QL
461
P544
ENT

SMITHSONIAN
SEP 26 2005

PHEGEA

driemaandelijks tijdschrift van de
VLAAMSE VERENIGING VOOR ENTOMOLOGIE

Afgiftekantoor 2170 Merksem 1 ISSN 0771-5277
Periode: juli – augustus – september 2005 Erkenningsnr. P209674

Redactie: Dr. J.–P. Borie (Compiègne, France), Dr. L. De Bruyn (Antwerpen), T. C. Garrevoet (Antwerpen), B. Goater (Chandlers Ford, England), Dr. K. Maes (Tervuren), Dr. K. Martens (Brussel), H. van Oorschot (Amsterdam), W. O. De Prins (Leefdaal).
Redactie-adres: W. O. De Prins, Dorpstraat 401B, B-3061 Leefdaal (Belgium).
e-mail: willy.deprins@antwerpen.be.

Jaargang 33, nummer 3 1 september 2005

Vondst van *Hyles livornica* te Koksijde (Lepidoptera: Sphingidae)

Diederik D'Hert

Abstract. Record of *Hyles livornica* at Koksijde (Lepidoptera: Sphingidae)
On 12 June 2003, a specimen of *Hyles livornica* (Esper, 1779) was found in a light trap at Koksijde (Belgium, West-Vlaanderen). This is the 12th record of the species in Belgium.

Résumé. Observation de *Hyles livornica* à Koksijde (Lepidoptera: Sphingidae)
Le 12 juin 2003, un exemplaire de *Hyles livornica* (Esper, 1779) fut trouvé dans un piège lumineux à Koksijde (Belgique, West-Vlaanderen). Il s'agit du douzième exemplaire trouvé en Belgique.

Key words: *Hyles livornica* – Belgium – faunistics.

D'Hert, D.: Salvialaan 37, B-8670 Koksijde, diederik.dhert@pandora.be.

Op 12 juni 2003 werd tijdens een inventarisatie van nachtvlinders met behulp van een lichtval (type Robinson 80W MV-lamp) te Koksijde een gestreepte pijlstaart *Hyles livornica* (Esper, 1779) aangetroffen (fig. 1).

Het betreft een pijlstaartvlinder met een zuidelijk gelegen leefgebied, dat zich uitstrekt van China tot Klein-Azië en het grootste gedeelte van Afrika bedekt. Mogelijk is de soort in Zuid-Spanje ook een standvlinder. Een aantal vlinders migreert noordwaarts en kan zo in onze gebieden terechtkomen.

De vondst van de gestreepte pijlstaart te Koksijde is slechts de 12de geregistreerde waarneming voor België. De eerste waarneming dateert van 1915, en vervolgens werden in ons land 3 dieren in 1943, 1 in 1944 en 1946 en 1984, 3 in 1985 en 1 in 1997 aangetroffen (Vanholder, B., *pers. med.*). Voor Nederland zijn in de periode 1943–2002 43 gevallen bekend (verspreid over 15 jaren). De exacte reden van de niet-jaarlijkse noordwaartse migratie van deze soort is niet duidelijk.

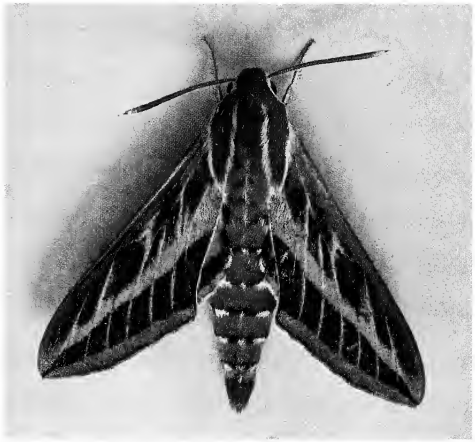


Fig. 1: *Hyles livornica* (Esper, 1779), Belgium, West-Vlaanderen, Koksijde, 12.VI.2003, © Diederik D'Hert.

De waarneming te Koksijde ligt in de lijn van de influx van gestreepte pijlstaarten in Groot-Brittannië. In de periode 30 mei – 15 juli werden er maar liefst 47 dieren gevangen, voornamelijk in het zuidelijke gedeelte. De opvallend talrijkere waarnemingen ten opzichte van ons land kan enerzijds verklaard worden door het feit dat studie van nachtvlinders in Groot-Brittannië een bijzonder populaire 'volkssport' is en een veel groter aantal aanhangers kent (4000 à 10000 ten opzichte van maximum 40 in België). Anderzijds volgen de meeste trekvlinders een route over de Canarische eilanden – Biscay – Zuidwest-Engeland, eerder dan over het Europese vasteland (Steve Nash, *pers. comm.*). Terwijl tot op heden slechts 12 vondsten in België bekend zijn, waren er dat tussen 1856 en 1972 meer dan 1600 voor Engeland (waarvan maar liefst 543 in 1943).

Lacanobia splendens, a new species for the Belgian fauna (Lepidoptera: Noctuidae)

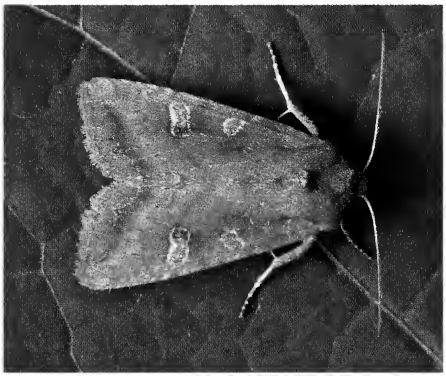
Maarten Jacobs

Samenvatting. *Lacanobia splendens*, een nieuwe soort voor de Belgische fauna (Lepidoptera: Noctuidae)
Zowel op 09 juli 2004 als op 20 juni 2005 werd een exemplaar van *Lacanobia splendens* (Hübner, 1808) gevangen te Viersel (provincie Antwerpen). Het gaat om de eerste en tweede waarneming van deze soort in België. De verspreiding en ecologie van deze soort worden kort besproken.

Résumé. *Lacanobia splendens*, une espèce nouvelle pour la faune belge (Lepidoptera : Noctuidae)
Le 09 juillet 2004 et le 20 juin 2005, un exemplaire *de Lacanobia splendens* (Hübner, 1808) fut trouvé à Viersel (province d'Anvers). Il s'agit de la première et deuxième observation de cette espèce en Belgique. Des informations sur la répartition et l'écologie de l'espèce sont données.

Key words: *Lacanobia splendens* – faunistics – Belgium – first record.

Jacobs, M.: Molenheide 173, B-2242 Zandhoven, info@maartenjacobs.be



Figs. 1–2: *Lacanobia splendens* (Hübner, 1808), Belgium, Province of Antwerp, Viersel, Nature reserve "Kleine Netevallei", 09 July 2004, leg. M. Jacobs (Photo: M. Jacobs).

On 09 July 2004, during a moth trapping session with a 125 Watt mercury vapour lamp on a tripod in the nature reserve "Kleine Netevallei" at Viersel (Belgium, province of Antwerp) a unfamiliar looking noctuid moth was trapped. At first look it resembled most *Lacanobia oleracea* or a pale *Lacanobia suasa* but the more pinkish ground colour, the strength of the cross-lines and the presence of strong red-brown shading along the proximal edge of the subterminal line were atypical. I decided to take the specimen at home for further identification. Here it became clear that it was *Lacanobia splendens*. This is the first observation of the species in Belgium. The specimen was photographed and released on the location where it was caught. *Celaena leucostigma* may cause confusion but this species which is usually on the wing during the early autumn and thus hardly overlaps with the summer flight period

of *Lacanobia splendens*, lacks a white and obviously 'toothed' subterminal line. On 20 June 2005, the species was trapped again with a 125 Watt mercury vapour lamp on a tripod on the same location.

Ecology

As the German name "Feuchtwiese – Kräutereule" and the Dutch name "Moeras-w-uil" already indicate, this species lives in marches, wetlands and wet forests. The imagos fly from the second half of May until the end of August. The species is known to be univoltine but there are strong indications that in warmer areas a partly second generation occurs in August and the beginning of September. The adult moths are seldom seen on light but are sometimes commonly seen on flowering plants and are also reported from sugaring. The larval foodplants are stated to include *Solanum dulcamara, Convolvulus arvensis, Calystegia, Arctium, Lactuca, Plantago* (Nowacki 1998), *Cicuta virosa, Menyanthes trifoliate* (Lomb & Hildebrecht 1941), *Lysimachia* (Lhomme 1923–1935). Caterpillars can be found in July and August. Two caterpillars that where found in October (Vogtsburg, Germany) where probably the result of a partly second generation female. The species overwinters as pupae.

Distribution

Lacanobia splendens occurs widely in central and southern Europe (Karsholt & Razowski 1996) but the distribution is very fragmented. In most parts of its distribution it is considered to be endangered. The decline is due to the draining of most wet habitats. The species reacts very fast on slight changes in its habitat and is therefore regarded as a good indicator for valuable wetland systems.

In Northern Europe it is absent from Norway. The first record for Denmark occurred in 1959, for Finland in 1996 and for Sweden and the United Kingdom in 2003. Worth mentioning are the invasions like observations in the UK where the species was described as new from Portland (1 July, Cade 2004). The same year another 11 specimens were identified, some of them from earlier dates which were first misidentified or left unidentified. Also 2 records from the Channel Islands in 2001 were identified later on.

This specimen was caught in an area with a mosaic of wet habitat types. Here, other typical wetland species like *Xanthorhoe biriviata, Orthonama vittata, Perizoma didymata, Perizoma sagittata, Eupithecia valerianata, Spilosoma urticae* and *Celaena haworthii* occur. However, after the first cathc on 09 July 2004, it was not certain whether the species originated from a local population or whether it was a vagrant. The catch of a second individual on 20 June 2005 probably proves that there occurs a population in the nature reserve "Kleine Netevallei" indeed.

Acknowledgements

I would like to thank Yvan Coenraerds, Valère Dupont and Dana Cap who helped me with moth-trapping that night and Thomas Merckx and Wouter van Reusel for proofreading this paper.

References

Cade, M. 2004. Splendid Brocade *Lacanobia splendens* (Hb.) – The first British records. — *Atropos* **22**: 42–44.

Karsholt, O. & Razowski, J. 1996. *The Lepidoptera of Europe: a distributional checklist.* — Apollo Books, Stenstrup.

Lhomme, L. 1923–1935. *Catalogue des lépidoptères de France et de Belgique. Volume I. Macrolépidoptères.* — Le Carriol, par Douelle (Lot).

Nowacki, J. 1998. *The Noctuids (Lepidoptera, Noctuidae) of Central Europe.* — Pensoft Publishers, Bratislava.

Boekbesprekingen

Brown, J. W.: *World Catalogue of Insects 5, Tortricidae* (*Lepidoptera*).
17,5 × 24,5 cm, 741 p., Apollo Books, Aps., Kirkeby Sand 19, DK-5771 Stenstrup, Denmark, apollobooks@vip.cybercity.dk, 2005, gebonden, 960,00 DKK (10% korting als men intekent op de hele reeks) (ISBN 87-88757-41-2).

In dit vijfde deel in de reeks "*World Catalogue of Insects*" (het tweede deel over Lepidoptera) worden de Tortricidae behandeld. Deze familie is de tweede grootste bij de Microlepidoptera en wordt enkel vooraf gegaan door de Gelechiidae. Ze telt iets meer dan 9000 soorten en is verspreid in alle continenten. De grootste diversiteit wordt in het Neotropische gebied bereikt. Verder zijn vele soorten uitermate variabel wat geleid heeft tot het beschrijven van vele subspecies, variëteiten en vormen en tot het ontstaan van lange lijsten men synoniemen. Een prachtig voorbeeld hiervan is *Acleris cristana* ([Denis & Schiffermüller], 1775) met niet minder dan 123 synoniemen. Verder zijn enkele Tortricidae erg grote schadeveroorzakers in land- en tuinbouw en er bestaat een enorme berg literatuur over b.v. *Cydia pomonella* (Linnaeus, 1758) en *Choristoneura fumiferana* (Clemens, 1865).

De systematiek van de Tortricoidea is in de loop der jaren nogal wat veranderd, maar momenteel aanvaardt men slechts één familie, Tortricidae, met een aantal subfamilies. Die worden in het boek wel vermeld maar alle genera worden in alfabetische volgorde opgesomd. Achter elke naam staat vermeld tot welke subfamilie en tot welk tribus het betreffende genus hoort. In sommige gevallen is de juiste systematische positie onduidelijk of controversieel en dan heeft de auteur ze zo nauwkeurig mogelijk vermeld, zoals "Unplaced Tortricinae".

Binnen elk genus staan de soorten alfabetisch gerangschikt. Bij elke soort wordt de auteur en jaar van beschrijving vermeld, alsook de referentie naar de oerbeschrijving. De type-lokaliteit wordt aangegeven en de plaatsing van het holotype of de syntypes. Jammer genoeg wordt er geen informatie gegeven over de geografische verspreiding of de voedselplanten van de rups.

Achteraan volgt een alfabetische index van de namen in Lepidoptera en een 32-tal notities, voornamelijk over nomenclatuurproblemen. Het boek is keurig uitgegeven en zal lange tijd dienst doen als referentiewerk voor al wie te maken heeft met Tortricidae.

Willy De Prins

LIKONA: *Jaarboek 2003*.
21 × 26 cm, 132 p., Limburgse Koepel voor Natuurstudie, Het Groene Huis, Bokrijk, B-3600 Genk, paperback, 2004 (ISSN 0778-8495).

