2001): Hesperiidae of Vietnam, 9. Three new species and one new subspecies of the subfamily Pyrginae (Lepidoptera, Hesperiidae). Atalanta **32** (3/4): 403–410.
- DEVYATKIN, A. L. (2002): Hesperiidae of Vietnam, 11. New taxa of the subfamily Hesperiinae (Lepidoptera, Hesperiidae). Atalanta **33** (1/2): 127–135.
- DEVYATKIN A. L. & A. L. MONASTYRSKII (1999): Hesperiidae of Vietnam, 5. An annotated list of the Hesperiidae of North and Central Vietnam (Lepidoptera, Hesperiidae). – Atalanta **29** (1/4): 151–184.
- DEVYATKIN A. L. & A. L. MONASTYRSKII (2002): Hesperiidae of Vietnam, 12. A further contribution to the Hesperiidae fauna of North and Central Vietnam. – Atalanta **33** (1/2): 137– 155.
- EVANS, W. H. (1949): A catalogue of the Hesperiidae from Europe, Asia and Australia in the British Museum (Natural History). – Trust. Brit. Mus., London, 502 pp., 53 pls.
- HERING, M. (1918): Neue Hesperiiden aus China. Mitt. Zool. Mus. Berlin 9: 51-59.
- IKEDA, K., NISHIMURA, M. & H. INAGAKI (2001): Butterflies of Cuc Phuong National Park in Northern Vietnam (5). - Butterflies **30**: 58–66.
- WATANABE, Y. (1996): Notes of *Teinopalpus aureus* MELL from Hainan Island, China. In: Koiwaya, S. (Ed.): Studies of Chinese butterflies **3**: 11–13, ill.
- WONG, E., LEUNG, P. C., SZE, P., WONG, A. & V. LI (2003): New butterfly record from Hong Kong Thoressa monastyrskyi. – Hong Kong Biodiversity, No. 5 (August 2003): 7.
- YOUNG, J. (1996): A brief note on the life history of *Scobura coniata* (HERING) Lepidoptera, Hesperiidae in Guangdong, China. – In: KOIWAYA, S. (Ed.): Studies of Chinese butterflies **3**: 282–283, ill.

Explanation of colour plate IIIa (p. 157):

Fig. 1: *Scobura coniata* Hering, 1918, ♂, North Vietnam, Hai Phong Province, Cat Ba National Park, 18.V.2001, A. L. MONASTYRSKII leg., upperside.

Fig. 2: Id., underside.

Fig. 3: *Scobura coniata* Некіль, 1918, ♀, North Vietnam, Hai Phong Province, Cat Ba National Park, 3.VI.2001, A. L. Monastyrskii leg., upperside.

Fig. 4: Id., underside.

Fig. 5: *Scobura evansi* spec. nov., holotype ♂, [South East China], Kwangtseh – Fukien, 10.V_{II.} 1937, J. КLAPPERICH leg., upperside.

Fig. 6: Id., underside.

Fig. 7: *Scobura lyso* (EVANS, 1939), paratype 3, [South East China], W. Tienmüshan, 21.VII. 1930, upperside.

Fig. 8: Id., underside.

Fig. 9: *Scobura youngi* spec. nov., holotype ♂, South East China, Guangdong Province, Tianji_{ng} Shan Mts., Jin Dong River, 16.IX.1996 (reared ex ovo), J. Young leg., upperside.

Fig. 10: Id., underside.

Fig. 11: *Scobura phuongi* spec. nov., holotype ♂, North Vietnam, Tuyen Quang Province, Ban Bung district, Na Hang Nature Reserve, 10.VI.2003, Ви Хиам Рниомд leg., upperside. Fig. 12: Id., underside.

1	3	5	
2	4	6	
7	9	11	
8	10	12	

Address of the author

ALEXEY L. DEVYATKIN Department of Entomology Faculty of Biology Moscow State University 119992 Moscow, Russia Colour plate IIIa

DEVYATKIN, A. L.: Taxonomic studies on Oriental Hesperiidae, 1. A revision of the *Scobura coniata* HERING, 1918-group (Lepidoptera, Hesperiidae). – Atalanta **35** (1/2): 57–66.

Fig. 1: *Scobura coniata* HERING, 1918, 3, North Vietnam, Hai Phong Province, Cat Ba National Park, 18.V.2001, A. L. MONASTYRSKII leg., upperside.

Fig. 2: Id., underside.

Fig. 3: *Scobura coniata* HERING, 1918, 9, North Vietnam, Hai Phong Province, Cat Ba National Park, 3.VI.2001, A. L. MONASTYRSKII leg., upperside.

Fig. 4: Id., underside.

Fig. 5: *Scobura evansi* spec. nov., holotype ♂, [South East China], Kwangtseh – Fukien, 10.VII. 1937, J. КLAPPERICH leg., upperside.

Fig. 6: Id., underside.

Fig. 7: *Scobura lyso* (Evans, 1939), paratype ♂, [South East China], W. Tienmüshan, 21.VII.1930, upperside.

Fig. 8: Id., underside.

Fig. 9: *Scobura youngi* spec. nov., holotype 3, South East China, Guangdong Province, Tianjing Shan Mts., Jin Dong River, 16.IX. 1996 (reared ex ovo), J. YOUNG leg., upperside.

Fig. 10: Id., underside.

Fig. 11: Scobura phuongi spec. nov., holotype ♂, North Vietnam, Tuyen Quang Province, Ban Bung district, Na Hang Nature Reserve, 10.VI.2003, Bui Xuan Phuong leg., upperside. Fig. 12: Id., underside.

Colour plate IIIb

DEVYATKIN, A. L.: Taxonomic studies on Oriental Hesperiidae, 2. A new species and a new subspecies of *Celaenorrhinus* HÜBNER, 1819 (Lepidoptera, Hesperiidae). – Atalanta **35** (1/2): 67–71.

Fig. 1: Celaenorrhinus subsimilis spec. nov., holotype ♀, upperside.

Fig. 2: Id., underside.

Fig. 3: Celaenorrhinus aurivittata insularis subspec. nov., holotype $\vec{\sigma}$, upperside.

Fig. 4: Id., underside.

1		2		
	3	4	1	

Colour plate IIIa/b

































ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Atalanta

Jahr/Year: 2004

Band/Volume: 35

Autor(en)/Author(s): Devyatkin Alexey L.

Artikel/Article: Taxonomic studies on Oriental Hesperiidae, 1. A revision of the Scobura coniata Hering, 1918-group 57-66