Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 29, Heft 17: 221-232 ISSN 0250-4413 Ansfelden, 30. April 2008

Discovery of lost type specimens of WASMANN 1904
(Coleoptera, Tenebrionidae)

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Abstract

Five types of termitophilous species of darkling beetles described by WASMANN 1904, hitherto presumed lost, have been found in the alcohol collection of arthropods, preserved in the Swedish Museum of Natural History, Stockholm. They were originally found by the Swedish entomologist Ivar TRÄGÅRDH, during an expedition to Sudan in 1901. They are: *Mimocellus trechoides, Hoplonyx termitophilus, Paragonocnemis traegaordhi, Gonocnemis jaegerskioeldi* and *Endustomus sudanensis*. The synonymy and systematic position of these genera and species are discussed. *Mimocellus trechoides* is a valid species. *Gonocnemis jaegerskioeldi* is specifically different from *Gonocnemis strigipennis* THOMSON, 1858 and is not a junior synonym as implied by ARDOIN (1964). *Hoplocnyx termitophilus* is a junior synonym of *Gonocnemis nodieri* FAIRMAIRE, 1893. *Paragonocnemis traegaordhi* belongs to the subgenus *Microgonocnemis* PIC, 1936 sensu ARDOIN (1964) and is a valid species. *Endustomus sudanensis* WASMANN, 1904 is found to be a junior synonym of *Endustomus plicicollis* FAIRMAIRE, 1884 as indicated by SCUPOLA (2006).

Zusammenfassung

Verschollen geglaubte Typen von fünf von WASMANN 1904 beschriebenen Schwarzkäferarten (Tenebrionidae) wurden in der Alkoholsammung des Naturhistorischen Museums Stockholm gefunden. Der Fund ermöglicht eine Revision der Arten.

Introduction

The Swedish entomologist Ivar TRÄGÅRDH, participating in an expedition to Egypt and the White Nile Dec. 1900 - March 1901 (JÄGERSKIÖLD 1904), collected termites and other insects in Sudan. The insects in vials of ethanol were sent to diverse specialists for identification and description. The tenebrionid Coleoptera found together with termites, were previously sent to the Italian entomologist Rafaello GESTRO (1845-1936), a specialist of Rhyssopaussidae. However, for unknown reason this author, working in the Museo Civico di Storia Naturale de Genova, never described the material, but sent it instead to E. WASMANN.

Unfortunately, the material became known as originating from the Genova Museum. Wasmann himself was informed by the Preface of the series of JÄGERSKIÖLD (1904) "Results of the Swedish Zoological Expedition to Egypt and the White Nile 1901" about the depository of all type material in the Swedish Museum of Natural Histoy in Stockholm (SMNH). In his paper, which is included in this series, he did not repeat the depository. This lack of information and the circumstance that the types were not labeled and therefore not pointed out as types, and that the material was preserved in alcohol, while the revisors were looking for pinned material, brought about the loss of the types after extensive research in Italian and German Museums by recent authors (ARDOIN 1964, 1969; SCHAWALLER 2005; SCUPOLA 2006).

The material studied in this paper was collected by TRÄGÅRDH at the southernmost station of the expedition, at Ghrab el Aish in the South of Kaka, only a few miles north of Fashoda (TRÄGÅRDH 1904, WASMANN 1904). The rough labelling expresses only Kaka as collecting locality.

ARDOIN (1964) treated the types described by WASMANN 1904 as lost (FERRER 2006; SCUPOLA 2006). In this Revision of the African Amarygmini, *Gononocnemis jaegerskioeldi* and *Hoplonyx termitophilus* are regarded as species incertae sedis. The genus *Mimocellus* WASMANN, 1904 has been placed in the tribu Lupropini by ARDOIN (1969), confirming the original diagnosis, a systematic position confirmed by SCHAWALLER (2005) and followed by the author. The depositary of the types of *Mimocellus trechoides* WASMANN, 1904 is regarded as unknown in this review of the genus. Obviously, all authors failed to look at the Preface of JÄGERSKÖLD (1904). *Endustomus sudanensis* WASMANN, 1904 is regarded as a synonym of *Endustomus plicicollis* FAIRMAIRE, 1884 by SCUPOLA (2006), purely on the basis of the photograph in WASMANN´s original description.