In dit dertiende LIKONA Jaarboek werden weer enkele aspecten uit de Limburgse natuur belicht. Specifiek in dit jaarboek gaat het over de extractie van de Limburgse gegevens uit de verschillende databanken die er in Vlaanderen bestaan. Het is de bedoeling om bij de opmaak van het Provinciaal Milieubeleidsplan 2004–2008 met de gegevens daarvan rekening te houden. Een van de meest opvallende initiatieven daarbij is de bundel maatregelen ter bescherming van de veldparelmoervlinder (*Melitaea cinxia*) te Zutendaal.

In een eerste hoofdstuk worden heel wat lijsten van lokale en/of bedreigde soorten besproken, o.a. mieren, sprinkhanen en krekels, libellen, dagvlinders. In het hoofdstuk over de fauna van het mijnterrein van Eisden-Lanklaar komen eveneens heel wat insecten aan bod, o.a. loopkevers, dagvlinders, krekels en libellen. In het becommentarieerde literatuuroverzicht staat heel wat informatie over wat er in diverse tijdschriften over de Limburgse natuur werd gepubliceerd. Daarin staan heel wat stukjes over diverse insectengroepen.

Zoals gewoonlijk is het jaarboek bijzonder stijlvol en kleurrijk uitgegeven en biedt het heel wat interessante en boeiende lectuur voor wie meer wil weten over de natuur in de meest groene provincie van Vlaanderen.

Willy De Prins

A new *Geogarypus* from Baltic amber (Pseudoscorpiones: Geogarypidae)

Hans Henderickx

Abstract. *Geogarypus gorskii* **sp. n.**, a new pseudoscorpion from Baltic amber is described.

Samenvatting. *Geogarypus gorskii* **sp. n.**, een nieuwe pseudoschorpioen van Baltische amber wordt beschreven.

Résume. *Geogarypus gorskii* **sp. n.**, un nouveau pseudoscorpion est décrit de l'ambre baltique.

Key words. Pseudoscorpion – *Geogarypus gorskii* sp. n. – Baltic amber.

Henderickx, H.: Department of Biology, Universiteit Antwerpen (UA), Groenenborgerlaan 171, 2020 Antwerpen, Belgium, (Address for correspondence: Hemelrijkstraat 4, B-2400 Mol) hans.henderickx@pandora.be.

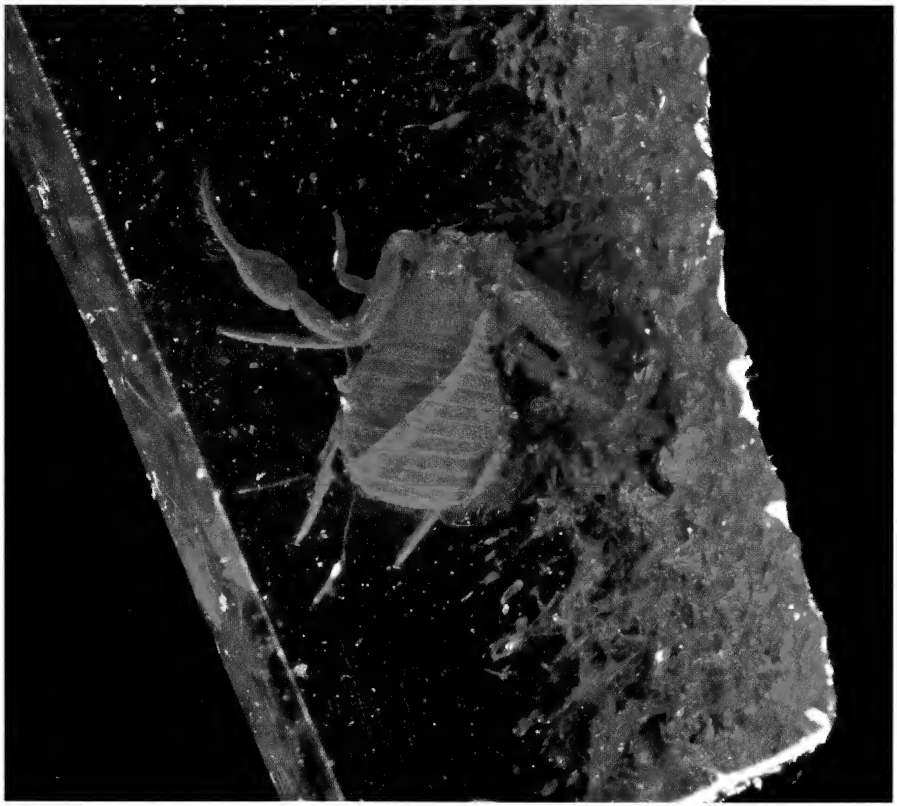


Fig. 1.: *Geogarypus gorskii* **sp. n.**, holotype.

Introduction

A fossil pseudoscorpion in Baltic amber from the collection of Andrzej Gorski was studied. The specimen has a subtriangular carapace and 4 eyes on ocular tubercles, situated away from the anterior margin of the carapace and therefore fits in the Geogarypidae. The presence of accessory teeth on the fixed chelal finger and the absence of a sulcus on the dorsal surface of pedipalpal chela further determine the species as a *Geogarypus* (Harvey 1986). Two fossil *Geogarypus* species from Baltic amber are documented: *Geogarypus macrodactylus* Beier, 1937 and *Geogarypus major* Beier, 1937 (Beier 1937). The large size and the dimensions of the pedipalp distinguish the examined specimen clearly from both previous, hence it is described here as a new species.

Material and methods

The specimen is fossilized in a clear yellow piece of Baltic amber (20×8×3 mm; 0.4 g). The amber has 4 polished facets and an amber crust on two sides. Some of the original resin lamination (flow lines) is visible in the piece. Additional inclusions are botanic hairs and a single Collembola. The immediate area of the fossil is darker reddish. The view on the fossil is disturbed by the whitish emulsion 'Baltic mould' mostly on the ventral side (coxa), the genital area and on parts of the chela, as well by cracks and the presence of an amber crust on the right side of the specimen. The fossil is embedded very near the crusted surface therefore the right pedipalp as well as right leg 1 and right leg 2 are partially lost.

The most important parts of the specimen are well visible. Translucent illumination even reveals a symmetrical dorsal pattern of whitish spots on the fossil, quite unique with Baltic amber specimens. Obviously the tergites are locally thinner or more translucent.

After examination the amber was coated for preservation on a rotating device in viscous Araldite Epoxy. Examination and measurements have been carried out with a Leitz microscope and Optika Photolib software. All measurements are in mm; (length=L × width=W), the ratio is the length/width index of an article.

Systematics

***Geogarypus gorskii* sp. n.** (Figs. 1, 2, 3, 4)

Type material: Female holotype, Baltic amber, Poland, Danzig. The specimen is temporarily in the personal collection of Andrzej Gorski, (Bielsko-Biala, Poland) and will subsequently be deposited in the collections of the Natural Museum ISEZ PAN ul. Sebastiana 9, Kraków, Poland).

Etymology: Patronym in honour of Andrzei Gorski, who found the specimen and allowed studying it.

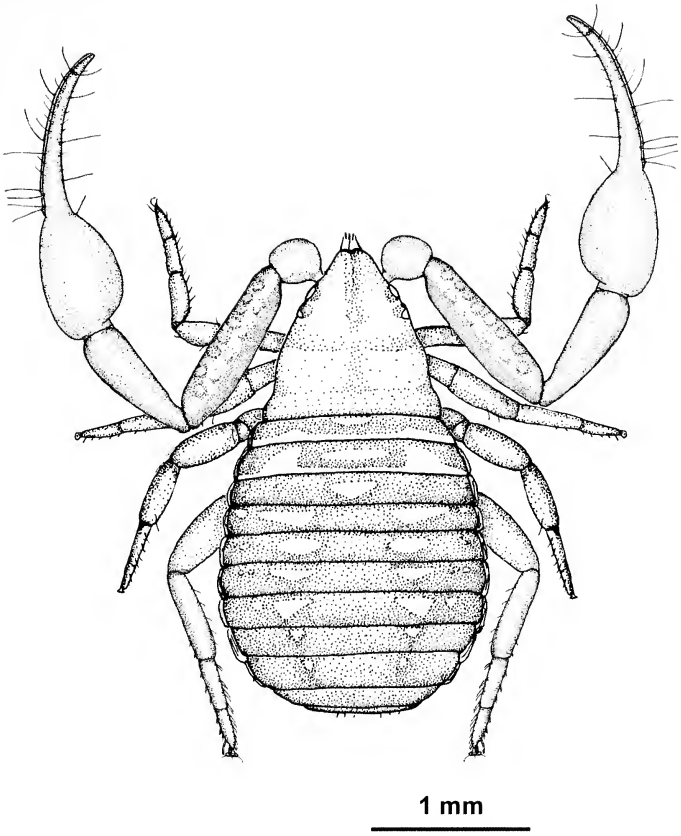


Fig. 2.: *Geogarypus gorskii* **sp. n.**, habitus reconstruction from holotype.

Diagnosis: A large diplotarsate *Geogarypus* species with slender pedipalps and a femur with large granulated pustules. Fixed chelal finger with 8 trichobothria, distal teeth slightly retrorse but not curved. Tergites with typical spotted pattern. Galea with at least four rami.

Female holotype: description: (measurements in mm, ratio is L/W): Carapace wider than long (0.89×). Chaetotaxy of carapace and opistosoma unobservable. Carapace and opistosoma granulated, granules irregular, 0.013 – 0.015, separated, space 0.0043- 0.0050. Both pairs of eyes well developped. Chelicera hardly observable (amber crack), galea with at least four rami.

Tergites with a typical pattern of symmetric light spots. (Fig. 2.). This is most probably the negative image of the original dorsal pattern, since it is only visible in translucent light. Tergites I and II with median and connected paired spots, tergite III with median spot only, tergite IV–IX with paired spots only. Other colour patterns in Baltic amber amber (shades of amber yellow and red) are

almost always the result of artefacts during the fossilization process: the original colour vanishes completely. Pedipalps (Fig. 3a) granulated, femur with large pustules. Fixed finger only granulated dorsally, external trichobothria in a smooth zone without granulation. Trochanter 1.37×; femur 3.80×; tibia 2.73×; chela (with pedicel), 4.31×, hand 1.95× longer than broad. Hand: fixed chelal finger with 8 trichobothria, movable finger with 4 trichobothria (Fig. 3b); ***it*** is placed more distally than ***st*** on the observable chela.

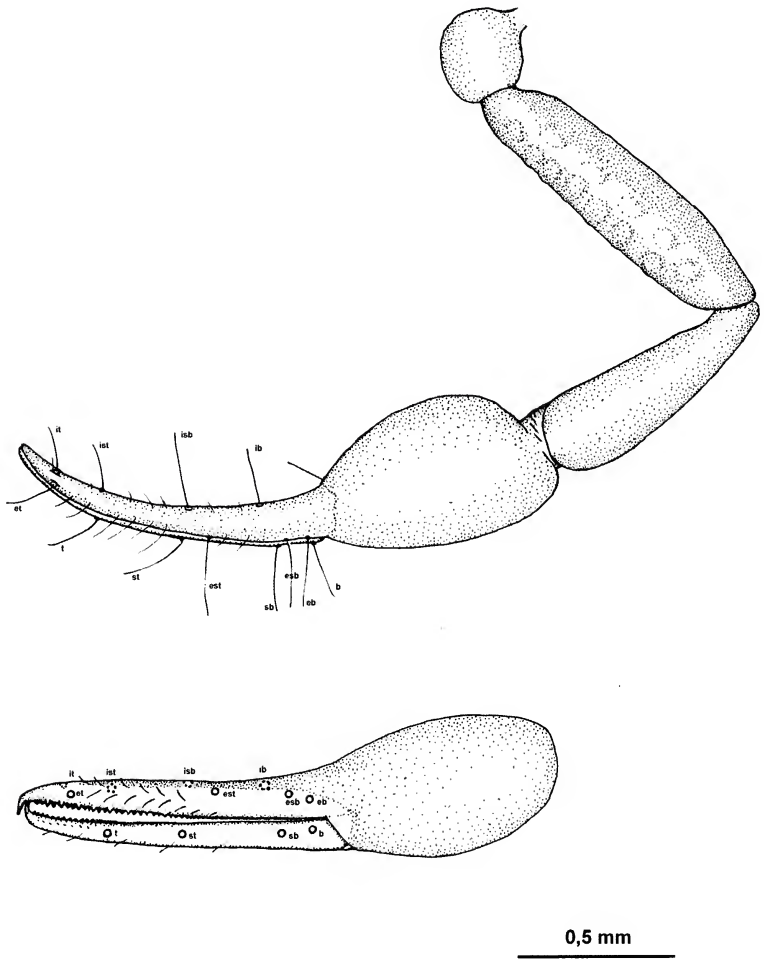


Fig. 3: *Geogarypus gorskii* **sp.n.**, **a**.– pedipalp, dorsal.; **b**.– chela, external lateral view.

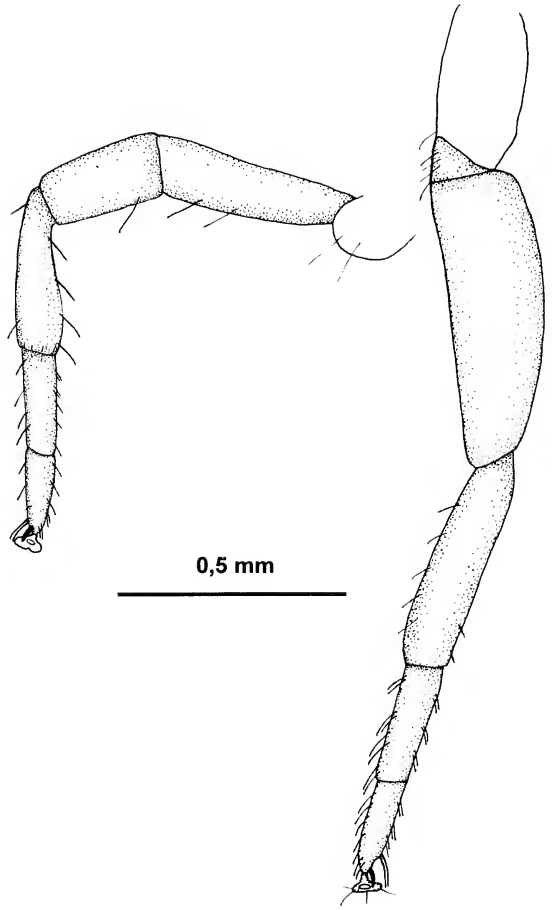


Fig. 4: *Geogarypus gorskii* **sp.n.**, **a**.– leg I; **b**.– leg IV.

Fixed finger with 47 teeth, not curved and in two rows, not significant spaced. Teeth of movable finger curved in distal part, first distal 14 pointed, reduced to small projections proximally. Diplotarsate, but tarsal distinction sometimes unclear, at least 2 monotarsate legs. Aroleum a little longer than claws.

Measurements (mm): Body length 2.81. Granulations 0.013–0.015, separated, space 0.0043–0.0050. Pedipalp: trochanter 0.33/0.24; femur

0.99/0.26; tibia 0.71/0.26; chela (with pedicel) 1.90/0.44; hand 0.86/0.44; movable finger L=1.05.

Carapace 1.02/1.14; cucullus L=0.23. Anterior eye approximately the same size as posterior eye (0.08). Leg I: trochanter width (length not visible) 0.15; basifemur 0.43/0.12; telofemur 0.27/0.15; tibia 0.36/0.10; basitarsus 0.22/0.07; telotarsus 0.18/0.07.

Leg IV: trochanter width 0.18; trochanter 0.21/0.62; femur 0.62/0.21; tibia, 0.49/0.12; basitarsus 0.27/0.07; telotarsus 0.19/0.07.

Discussion: The species differs from both Baltic fossil *G. macrodactylus* Beier, 1937 and *G. major* Beier, 1937 by it's large size and the dimensions of the pedipalp. The femur and the tibia are more slender than *G. macrodactylus*, and *G. maior*. The body size of the new species (2.81) is 2.3× the size of *G. macrodactylus* and 1.8× the size of *G. major*.

The species differs from all extant species. Concerning the other larger species in the nearest area to the new taxon: *G. maroccanus* Beier, 1961 (Beier 1961, Callaini 1988) has shorter fingers (finger/hand ratio) and a pedipalpal tibia without pronounced pustules, a more developed cucullus and a different dorsal pattern; *G. shulovi* Beier, 1963 has much more slender chela (Beier 1963) and no pustules on the femur.

Distribution

Found in Baltic amber, a fossil resin from the Upper Eocene Baltic amber forest, dated approximately 46 million years BP.

Acknowledgements

The author is grateful to Juan Antonio Zaragoza (Universidad de Alicante) who offered valuable comments and suggestions and Dr. Mark Judson (Muséum National d'Histoire Naturelle de Paris) for advice in taxonomic positioning the specimen. Thanks are due to Dr. Luc De Bruyn (Universiteit Antwerpen (UA)) and Dr. Herwig Leirs (Universiteit Antwerpen (UA)) for laboratory facilities.

References

Beier, M. 1937. Pseudoscorpione aus dem Baltischen Bernstein. — *Festschrift zum 60. Geburtstage von Professor Dr. Emrik Strand, Riga* **2**: 302–316.

Beier, M. 1961. Nochmals über iberische und marokkanische Pseudoscorpione. — *Eos, Madrid* **37**: 21–39.

Beier, M. 1963. Die Pseudoscorpioniden-Fauna Israels und einiger angrenzender Gebiete. — *Israel Journal of Zoology* **12**: 183–212.

Callaini, G. 1988. Gli Pseudoscorpioni del Marocco; (Notulae Chernetologicae, XXVII). — *Annali del Museo Civico di Storia Naturale di Genova* **87**: 31–66.

Harvey, M. S., 1986. The australian Geogarypidae, new Status, with a review of the Generic Classification. — *Australian Journal of Zoology* **34**: 753–78.

New species of Platygastrinae from Argentina (Hymenoptera: Platygastridae)

Peter Neerup Buhl

Abstract. Five new species, viz. *Amblyaspis golbachi*, *Metanopedias tucumanensis*, *Platygaster verticalis*, *Synopeas intermedius*, and *S. recurvatus* are described from Argentina.

Samenvatting. Nieuwe soorten Platygastrinae uit Argentinië (Hymenoptera: Platygastridae) Vijf nieuwe soorten, *Amblyaspis golbachi*, *Metanopedias tucumanensis*, *Platygaster verticalis*, *Synopeas intermedius* en *S. recurvatus* worden beschreven uit Argentinië.

Résumé. Espèces nouvelles de Platygastrinae d'Argentine (Hymenoptera: Platygastridae) Cinq espèces nouvelles, *Amblyaspis golbachi*, *Metanopedias tucumanensis*, *Platygaster verticalis*, *Synopeas intermedius* et *S. recurvatus* sont décrites.

Key words. Hymenoptera – Platygastridae – new species – Argentina

Buhl, P. N.: Troldhøjvej 3, DK-3310 Ølsted, Denmark, e-mail: pnbuhl@hotmail.com.

The species described below were in a loan from the Hungarian Natural History Museum, Budapest (Hungary) (courtesy Sandor Csosz), where all specimens are preserved.

***Amblyaspis golbachi* sp. nov.** (figs. 1–4)

Material examined. Holotype ♀: Argentina, prov. Salta, Embarcación, 2–6.II.1950 (R. Golbach).

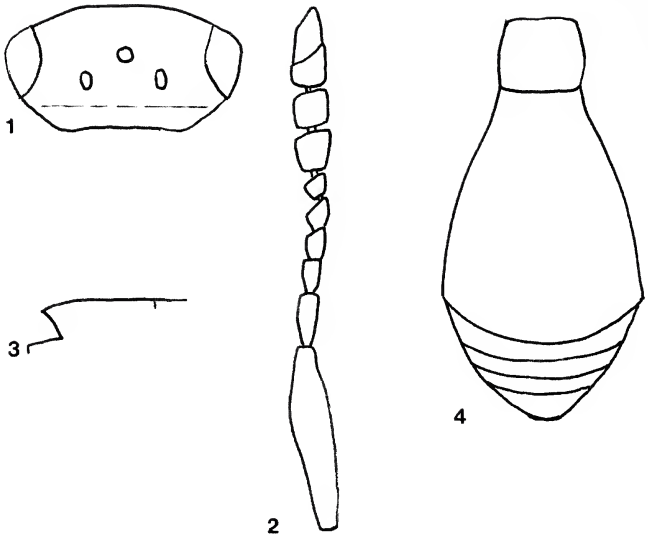
Description. Female: Length 1.1 mm. Black, A1 and legs reddish brown, base of tibiae lightest, coxae and last segment of tarsi darkest; A2-A10 dark brown.

Head from above (fig. 1) 1.9× as wide as long, 1.1× as wide as mesosoma; occiput with a strong occipital carina, distinctly reticulate-coriaceous, vertex and frons weakly so. Head in frontal view 1.1× as wide as high; antenna (fig. 2) with A1 shorter than height of head (16:17).

Mesosoma 1.5× as long as wide, very slightly higher than wide. Sides of pronotum finely reticulate-coriaceous all over. Mesoscutum with scattered hairs, finely and evenly reticulate-coriaceous, without notauli; hind margin slightly convex, laterally with a few hairs. Mesopleuron smooth. Scutellum (fig. 3) moderately hairy, sculptured as mesoscutum, posteriorly semitransparently pointed. Metapleuron with pilosity all over. Propodeal carinae fused and dark.

Fore wing 0.9× as long as body, 2.2× as long as wide, almost clear, with dense microtrichia; marginal cilia 0.1 width of wing. Hind wing with marginal cilia 0.4 width of wing.

Metasoma (fig. 4) as long as head and mesosoma combined, about as wide as mesosoma. T1 with two longitudinal keels. T2 smooth, with two small, pubescent basal foveae, medially with a couple of fine carinae to about one-fifth the length of tergite. T3-T6 reticulate-coriaceous all over.



Figs. 1–4. *Amblyaspis golbachi* sp. nov. female: **1**.– head, dorsal view, **2**.– antenna, **3**.– scutellum and propodeum, lateral view, **4**.– metasoma, dorsal view.

This species has a differently shaped scutellum than *A. caramba* Buhl, 2001, less slender antennae than *A. ecuadoriensis* Buhl, 2001, and it lacks notauli in contrast to *A. glistrupi* Buhl, 2001, and it is smaller than these three species, cf. also Buhl (2001).

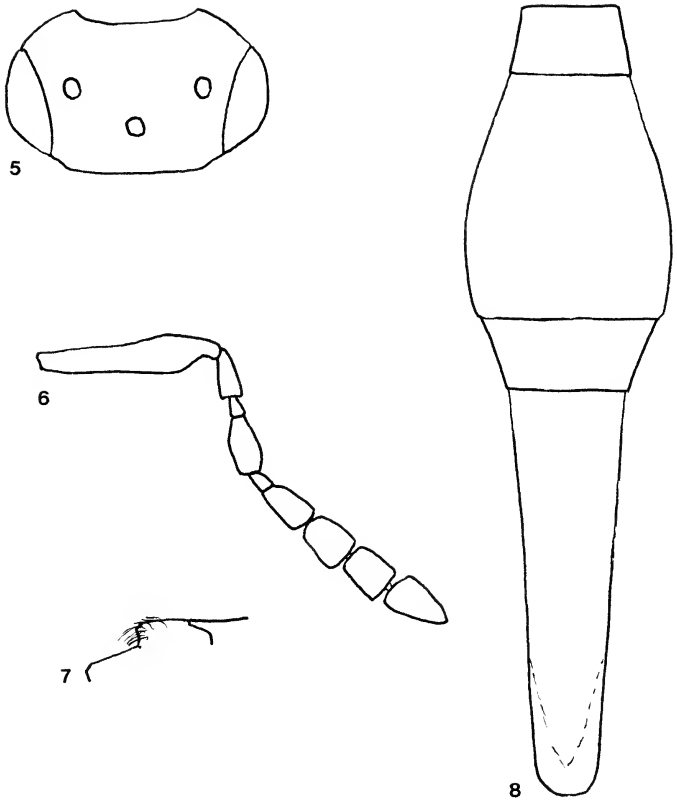
***Metanopedias tucumanensis* sp. nov.** (figs. 5–8)

Material examined. Holotype ♀: Argentina, Tucuman, Dique Cadillal, 16–19.I.1957 (R. Golbach).

Description. Female: Length 2.0 mm. Black, A1-A3 and legs light reddish brown; A4-A9, mandibles and coxae darker brownish.

Head from above (fig. 5) 1.9× as wide as long, 1.3× as wide as mesosoma; occiput distinctly transversely striated, without carina; vertex distinctly reticulate-coriaceous, frons faintly so. OOL slightly longer than ocellar diameter. Head in frontal view 1.2× as wide as high. Antenna (fig. 6) with A1 hardly 0.8× as long as height of head.

Mesosoma 1.8× as long as wide, 1.2× as high as wide. Sides of pronotum smooth, with weak rugosity at anterior corner. Mesoscutum with very few hairs; lateral lobes smooth; mid lobe finely reticulate-coriaceous, smoother posteriorly; notauli complete, mid lobe posteriorly rather narrowly prolonged over base of scutellum; scuto-scutellar grooves with numerous long hairs. Mesopleuron smooth. Scutellum (fig. 7) slightly excavated behind, densely hairy. Metapleuron with pilosity all over. Propodeal carinae short, dark, close together.

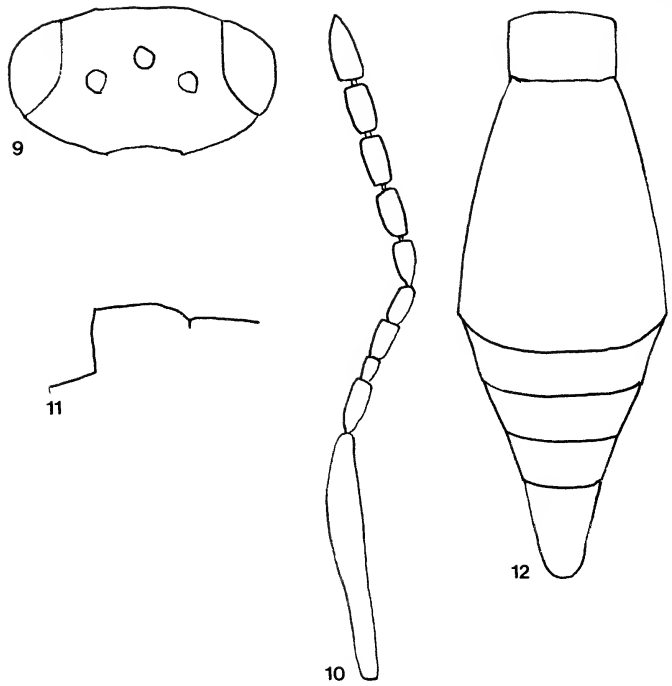


Figs. 5–8. *Metanopedias tucumanensis* sp. nov. female: **5**.– head, dorsal view, **6**.– antenna, **7**.– scutellum and propodeum, lateral view, **8**.– metasoma, dorsal view.

Fore wing reaching middle of T4, 2.7× as long as wide, clear, with moderately dense microtrichia; marginal cilia short. Hind wing with marginal cilia 0.25 width of wing.

Metasoma (fig. 8) 1.6× as long as head and mesosoma combined, as wide as mesosoma. T1 smooth, with two strong longitudinal keels. T2 with faint indications of striation to hardly 0.4 of length in basal foveae, along middle with a single longitudinal carina to hardly 0.4 of length. T3 smooth, at midlength with a transverse row of six deeply implanted hairs. T4 with longitudinal rugosity in basal 0.3, rest almost smooth.

Differs from *M. antennalis* Buhl, 2004, *M. brunneipes* (Ashmead, 1887) and *M. lasiopterae* (Kieffer, 1916) in antennal structure. Most similar to *M. lasiopterae*, but this species differs also from *M. tucumanensis* e.g. in having a sharp carina on occiput, cf. also Kieffer (1926), Huggert (1980), and Buhl (2004).



Figs. 9–12. *Platygaster verticalis* sp. nov. female: **9**.– head, dorsal view, **10**.– antenna, **11**.– scutellum and propodeum, lateral view, **12**.– metasoma, dorsal view.

***Platygaster verticalis* sp. nov.** (figs. 9–12)

Material examined. Holotype ♀: Argentina, prov. Salta, Embarcación, 2–6.II.1950 (R. Golbach).

Description. Female: Length 1.5 mm. Black, antennae and legs hardly lighter; part of fore tibia and segments 1-4 of fore tarsus light brown; trochanters, base of hind tibia, and segments 1-4 of mid and hind tarsi dark reddish brown.

Head from above (fig. 9) 2.0× as wide as long, very slightly wider than mesosoma; occiput rounded, finely and densely transversely striated; vertex and frons weakly reticulate-coriaceous; OOL equal to LOL and to diameter of lateral ocellus. Head in frontal view 1.2 x as wide as high; antenna (fig. 10) with A1 0.9× as long as height of head.

Mesosoma 1.4× as long as wide, 1.1× as high as wide. Sides of pronotum dull, finely reticulate-coriaceous all over. Mesoscutum with very sparse, short hairs, finely and evenly reticulate-coriaceous; notauli weak, missing in anterior 0.25, mid lobe posteriorly slightly blunt, hardly prolonged; scuto-scutellar grooves narrow, with a few hairs. Mesopleuron smooth. Scutellum (fig. 11) sculptured and hairy as mesoscutum, posteriorly vertical, without modifications.

Metapleuron with pilosity all over. Propodeal carinae parallel, well separated, area between them about as long as wide, smooth and shiny.

Fore wing almost reaching tip of metasoma, 2.4× as long as wide, almost clear and with rather sparse microtrichia; marginal cilia short. Hind wing with two hamuli, marginal cilia 0.2 width of wing.

Metasoma (fig. 12) slightly more than 1.1 x as long as head and mesosoma combined, fully 0.8× as wide as mesosoma. T1 evenly crenulated. T2 finely striated in basal foveae to half of length, medially with short striation hardly as long as T1. T3-T6 almost smooth; T3-T5 each with a complete transverse row of deeply implanted hairs, on T5 slightly unevenly distributed; T6 with some scattered hairs in apical half.

A distinct species on account of shape of scutellum to which its name refers. Approaches *P. dentata* Buhl, 2001 from Honduras, but this species has much less slender flagellum than *P. verticalis*, cf. also Buhl (2001). *P. topali* Buhl, 2004 from Argentina has scutellum nearly vertical behind but differs from *P. verticalis* also in shape of head, in having shorter notauli and more pointed metasoma, cf. also Buhl (2004).

***Synopeas intermedius* sp. nov.** (figs. 13–16)

Material examined. Holotype ♀: Argentina, prov. Salta, Urundel, 25–31.I.1950 (R. Golbach).

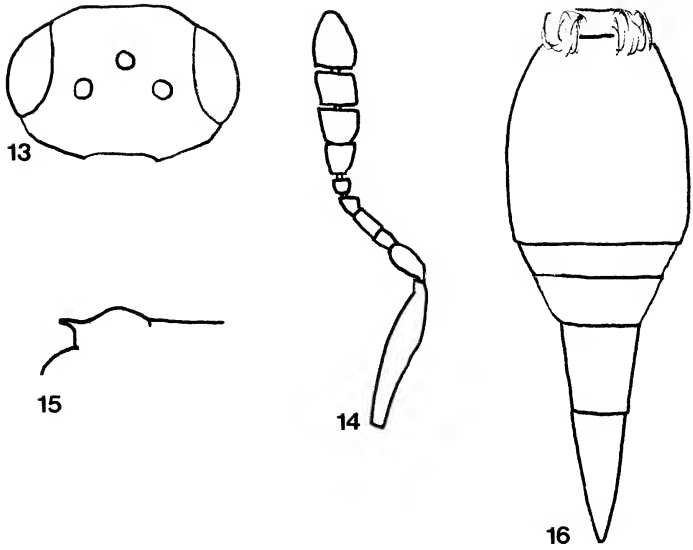
Description. Female: Length 1.2 mm. Dull black, A1 and legs dark reddish brown; base of A1, trochanters, part of fore tibia, base of mid and hind tibiae, and segments 1-4 of all tarsi lighter; A2-A10 dark brown.

Head from above (fig. 13) 1.7× as wide as long, 1.2× as wide as mesosoma, evenly reticulate-coriaceous, without occipital carina, occiput evenly rounded. OOL 2× ocellar diameter. Head in frontal view 1.2× as wide as high; antenna (fig. 14) with A1 shorter than height of head (6:7).

Mesosoma 1.6× as long as wide, fully 1.1× as high as wide. Sides of pronotum reticulate-coriaceous, slightly smoother below. Mesoscutum with a few hairs, reticulate-coriaceous; notauli almost complete, anteriorly erased in rugosity, posteriorly almost meeting in front of scutellum, mid lobe hardly prolonged here; scuto-scutellar grooves narrow, with some hairs. Mesopleuron smooth. Scutellum (fig. 15) sculptured and hairy as mesoscutum; spine dark, without lamella. Metapleuron with pilosity all over. Propodeal carinae dark.

Fore wing clear, reaching tip of metasoma, 2.6× as long as wide, without marginal cilia. Hind wing with marginal cilia 0.4 width of wing.

Metasoma (fig. 16) 1.2× as long as head and mesosoma combined, about as wide as mesosoma, at its widest 1.2 x as wide as high. T2 smooth. T3-T6 convex, with rugosity, smooth at junctions, hardly hairy.



Figs. 13–16. *Synopeas intermedius* sp. nov. female: **13**.– head, dorsal view, **14**.– antenna, **15**.– scutellum and propodeum, lateral view, **16**.– metasoma, dorsal view.

Fore wing clear, reaching tip of metasoma, 2.6× as long as wide, without marginal cilia. Hind wing with marginal cilia 0.4 width of wing.

Metasoma (fig. 16) 1.2× as long as head and mesosoma combined, about as wide as mesosoma, at its widest 1.2 x as wide as high. T2 smooth. T3-T6 convex, with rugosity, smooth at junctions, hardly hairy.

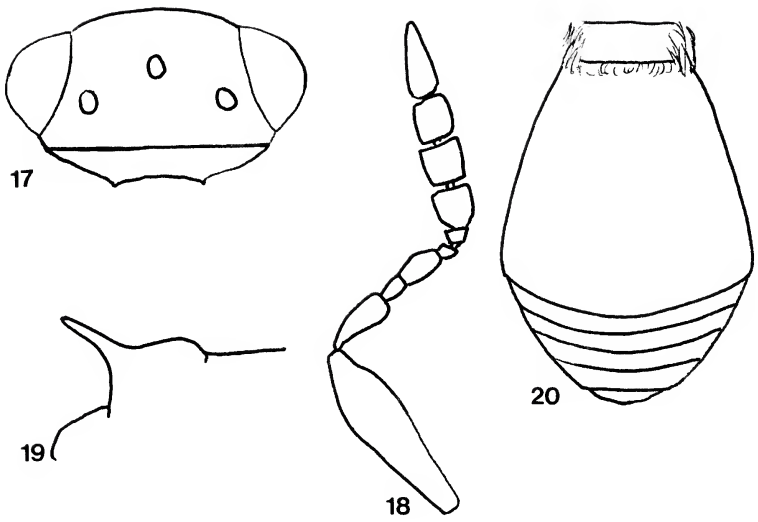
This species is intermediate between *Synopeas* s. str. and *Sactogaster* Förster, 1856. Thus, it differs from *Synopeas* (*Sactogaster*) *ilsei* Vlug, 1995 (= *S. affinis* (Ashmead, 1894)) and *Synopeas* (*Sactogaster*) *rufipes* (Ashmead, 1894) in shape of second sternite, from *S. ilsei* also in sculpture, from *S. rufipes* also in colour, and from both also in having longer OOL, cf. Kieffer (1926). *S. intermedius* is most similiar to *S. guatemalae* Buhl, 2003, but this species has brighter coloured antennae and legs, more transverse A7-A9, and striated T2, cf. Buhl (2003).

***Synopeas recurvatus* sp. nov.** (figs. 17–20)

Material examined. Holotype ♂: Argentina, Tucuman, Lacavera, 23–28.XI.1951 (M.L. Aczél).

Description. Male: Length 1.1 mm. Black, A1-A6, mandibles and legs light reddish, A7-A10 brown.

Head from above (fig. 17) 1.9× as wide as long, 1.1× as wide as mesosoma, strongly and uniformly reticulate-coriaceous, with a very strong occipital carina; lateral ocelli separated from eye by their diameter. Head in frontal view almost 1.2× as wide as high. Antenna (fig. 18) with A1 0.7× as long as height of head; flagellar pubescence at most about 0.3 width of segments.



Figs. 17–20. *Synopeas recurvatus* sp. nov. male: **17**.– head, dorsal view, **18**.– antenna, **19**.– scutellum and propodeum, lateral view, **20**.– metasoma, dorsal view.

Mesosoma 1.5× as long as wide, 1.1× as high as wide. Sides of pronotum strongly reticulate-coriaceous, smoother along lower margin. Mesoscutum with sparse hairs, slightly less distinctly reticulate-coriaceous than head; notauli fading out anteriorly, mid lobe posteriorly slightly blunt, a little prolonged to base of scutellum, brownish at tip; scuto-scutellar grooves wide, with a few hairs. Mesopleuron smooth. Scutellum (fig. 19) sculptured and hairy and mesoscutum, with an upcurved semitransparent spine with a narrow vertical lamella below. Metapleuron smooth, with pilosity only posteriorly and below. Propodeal carinae semitransparent.

Fore wing as long as body, 2.6× as long as wide, slightly brownish and with dense microtrichia, hardly with marginal cilia. Hind wing 6.1× as long as wide; marginal cilia about one-third the width of wing.

Metasoma (fig. 20) 0.9× as long as mesosoma, 0.9× as wide as this. T2 smooth, this tergite as well as T3-T7 roughly reticulate along hind margin; apical tergites virtually bare.

This species is distinct on account of unusually strong occipital carina and shape of scutellar spine. Similar in this last respect to some species of *Synopeas*-subgenus *Sactogaster* Förster, 1856 (e.g. *S. weaveri* Buhl, 2001), but due to the short metasoma (which is long even in males of *Sactogaster*) *S. recurvatus* almost certainly belongs to *Synopeas* s. str.

References

Buhl, P. N. 2001. Taxonomical notes on Platygastridae (Hymenoptera, Platygastroidea). — *Entomofauna* **22**: 17–38.

Buhl, P. N. 2003. New or little known platygastrids (Hymenoptera: Platygastridae). — *Phegea* **31**: 183–193.

Buhl, P. N. 2004. New Neotropical species of Platygastrinae (Hymenoptera, Platygastridae). — *Entomofauna* **25**: 221–236.

Huggert, L. 1980. Taxonomical studies on some genera and species of Platygastrinae (Hymenoptera, Proctotrupoidea). —*Entomologica scandinavica* **11**: 97–112.

Kieffer, J. J. 1926. Scelionidae. – In: F. E. Schulze, W. Kükenthal & K. Heider (editors): *Das Tierreich* 48: 876 pp. Berlin and Leipzig.

Scythridids of the Arabian Peninsula, III: Yemen – One new species and notes on some others (Lepidoptera: Scythrididae)

Bengt Å. Bengtsson

Abstract. A new scythridid species from Yemen, *Scythris tephrella* **sp. n.**, is described and *Enolmis desidella* ssp. *saudita* P.d'E. is raised from subspecies to species rank. New information is supplied on some other species from the Arabian Peninsula.

Samenvatting. Scythrididae van het Arabisch Schiereiland, III: Jemen – een nieuwe soort en bemerking over enkele andere soorten (Lepidoptera: Scythrididae)
Een nieuwe Scythrididae soort wordt beschreven uit Jemen, *Scythris tephrella* **sp. n.**, en *Enolmis desidella* ssp. *saudita* P.d'E. wordt tot de soortrang verheven. Nieuwe informatie over enkele andere soorten uit het Arabisch Schiereiland wordt meegedeeld.

Resumé. Scythrididae de la Péninsule arabique, III: Yemen Une nouvelle espèce et des notes sur d'autres espèces (Lepidoptera: Scythrididae)
Une nouvelle espèce de Scythrididae de Yemen, *Scythris tephrella* **sp. n.**, est descrite, et *Enolmis desidella* ssp. *saudita* P.d'E. est élevé du rang de sous-espèce à espèce. Des renseignements nouveaux sont donnés concernant d'autres espèces de la Péninsule arabique.

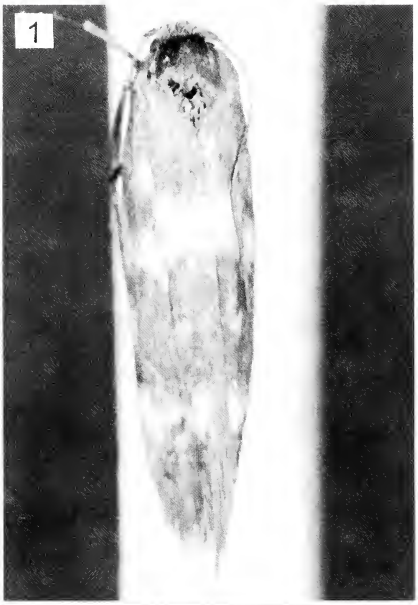
Zusammenfassung. Eine neue Art aus Jemen, *Scythris tephrella* **sp. n.**, wird beschrieben, und den Rang des Taxon *Enolmis desidella* spp. *saudita* P.d'E. ist von Subspecies zu Species gehebt. Neue Angaben über einige anderen Arten aus dem Arabischen Halbinsel sind vorgestellt.

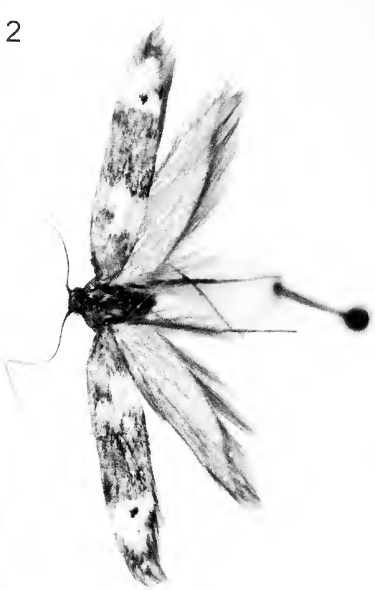
Key words: Scythrididae – *Scythris* – Yemen – taxonomy – faunistics.

Bengtsson, B. Å.: Lokegatan 3, S-386 93 Färjestaden, Sweden, bab1@spray.se

In recent years new information has been obtained with reference to the scythridid fauna of the Arabian Peninsula. Passerin d'Entrèves (1986) examined material from Saudi Arabia and described one new species and one subspecies of *Enolmis*. Later, Passerin d'Entrèves & Roggera (2004) described a new species of the genus *Apostibes*, and they also extended the known distribution area for some species from Saudi Arabia previously not known. From Oman, six new species were described along with the presentation of five other species from Oman that were recorded for the first time (Bengtsson 2002a). A large collection of scythridids from Yemen was examined by Bengtsson (2002b) and the outcome was no less than 39 species new to science.

Dr. Wolfram Mey, Humboldt-Universität zu Berlin, and Dr. Lauri Kaila, Finnish Museum of Natural History, kindly sent me additional material originating from Yemen. Some remaining scythridids from an earlier sending, generously provided by Mr. Ole Karsholt, Zoological Museum, University of Copenhagen, were still at my disposal, and are part of the account in this article. I owe these three colleagues a great debt for allowing me to examine the scythridid moths from which an entire new species and some additional interesting information about the scythridid fauna of the Arabian Peninsula were discovered. Finally, I want to thank Dr. Angela Roggero and Prof. Pietro Passerin d'Entrèves for letting me include 3 paratypes of *S. tephrella* **sp. n.** in the type series.





Figs. 1–4. Imagines of Scythrididae. **1**.– ***Enolmis arabica*** P. d'E., Yemen, 14.XI.1996, 14.46/49.13, Al Ain, Al Mukalla, 150 m, leg. H. Hacker, in coll. ZMHB [Berlin]; **2**.– ***Enolmis saudita*** P. d'E. **stat. nov.,** Yemen, Prov. Sana'a, Jabalan, Nabai Shu'ayb, SE side, 3450 m, 19.iv.1998, M. Fibiger leg., in coll. ZMUC [Copenhagen], (Genitalia on slide BÅB 777X); **3**.– ***Scythris tephrella*** sp. n. Holotype, Yemen, 14.XI.1996, 14.46/49.18, Al Ain, Al Mukalla, 150 m, leg. H. Hacker, in coll. ZMHB [Berlin], (Genitalia on slide BÅB 1008X); **4**.– ***Enolmis desidella*** (Stt.), Turkey, St. 2383, Adana 1700 m, 18 km N Saimbeyli, 6.VIII.1997, leg. W. De Prins, in coll. BÅB.

Enolmis arabica Passerin d'Entrèves, 1986

Enolmis arabica Passerin d'Entrèves: Lepidoptera: Fam. Scythrididae of Saudi Arabia (Part 1). — *Fauna of Saudi Arabia* **8**: 256–261.

The description of *Enolmis jemenesis* Bgts. (Bengtsson 2002b) was based on three females that both in the external appearance and in the genitalia deviated noticeably from all known species of the genus *Enolmis*. The wingspan of each specimen of the type material was only 10 mm, much less than in any other species, and the coloration of the forewing was unusually dark for an *Enolmis*. From another district of Yemen further *Enolmis* specimens have emerged that have proven to belong to *Enolmis arabica* Passerin d'Entrèves, 1986. The forewing coloration in these specimens (Fig. 1) is darker than the description indicates and the moths are in that respect similar to *E. jemensis*. However, the wingspan is 15–16 mm which better corresponds with what is stated by Passerin d'Entrèves (op cit.) for *E. arabica* (13.5–15 mm).

It is not unusual that the size of the male and female may differ considerably in some species of scythridids, but this is not particularly expressed in *Enolmis*. The still darker coloration in the forewing of *E. jemenensis*, compared to *E. arabica*, is a feature to consider, as well. These circumstances speak for retaining the two taxa as separate species until males and females of at least one of the species are found together.

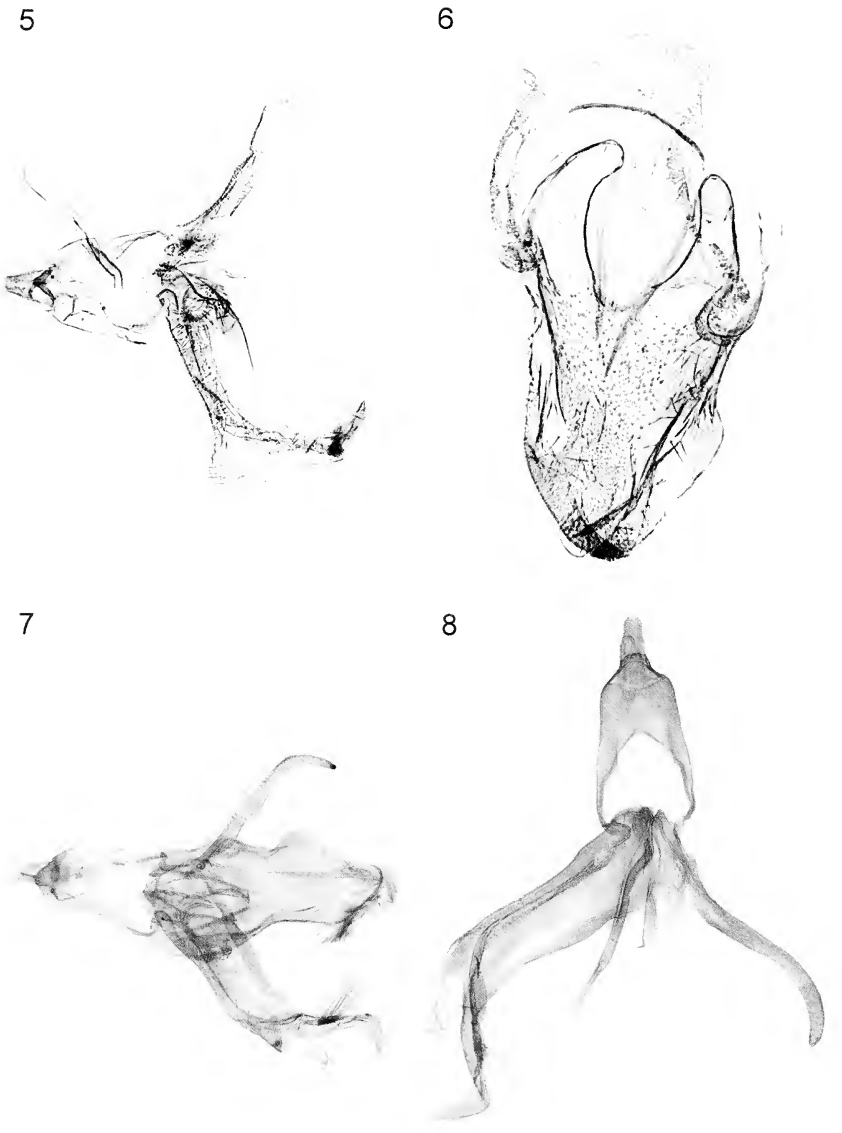
Examined material: 2♂, YEMEN, Sana'a, Sana'a, V.1992, R. Linnavori leg. In coll. NHMH [Helsinki]. One specimen with genitalia on slide BÅB 1020X (Figs. 11–12).

Distribution: Saudi Arabia (prov. 'Asīr); Yemen (prov. Sana'a). **New to Yemen**.

Enolmis saudita Passerin d'Entrèves, 1986 **stat. nov.**

Enolmis desidella ssp. *saudita* Passerin d'Entrèves: Lepidoptera: Fam. Scythrididae of Saudi Arabia (Part 1). — *Fauna of Saudi Arabia* **8**: 256–261.

This is one of the largest species in *Enolmis*. Passerin d'Entrèves (1986), basing his description on eight specimens, stated the wingspan to be about 17 mm. In his article he gave an accurate drawing of the male genitalia. Obviously the variation was small as he did not mention anything about this either regarding the genitalia or the external appearance. Although an apparent difference in the forewing markings between *Enolmis desidella* (Lederer, 1855) and *E. desidella saudita* P.d'E., 1986 may be noted, he refrained from describing a new species. Instead he considered the taxon to be a subspecies of *desidella*, obviously with some hesitation. The female is still unknown.



Figs. 5–8. Male genitalia of ***Enolmis desidella*** (Stt.). **5**.– Turkey, Prov. Mersin, 5 km NW Erdemli, 200 m, 16.VII.1986, leg. M. Fibiger, in coll. ZMUC [Copenhagen], (Genitalia on slide BÅB 441X); **6**.– Tergum 8 (top) and sternum 8 (bottom) of same specimen as in Fig. 5 (not in scale); **7**.– "Syria, Stgr.", in coll. ZMHB [Berlin], (Genitalia on slide Ha 54); **8**.– [Lebanon] "Beirut, Stgr. Typus", in coll ZMHB [Berlin], (Genitalia on slide Ha 204).

The wingspan of *E. desidella* usually falls below 16 mm while ssp. *saudita* regularly exceeds 17 mm. The forewing appearance is quite different, *saudita* by being of "normal" *Enolmis* type, having a dark brown, broad, central fascia covering almost a third of the wing area (Fig. 2). *E. desidella*, however, is frequently of *delicatella* type, exhibiting a white or dirty whitish forewing with small markings, of which the most prominent is a dark greyish or brownish dash at mid dorsum (Fig. 4). Occasionally specimens of *desidella* may have a similar wing pattern as *E. acanthella* (Godart, 1824) but never as dark as in *saudita*. *E. saudita* may also be confused with *E. gigantella* (Lucas, 1942), which is found in Morocco, but the dark pattern is richer brown in *gigantella*.

Some constant differences can be recognized in the genitalia, as well. In *saudita* (Figs. 9–10) the hind lobe at the tip of the left valva is longer and more slender, and the apical brush on the anterior lobe is located closer to the apex that lacks the distal, bent extension. At the base of the incision between the valva lobes there is an additional flap in *saudita*; this lobe is absent in *desidella* (Figs. 5–8). The eighth sternite (S8) is narrower even though in some specimens of *desidella* the sternal plate can be almost as narrow. At the tip of S8 the lateral protuberance is much more prominent in *saudita,* but only a small flap in *desidella*. Even though in exceptional cases slightly overlapping, all these differences point towards two different species, especially the very unlike external appearances. *E. saudita* is therefore considered a *bona species*.

Examined material: 1♂, YEMEN, Prov. Sana'a, Jabalan NabaiShu'ayb. SE side 3450 m. 19.iv.1998. M. Fibiger *et al.* Gen. prep. BÅB 777X. In coll. ZMUC [Copenhagen] – 1♂, Yemen, Prov. Sana'a, 6 km NW Suq Baw'an, 20.iv.1998, 3035 m, M. Fibiger *et al.* In coll. ZMUC [Copenhagen] – 1♂, YEMEN, Prov. Sana'a, Jabalan NabaiShu'ayb. SE side 3450 m. 20.iv.1998. M. Fibiger *et al.* Gen. prep. BÅB 4419. In coll. BÅB.

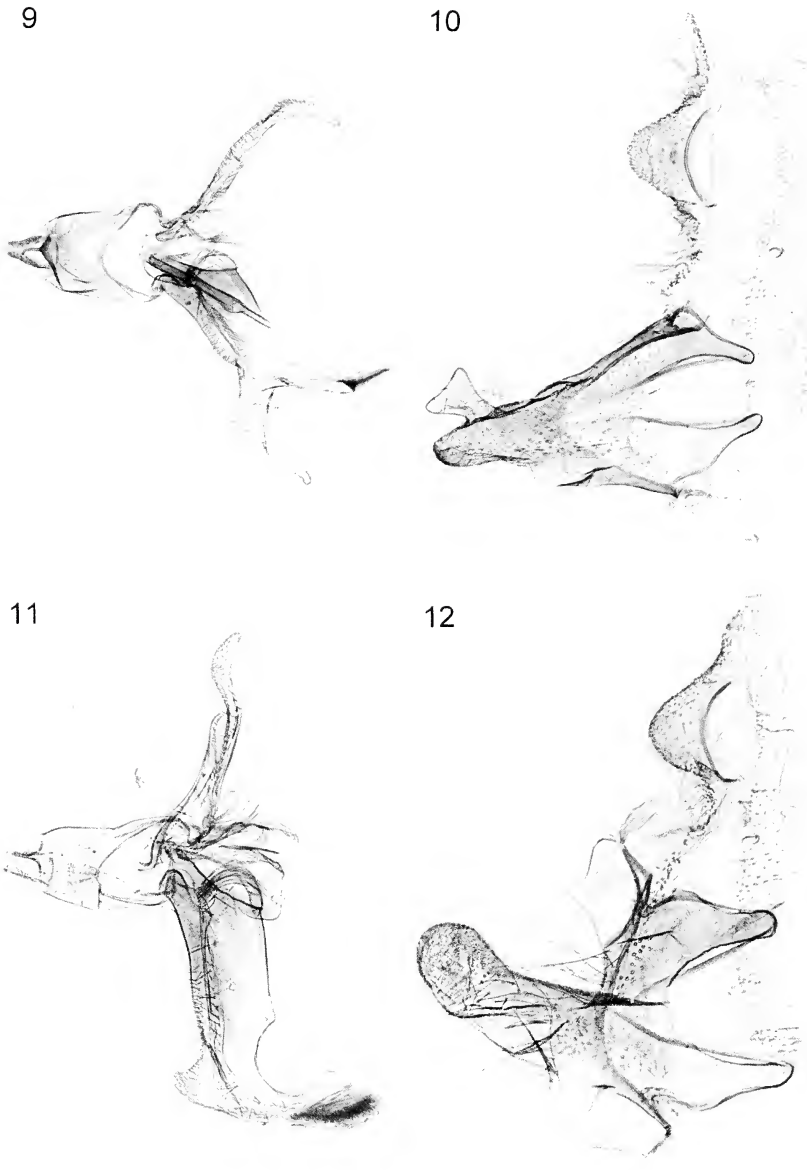
Distribution: Saudi Arabia (prov. 'Asīr), Yemen (prov. Sana'a). **New to Yemen**.

Scythris scyphella Bengtsson, 2002

Scythris scyphella Bengtsson: *Esperiana* **9**: 86.

The members of the *elachistoides* species-group are amongst the smallest scythridids, only having a wingspan of 5–8 mm. *S. scyphella*, one of five species in the group, was described on the basis of solely one female specimen (Bengtsson 2002b). Depending on how to assess the shape of aedeagus and segment 8, the *fibigeri* species-group, comprising four species, might be included in the *elachistoides* species-group.

All species are so far restricted to the Arabian Peninsula with the exception of one recently discovered but still undescribed species from Namibia (Bengtsson 2005). Now the male of *scyphella* has emerged and the genitalia are here described for the first time (Fig. 13–14).



Figs. 9–12. Male genitalia of *Enolmis* spp. **9**.– ***Enolmis saudita*** P. d'E. **stat. nov.,** Yemen, Prov. Sana'a, Jabalan, Nabai Shu'ayb, SE side, 3450 m, 19.iv.1998, M. Fibiger leg., in coll. ZMUC [Copenhagen], (Genitalia on slide BÅB 777X); **10**.– Sternum 8 (left) and tergum 8 (right) of same specimen as in Fig. 9; **11**.– ***Enolmis arabica*** P. d'E., Yemen, Sana'a, Sana'a, V.1992, R. Linnavori, in coll. NHMH [Helsinki], (Genitalia on slide BÅB 1020X); **12**.– Sternum 8 (left) and tergum 8 (right) of same specimen as in Fig. 11.

Description of the male: The external appearance of the male is similar to the female (see Bengtsson 2002b) and the male genitalia are characteristic for the group. The most typical genital features which in combination are separating *scyphella* from other species are 1) the shape of uncus which is laminar with a sclerotized, horseshoe-shaped rim, not converging anteriorly and with a flat hind margin without distinct, sharp corners, 2) gnathos a roundish, comparatively stout, callose sclerotization, 3) a strongly sclerotized structure, attached to the tegumen and sternum 8, short and cone-shaped, slightly differing in shape from other closely related species, and 4) sternum 8 subrectangular with shallow incurvation posteriorly. Aedeagus as in *elachistoides* Bengtsson, 2002, short, broad at base, tapered and bent in middle. Tergum 8 triangular, anteriorly concave.

Examined material: 5♂, YEMEN, 14.XI.1996, 14.46/49.13, Al Ain, Al Mukalla, 150 m, leg. H. Hacker. 2 males with genitalia on slides BÅB 1007X and BÅB 1008X. – 1♀, same data. Genitalia on slide BÅB 1009X. All specimens in coll. ZMHB [Berlin] except one male in coll. BÅB.

Distribution: Yemen (prov. Hadramaul = Hadramawt).

Scythris senecai Bengtsson, 1997

Scythris senecai Bengtsson: *Microlepidoptera of Europe* **2**, Scythrididae: 89.

Examined material: 2♂, YEMEN, 14.XI.1996, 14.46/49.13, Al Ain, Al Mukalla, 150 m, leg. H. Hacker. Genitalia of one male on slide BÅB 1001X. – 1♀, same data. Genitalia on slide BÅB 997X. One male in coll. BÅB, the rest in coll. ZMHB [Berlin].

Distribution: Iran, Libya, Syria and Yemen (prov. Hadramaul = Hadramawt). **New to Yemen**.

Scythris tephrella sp. n.

Holotype: ♂, YEMEN, 14.XI.1996, 14.46/49.13, 150 m, Al Ain, Al Mukalla, leg. H. Hacker. Genitalia on slide BÅB 1058X. In coll. ZMHB [Berlin].

Paratype: 1♂, data as in holotype. Genitalia on slide BÅB 982X. In coll. ZMHB [Berlin] – 2♂, SAUDI ARABIA, SW Arabia, Asir region, Wadi Tihama, 850 m, 23.IV.1979, Amsėl leg. Genitalia on slides PdE 3313 and 3317 – 1♂, SAUDI ARABIA, SW Arabia, Wadi Maraba, 142 km N of Jizan, 350 m, 13.IV.1979, Amsel leg. Genitalia on slide PdE 3315. Last three paratypes in coll. MIZT [Torino].

Diagnosis. *Scythris tephrella* **sp. n**. may be mixed up with some pale ashgrey scythridid species with dark markings, in first place *S. nigrogrammella* Bgts. which only can be separated with certainty by dissection of the genitalia. The new species may also be confused with e.g. *S. valgella* Bgts. that on the other hand exhibits a conspicuous whitish streak along the fold; the similar scythridids *S. tessulatella* Rbl. and *S. cuneatella* Bgts. are considerably smaller though with analogous markings in the forewing. Other species with comparable forewing pattern have a browner hue or larger wingspan.

Imago (Fig. 3)**:** Wingspan 12-13 mm. Head, labial palpi and neck-tuft ivory with some slender, fuscous scales. Scape ivory with some fuscous scales and long pecten, flagellum pale brownish with cilia length about half flagellum diameter. Tegulae ivory with a broad stripe of fuscous scales and two very thin, all three stripes parallel to each other. Forewing ivory with several longitudinal, fuscous lines and streaks: in fold a thin line from base to a dark spot in midwing and a similar thin line on subcostal vein; on r_1 and less evident on the other radius veins dark scales as to form indistinct lines; on costa a thin line to 1/3 from base; a small dash above dorsum at 1/3. Fringe fuscous. Hindwing pale grey with brown tinge, especially distally, width 0.8 of forewing; fringe dirty beige or brown beige. Abdomen dorsally greyish beige, ventrally whitish and speckled with fuscous scales; anal tuft ivory.

Male genitalia (Fig. 15–16, regretfully with some clot contamination)**:** Uncus very large, at each side of deep, medial cleft a pair of slender, at tip widened lobes. At base of uncus a posteriorly directed membranous extension, at tip bifurcate and setose. Gnathos a large structure, laterally with lyre-shaped, symmetrical edging, distally fused by a slightly sclerotized plate with a medial peg. Tegumen wide, build up by narrow, bent sclerites. Valvae weakly sclerotized, digitate, broadly merged at base. Aedeagus rather long, slightly sinuate, tapered. Sternum 8 subtrapezoid, long, distally with pair of lateral horns, anterolaterally with long pedunculi; laterally a pair of setose flaps, e.g. as in *S. bagdadiella* Amsel, 1949, a species of which even have two pairs of lateral protrusions. Tergum 8 subtriangular, tip longly drawn out, anterior margin deeply inwardly bent. The genitalia are very similar to those of *S. nigrogrammella* Bgts. (see Bengtsson 2002b: Fig. 29–30) but valvae are more protruding, base of aedeagus is wider and uncus is longer and has bigger distal lobes, tergum 8 has a single extension while in *nigrogrammella* the tip is bifurcate.

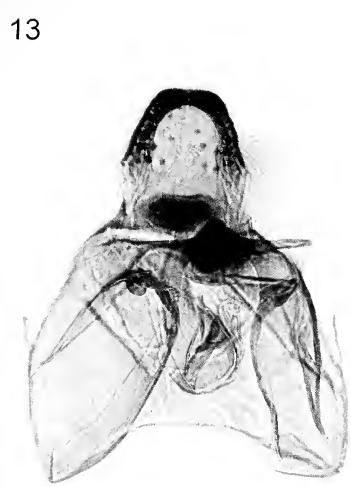
Female genitalia: Unknown.

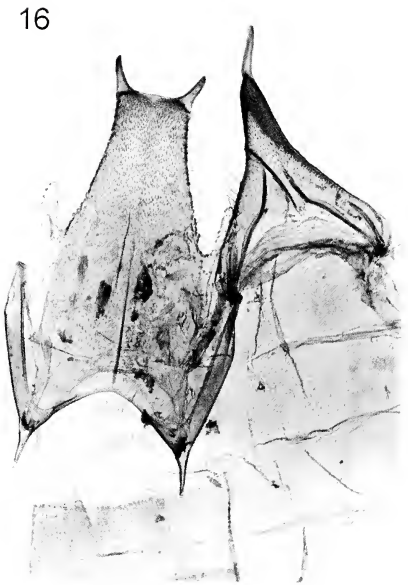
Biology: Unknown. Imago appears in November.

Distribution: Known from the type locality, Yemen (prov. Hadramaul = Hadramawt) and from Saudi Arabia (SW Arabia).

Etymology: To the naked eye the forewing looks pale ash-greyish (in Greek τέφρα 'tephra' = ash).

Note: The structure of the male genitalia indicates *S. tephrella* sp.n. to form a separate species-group together with *S. nigrogrammella* Bgts., also occurring in Yemen.





Figs. 13–16. Male genitalia of *Scythris* spp. **13**.– ***Scythris scyphella*** Bgts., Yemen, 14.XI.1996, 14.46/49.13, Al Ain, Al Mukalla, 150 m, leg. H. Hacker, in coll. ZMHB [Berlin], (Genitalia on slide BÅB 1008X); **14**.– Sternum 8 (left) and tergum 8 (right) of same specimens as in Fig. 13; **15**.– ***Scythris tephrella*** sp. n. Holotype, Yemen, 14.XI.1996, 14.46/49.18, Al Ain, Al Mukalla, 150 m, leg. H. Hacker, in coll. ZMHB [Berlin], (Genitalia on slide BÅB 1008X); **16**.– Sternum 8 (left) and tergum 8 (right) of same specimens as in Fig. 15.

Additional record from the Arabian Peninsula

Scythris (Catascythris) kebirella (Amsel, 1935)

Catascythris kebirella Amsel: *Veröff. dt. Kolon.-u.Übersee-Mus. Bremen* **1**:213.

Examined material: 4 males, UNITED ARAB EMIRATES, Ras al Khaimah, shore dunes, 6.IV.1990, leg. K. Mikkola. Genitalia of one male on slide BÅB 392X. – In coll. NHMH [Helsinki] and (one male) in coll. BÅB.

Distribution: Palaearctic Region: Iran, Israel, Saudi Arabia, United Arab Emirate (**new for this country**); Oriental Region: India; Ethiopic Region: Namibia (Bengtsson 2005).

References

Bengtsson, B. Å. 1997a: Scythridids found by H. Hacker in Pakistan 1988 and India 1992. — *Esperiana, Buchreihe zur Entomologie* **4**[1996]: 467–481.

Bengtsson, B. Å. 1997b: Scythrididae. — In: Huemer, P., Karsholt, O. & Lyneborg, L. (eds.): *Microlepidoptera of Europe* **2**: 1–301.

Bengtsson, B. Å. 1997c: Notes on interesting scythridids in the Zoological Museum, Helsinki, Finland (Lepidoptera, Scythrididae). — *Entomologica Fennica* **8**: 89–102.

Bengtsson, B. Å. 2002a. Scythridids of the Arabian Peninsula, I: Oman (Lepidoptera, Scythrididae). — *Phegea* **30**: 105–118.

Bengtsson, B. Å. 2002b. Scythridids of the Arabian Peninsula, II: Yemen (Lepidoptera, Scythrididae). — *Esperiana* **9**: 61–127.

Bengtsson, B. Å. 2005. Scythrididae. – In: Mey, W. (ed.): The Lepidoptera of the Brandberg Massif in Namibia. Part 1. — *Esperiana, Buchreihe zur Entomologie Memoir* **1**: 131–150.

Passerin d'Entrèves, 1986. Lepidoptera: Fam. Scythrididae of Saudi Arabia (Part 1). — *Fauna of Saudi Arabia* **8**: 256–261.

Passerin d'Entrèves, P. & Roggero, A., 2004. Four new species, a new synonymy and some new records of *Scythris* Hübner, [1825] (Gelechioidea: Scythrididae). — *Nota lepidopterologica* **26**(3/4): 153–164.

Truffelkevers en schimmelkevers aan de westrand van Brussel (Coleoptera: Liodidae & Scaphidiidae)

Willy Troukens

Abstract. Liodidae and Scaphidiidae at the westside of Brussels, Belgium (Coleoptera)
Since 1978 three species of Liodidae and two species of Scaphidiidae were found at the westside of Brussels: *Anisotoma humeralis* (Fabricius, 1792), *Agathidium nigripenne* (Fabricius, 1792), *A. laevigatum* Erichson, 1845, *Scaphidium quadrimaculatum* Olivier, 1790 and *Scaphisoma agaricinum* Linnaeus, 1758. All these beetles are living in association with musts and mushrooms.

Résumé. Liodidae et Scaphidiidae à la périphérie ouest de Bruxelles, Belgique (Coleoptera)
Depuis 1978 trois espèces de Liodidae et deux espèces de Scaphidiidae furent observées dans la zone occidentale de Bruxelles: *Anisotoma humeralis* (Fabricius, 1792), *Agathidium nigripenne* (Fabricius, 1792), *A. laevigatum* Erichson, 1845, *Scaphidium quadrimaculatum* Olivier, 1790 et *Scaphisoma agaricinum* Linnaeus, 1758. Tous ces coléoptères vivent aux dépens des polypores, de divers champignons et de leur mycélium, et sous les écorces envahies par les moisissures.

Key words: Belgium – faunistics – Liodidae – Scaphidiidae – Coleoptera.

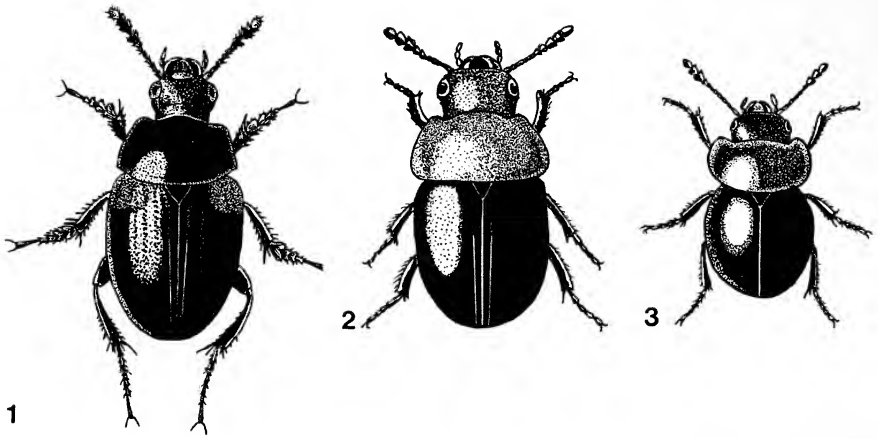
Troukens, W.: Ninoofsesteenweg 782/8, B-1070 Anderlecht.

Bij het op orde zetten van mijn kevercollectie viel het mij op dat heel wat diertjes gevangen werden op schimmels en paddestoelen. Het gaat hier om 26 soorten, behorende tot 15 families. Eén van deze families zijn de truffelkevers (Liodidae). Dit zijn lichtbruine tot lakzwarte kevertjes, 1 tot 7 mm groot, meestal sterk gewelfd en met knotsvormige sprieten. Ze zijn alle met paddestoelen geassocieerd. Sommige soorten, vooral van het geslacht *Liodes*, leven van ondergrondse zwamvlokken en zijn daarom moeilijk te vinden (Reclaire 1951: 106). Harde & Severa (1982: 112) melden voor Midden-Europa 85 soorten. In België zijn meer dan 60 Liodidae bekend. Aan de westrand van Brussel noteerde ik sinds 1978 slechts de drie volgende soorten:

1. ***Anisotoma humeralis* (Fabricius, 1792)** (fig. 1)

De truffelkevers van het geslacht *Anisotoma* worden gekenmerkt door een 5-ledige sprietknots waarvan het 2de lid sterk gereduceerd is. *A. humeralis* is één van de grotere soorten en meet 2,7 à 4 mm. Hij is overwegend zwart met roodbruine schoudervlekken. De dekschilden zijn fijn aanliggend behaard en vertonen paarsgewijs geordende puntrijen. Volgens von Peez (1971: 260) komt dit kevertje voor in Europa en Klein-Azië en is nergens zeldzaam. Men vindt hem vooral in boomzwammen, achter schimmelende schors en in oude stronken (Harde & Severa 1982: 112).

Op 27.IV.1980 ontdekte ik op de Scheutboshoogte te Sint-Jans-Molenbeek 2 exemplaren in een vermolmde wilgenstronk. Een ander exemplaar werd gevonden te Dilbeek op 18.IV.1981 in een schimmelende boomstomp. Daarna heb ik *A. humeralis* niet meer teruggezien.



Figuren 1–3. **1**.– *Anisotoma humeralis* (Fabricius, 1792), **2**.– *Agathidium nigripenne* (Fabricius, 1792), **3**.– *Agathidium laevigatum* Erichson, 1845.

2. ***Agathidium nigripenne*** **(Fabricius, 1792)** (fig. 2)

Dit kevertje is 2 à 3,5 mm lang. Kop en halsschild zijn bruinrood en de dekschilden glanzend zwart. In tegenstelling tot de vorige soort is de sprietknots 3-ledig. Het enige exemplaar in mijn collectie komt uit Dilbeek. Ik ving het op 18.IV.1981 in een vermolmde beukenstam. *A. nigripenne* is in Midden-Europa niet zeldzaam waar hij vooral leeft in beukenbossen (von Peez 1971: 265).

3. ***Agathidium laevigatum*** **Erichson, 1845** (fig. 3)

Van dit truffelkevertje vond ik op 14.II.1981 te Sint-Jans-Molenbeek 3 exemplaren onder schimmelende wilgenschors. Bij aanraking rolden de diertjes zich min of meer op tot een bolletje. Deze halfkogelige soort is 2,2 à 2,7 mm lang en is overwegend donkerbruin. Alleen de kop, de halsschildrand, de sprieten en de poten zijn bleker. Het brede halsschild valt op door de sterk afgeronde achterhoeken. *A. laevigatum* is één van de twee inlandse *Agathidium*-soorten zonder naadstreep. Hij komt voor van Europa tot Siberië en is nergens zeldzaam (von Peez 1971: 265).

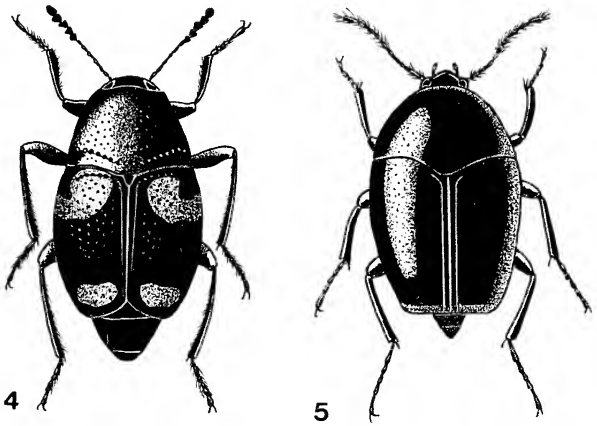
Een andere keverfamilie, wiens leven nauw verbonden is met zwammen, zijn de schimmelkevers (Scaphidiidae). Het zijn beweeglijke, ovale diertjes met een gewelfd lichaam en afgeknotte dekschilden. Meestal steekt het abdomen er onderuit. Volgens Harde & Severa (1982: 118) zijn in Midden-Europa 11 soorten inheems. Hiervan komen er 5 voor in België. Aan de westrand van Brussel ontdekte ik tot nu toe slechts de twee volgende soorten:

4. ***Scaphidium quadrimaculatum*** **Olivier, 1790** (Gevlekte schimmelkever) (fig. 4)

De gevlekte schimmelkever kan men allicht verwarren met een lieveheersbeestje. Hij is 5 à 6 mm lang. Het diertje is glanzend zwart met op

ieder dekschild twee rode vlekken. De sprieten zijn 11-ledig. Hiervan zijn de laatste 5 knotsvormig verdikt. Het zijn vlugge insecten die spartelende bewegingen maken als men ze wil grijpen (Reclaire 1951: 102).

Aan de Brusselse westrand is *S. quadrimaculatum* een gewone verschijning. Sinds 1978 vind ik hem elk jaar van april tot september, vooral onder de schors van schimmelende wilgenstronken, zowel te Anderlecht, Dilbeek als Sint-Jans-Molenbeek. De kever zou ook te vinden zijn aan boomzwammen van het geslacht *Polyporus* (Lyneborg 1977: 83). *S. quadrimaculatum* komt voor in heel Europa, Noord-Afrika en Klein-Azië en is overal vrij gewoon (Freude 1971: 345).



Figuren 4–5. **4**.– *Scaphidium quadrimaculatum* Olivier, 1790, **5**.– *Scaphisoma agaricinum* (Linnaeus, 1758).

5. ***Scaphisoma agaricinum*** **(Linnaeus, 1758)** (fig. 5)

Het geslacht *Scaphosoma* wordt in ons land vertegenwoordigd door 3 soorten waarvan *S. agaricinum* de algemeenste is. Dit glanzend zwart schimmelkevertje meet slechts 1,5 à 1,9 mm. De recht afgeknotte dekschilden zijn aan het uiteinde bruin, evenals het uiteinde van het achterlijf. De halsschildbasis loopt met een boogje naar achter en bedekt met een middenlob het schildje (scutellum). Afbeelding nr. 9 in "Thieme's kevergids" (Harde & Severa 1982: 119) kan daarom geen *S. agaricinum* zijn. De soort is verder te herkennen aan de lange, diepe naadstreep die vooraan zwak naar buiten buigt. Verder zijn de eerste 6 sprietleden, de tasters en de poten bruingeel getint.

Volgens Keer (1930: 362) is *S. agaricinum* te vinden op boomzwammen en achter schors van rottende boomstronken. Hij komt algemeen voor in Europa, Noord-Afrika en verder tot Zuid-Siberië (Freude 1971: 347). Het enige exemplaar in mijn collectie werd toevallig ontdekt onder een schimmelende boomschors te Dilbeek op 25.IV.1981.

Besluit

Hoewel een aantal Liodidae en Scaphidiidae in de literatuur vermeld staan als vrij algemeen, is het niet simpel om ze te ontdekken. De overdreven boshygiëne is hier niet vreemd aan. Voor de rechtgeaarde keverliefhebber heb ik daarom maar één boodschap: blijf onvermoeid paddestoelen en schimmelend hout prospecteren want er blijft nog heel veel te ontdekken.

Bibliografie

Freude, H. 1971. Scaphidiidae. In Freude, Harde & Löhse. *Die Käfer Mitteleuropas* (Bd. 3). — Goecke & Evers Verlag, Krefeld.

Harde, K. W. & Severa, F. 1982. *Thieme's Kevergids*. — Thieme & Cie, Zutphen.

Keer, P. M. 1930. *Calwer Keverboek* (Bd. 1). — Thieme & Cie, Zutphen.

Lyneborg, L. 1977. *Kevers in kleur*. — Moussault's Uitgeverij, Baarn.

Reclaire, A. 1951. *Kevers*. — Het Spectrum, Utrecht.

von Peez, A. 1971. Liodidae. In Freude, Harde & Löhse. *Die Käfer Mitteleuropas* (Bd. 3). — Goecke & Evers Verlag, Krefeld.

Butterflies on the Greek island of Pátmos in the first half of July 2004 (Lepidoptera: Hesperioidea & Papilionoidea)

John G. Coutsis

Samenvatting. Dagvlinders van het Griekse eiland Pátmos in de eerste helft van juli 2004 (Lepidoptera: Hesperioidea & Papilionoidea)
Tijdens een bezoek aan het eiland Pátmos werden daar vier soorten dagvlinders waargenomen die nog niet eerder van het eiland bekend waren. Dit brengt het totale aantal soorten voor Pátmos op 19.

Résumé. Les papillons de l'île grecque de Pátmos pendant la première moitié de juillet 2004 (Lepidoptera: Hesperioidea & Papilionoidea)
Pendant une visite de l'île de Pátmos, 4 espèces de papillons furent observées qui n'avaient pas été observées sur cette île auparavant. Cette observation porte le nombre d'espèces sur l'île de Pátmos à 19.

Key words: Greece – Pátmos – faunistics.

Coutsis, J. G.: 4 Glykonos Street, GR-10675 Athens, Greece, kouts@otenet.gr.

Introduction

The Greek island of Pátmos is situated in the SE Aegean Sea and it has an area of about 32 km² and GPS coordinates at its centre of N 37° 19′ and E 026° 32′. Details on the island's geography, topography and flora are given by Olivier (1997).

By the first half of July the island presents a parched sight, with most flowers and grasses in total desiccation. Butterflies were to be met with sparsely and almost exclusively in wind-protected gullies and in seaside orchards and gardens that are supported by mechanical irrigation.

Flower-feeding butterflies were mostly recorded either on *Heliotropium* species, or on *Vitex agnus-castus* Linnaeus, just about the only wild flowers around; some were also recorded sipping moisture on mud puddles formed by leaking water pipes. The Satyrinae in particular were recorded by being flushed from bushes and rocks that were in the shade. All in all fifteen species were recorded, four of which are new to the island, while the rest had previously also been recorded by Olivier (1997).

Checklist

The places visited were Hóra, ca. 220 m; Livádi, sea level; Ágrio Livádi, 50m; Léfkes, sea level; Kípi, 0–120 m; Diakófti, ca. 50m. The following species were recorded between July 8 and July 11:

Gegenes pumilio (Hoffmansegg, 1804). Léfkes; Kípi. Both on *Heliotropium* and *Vitex agnus-castus*. Identification confirmed by male genitalia.

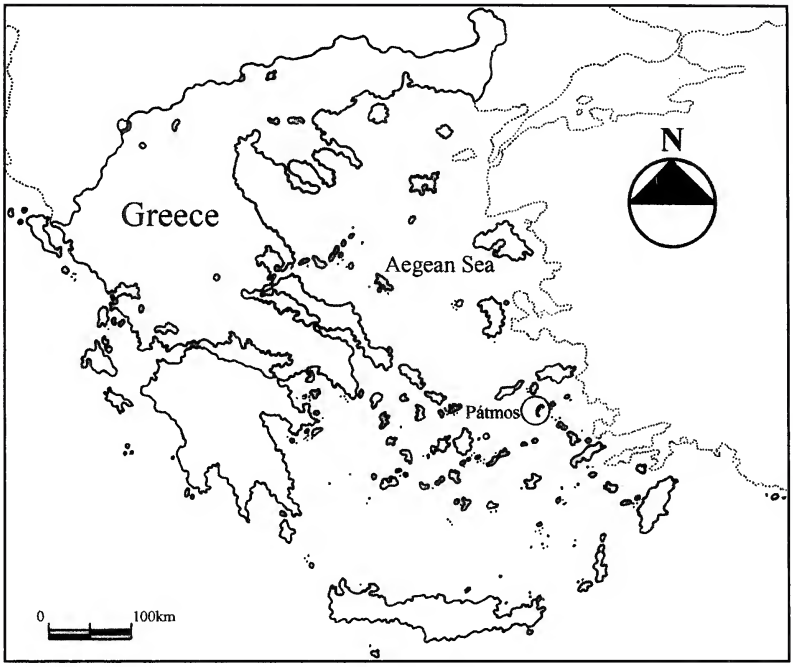


Figure 1: Map of Greece with the position of the island of Pátmos in the southern Aegean Sea.

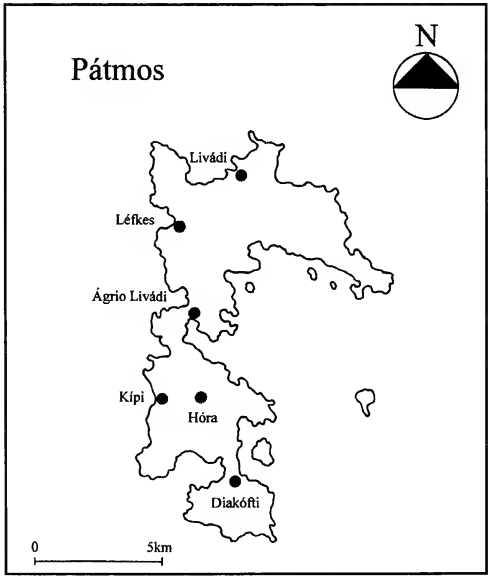


Figure 2: Map of the island of Pátmos, indicating the sampling localities.

Carcharodus alceae (Esper, 1780). Ágrio Livádi; Kípi. On dry grasses and on *Vitex agnus-castus.*

Iphiclides podalirius (Linnaeus, 1758). Léfkes; Hóra; Kípi. Mostly in the vicinity of orchard trees and on *Vitex agnus-castus*.

Papilio machaon (Linnaeus, 1758). Livádi; Kípi.

Pieris brassicae (Linnaeus, 1758). Hóra; Kípi. In the latter location on *Vitex agnus-castus.*

Pieris rapae (Linnaeus, 1758). Kípi; Léfkes.

Pontia edusa (Fabricius, 1777). Kípi. **New to Pátmos.**

Lycaena phlaeas (Linnaeus, 1761). Kípi. In small numbers on *Heliotropium.*

Lycaena thersamon (Esper, [1784]). Kípi. Very few on *Heliotropium.*

Syntarucus pirithous (Linnaeus, 1767). Léfkes. Two on the leaves of a lemon tree. **New to Pátmos.**

Polyommatus icarus (Rottemburg, 1775). Léfkes; Kípi. On mud puddles.

Lasiommata maera (Linnaeus, 1758). Kípi. A single male flushed from bushes. **New to Pátmos.**

Maniola telmessia (Zellar, 1847). Léfkes; Kípi. A few females flushed from bushes and a single male on a water puddle. Confirmed by Male genitalia.

Vanessa cardui (Linnaeus, 1758). A single specimen at Diakófti.

Polygonia egea (Cramer, [1775]). Hóra. On building walls. **New to Pátmos.**

Discussion

To the fifteen species presented here, one should also add another four butterflies (i.e. *Zerynthia cerisy* (Godart, 1824), *Colias crocea* (Fourcroy, 1785), *Polyommatus loewii* (Zeller, 1847) and *Vanessa atalanta* (Linnaeus, 1758)), all of which were listed by Olivier (1997), but missed by the present author. This brings the sum-total of butterfly species known from Pátmos to a modest nineteen. This paucity in butterflies seems to be the characteristic of all Aegean islands that have a small landmass, a pronounced geographic isolation, a lack of water sources, a poor and non-diversified flora and an exposure to very frequent strong northern winds, known as "meltémia".

References

Olivier, A. 1987. Catalogue of the butterflies of the Greek islands in the collection of the Instituut voor Taxonomische Zoölogie (Zoölogisch Museum) Amsterdam (Lepidoptera: Hesperioidea & Papilionoidea). — *Phegea* **15**: 77–88, 165–170.

Olivier, A. 1990. Butterfly records from the Greek island of Pátmos (Lepidoptera: Papilionoidea). — *Phegea* **18**: 31–32.

Olivier, A. 1997. Butterflies on the island of Pátmos (Greece) in April, 1995, with an updated checklist and biogeographic notes (Lepidoptera: Hesperioidea & Papilionoidea). — *Entomologists' Record and Journal of Variation* **109**: 295–298.

On the presence of *Proterebia afra* (Lepidoptera: Nymphalidae, Satyrinae) on the island of Pag, Croatia

Valerija Zakšek

Samenvatting. Over het voorkomen *Proterebia afra* (Lepidoptera: Nymphalidae, Satyrinae) op het eiland Pag, Kroatië.
Op 27–28 april 2004 werd *Proterebia afra* (Fabricius, 1787) talrijk waargenomen in het noordwesten van het eiland Pag (Kroatië). Hierdoor wordt de verspreidingsgrens van deze soort verder naar het noordwesten opgeschoven.

Résumé. Sur la présence de *Proterebia afra* (Lepidoptera: Nymphalidae, Satyrinae) sur l'île de Pag, Croatie.
Les 27 et 28 avril 2004, de nombreux exemplaires de *Proterebia afra* (Fabricius, 1787) furent trouvés dans la partie nord-ouest de l'île de Pag (Croatie). Cette observation élargit l'aire de répartition de cette espèce vers le nord-ouest.

Key words: *Proterebia afra* – Croatia – faunistics – new record.

Zakšek, V.: University of Ljubljana, Dept. of Biology, Biotechnical Faculty, Večna pot 111, SI-1000 Ljubljana, Slovenia, valerija_zaksek@hotmail.com.

In the eighties the poor knowledge about the distribution of *Proterebia afra* showed great areal disjunction: the presence of this species was known from a restricted area in Dalmatia and from S Russia, central Asia and Iran (Higgins & Hargreaves 1983). In the past decades the species was additionally found in northern Greece (De Louker & Dils 1987) and Turkey (Hesselbarth *et al.* 1995).

The exact distribution of *P. afra* in Croatia is still unknown; its presence was mentioned for Zadar and Šibenik (Stauder 1919), the Knin area (Hafner 1994), and the island of Korčula (Jakšić 1993). Such distribution is summarized also in two atlases (Jakšić 1988, Kudrna 2002) whereby the presence on Korčula is debatable and not taken into consideration in the Kudrna distribution atlas of European butterflies (2002). The distribution map in the Croatian National Red List of Butterflies and Moths (www.cro-nen.hr) shows the potential distribution of *Proterebia afra* from Zadar (NE) to Dubrovnik (SW).

The species occurs in dry, grassy sparsely bushy slopes, often gentle and undulating, strewn with small rocks. The larval food plant is *Festuca ovina*. The altitude span ranges from 150 to 500 m on Korčula and from 500 to 1100 m in northern Greece (Tolman & Lewington 1997).

In the year 2004, on 27. and 28. of April the species was observed at localities near the ornithological reserve Kolansko blato, between Gajac and the village Kolan on the north-eastern part of the island of Pag, Croatia (44° 31' 30"N 14° 55'E). The island of Pag is not recognized as a potential area of the species distribution (www.cro-nen.hr), therefore this discovery was highly unexpected and has pushed the limits of the known distribution further northwest.

Figure 1: Habitat of *Proterebia afra* on the island of Pag, Croatia (Photo: V. Zakšek).

List of sites where *Proterebia afra* was observed during 2004:

27.4., ca. 10 adult males, pastures on plains NW of village Kolan,
28.4., more than 20 adults were observed, also several females, sheep grazed pastures S from Gajac, between coast and lake,
28.4., more than 20 males were observed, one female, sheep grazed pastures S from bay Rogoza,
28.4., ca. 10 adults were observed, open grasslands E from Gajac,
28.4., more than 20 males were observed and several females, sheep grazed pastures W from main road Novalja-Pag.

The habitat was similar in all sites; dry, sparsely bushy and rocky grasslands characterised by scattered *Juniperus* sp. bushes as the dominant shrub and tufts of *Festuca* sp. All sites were in the coastal area at low altitudes (10–20 m). The presence at such low altitudes, compared with currently known vertical distribution, can possibly be explained by the northern limit of the species distribution.

The endangerment category of *Proterebia afra* in Croatia is unknown (DD-data deficient). In order to fill the distribution gap between the northern part of the island of Pag and the known sites south of Zadar further investigation of habitat preferences and distribution is necessary. Together with the data

contained in the present paper these finds will improve our knowledge of the endangerment status of the species in Croatia.

Literature

De Louker, S. & Dils J. 1987. The occurrence of *Proterebia phegea* Borkhausen in Greece with description of a new subspecies (Lepidoptera: Nymphalidae: Satyrinae). — *Phegea* **15**(3): 157–160.

Hafner, I. 1994. Verzeichnis der bei Knin gesammelten Schmetterlinge (Lepidoptera). — *Natura Croatica* **3**(2): 119–184.

Hesselbarth, G., van Oorschot, H. & Wagener, S. 1995. *Die Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder.* — Selbstverlag Sigbert Wagener Bocholt. Vols. 1–3, 1354 pp.

Higgins, L. & Hargreaves, B. 1983. *The Butterflies of Britain and Europe.* — Harper Collins Publishers, London, 256 pp.

Jakšić, P. 1988. Privremene karte rasprostranjenosti dnevnih leptira Jugoslavije (Lepidoptera, Rhopalocera). Provisional distribution maps of the butterflies of Yugoslavia. Jugosl.entomol. društvo, Posebna izd. — *Editiones separatae*, Zagreb, 215 pp.

Jakšić, P. 1993. The M. Rogulja collection of Rhopalocera (Lepidoptera) from the former state of Yugoslavia. — *Entomologist's Gazette* **44**(2): 85–99.

Kudrna, O. 2002. The Distribution Atlas of European Butterflies. — *Oedippus* **20**: 1–342.

Stauder, H. 1919–1933. *Die Schmetterlingsfauna der illyro-adriatischen Festland und Inselzone* (Faunula Illyro Adriatica). — Berlin und Wien.

Tolman, T. & Lewington, R. 1997. *Butterflies of Britain and Europe. Collins field guide.* — Harper Collins Publishers, London, 320 pp., 104 pl.

http://www.cro-nen.hr/crvena_lista.php (last accessed 10.10.2004)

Inhoud:

---

verantw. uitg.: W. De Prins, Dorpstraat 401B, B-3061 Leefdaal (Belgium) - Tel: +32-3-322.02.35

SMITHSONIAN INSTITUTION LIBRARIES

3 9088 01176 3943