Tribu Lupropini

Mimocellus trechoides WASMANN, 1904
(photographs 1-2)

Examined material: Two syntype specimens, labelled "*Mimocellus trechoides* WASM. n. sp. / Sudan, Kaka, 6.03.01 / colleg. TRÄGÅRDH / det. E. WASMANN" (SMNH).

The types were found in a vial of alcohol in the collection of Arthropods, not in the general (dry) collection of Coleoptera, preserved in the Swedish Museum of Natural History, Stockholm (Naturhistoriska riksmuseet). Both specimens are teneral but agree with the original description. However, the vial is not marked as type material among all the other data (written with indelible ink). For this reason they were not officially registered as types

in the Accesions book and database of the Swedish Museum of Natural History.

There is no doubt that these specimens are really the types of *Mimocellus trechoides*: Firstly, the label corresponds with the provenance of the material studied by WASMANN, consisting with the results of the expedition arranged by the Swedish professor L.A. JÄGERSKIÖLD, who edited the paper in which this genus and the type species is described for the first time. Secondly, the specimens are placed together in a vial, which is placed together with vials preserving only the other WASMANN types discussed in this paper. Finally, the insect figured in the photograph given by WASMANN corresponds exactly with the most mature specimen.

This species has been noted as represented in the collection of Naturhistoriska riksmuseet by a previous curator and marked with a black point in the Accesions book (= first Catalogue of GEBIEN 1910) of the general collection of Coleoptera, Tenebrionidae. But the type indication was omitted.

SCHAWALLER (2005), revising the African genus *Mimocellus*, treated the depostitory of the type of *Mimocellus trechoides* as unknown. This matter is now resolved.

Additional material: We have examined some additional specimens collected by John CORNELL in Irina, Tanzania, and previously the author has cited this species from Kenya, Voi L. BARTOLOZZI leg. (FERRER 1996) and a female *Mimocellus* sp. from Namibia (FERRER 2004). The specimen treated as lost by SCHAWALLER (2005) has been communicated to Dr. Claude GIRARD, a specialist of termitophilous Tenebrionids.

Tribu Cossyphini

***Endustomus sudanensis* WASMANN, 1904 syn. nov.**
(photographs 3-5)

= *Endustomus plicicollis* FAIRMAIRE, 1884

Examined material: Two syntypes, labelled "*Endustomus sudanensis* WASM. n. sp. / Sudan, Kaka, 6.03.01 / colleg. TRÄGÅRDH / det. E. WASMANN" (handwritten white label, indelible ink) (SMNH).

SCUPOLA (2006) established iconographically the possible synonymy of this species with *Endustomus plicicollis* FAIRMAIRE, 1884, based on the photographic evidence given by WASMANN. We confirm this synonymy as correct. The examined types are a male, (aedeagus extracted) and a female, with first and third costae longer than the second costa, which appears prominent and clearly reduced. The pronota have a medial, microtuberculate carina, the elytra have very conspicuous costae, and the anal sternite is unmargined. Both types correspond (habitus, aedeagus and eight sternite) with the figure and description of SCUPOLA (2006) representing *Endustomus plicicollis*. This is a widely distributed East African species ranging from Sudan to Somalia and Tanzania.

Tribu Amarygmini

***Gonocnemis jaegerskioeldi* WASMANN, 1904, bona species**
(photographs 9-10)

Examined material: Holotype, labelled "*Gonocnemis jaegerskioeldi* WASM. n. sp. / Sudan, Kaka, 6.03.01 / colleg. TRÄGÅRDH / det. E. WASMANN" (handwritten white label,

ink of china) (SMNH).

ARDOIN (1964) included this species in the revision of the African Amarigmini placing it to the genus *Gonocnemis* THOMSON, 1858, but considered it as incertae sedis. This species was strongly suspected to be identical with *Gonocnemis strigipennis* THOMSON, 1858, but it is a different species. The type specimen is inmature, and a definitive diagnosis is difficcult. We prefer treat it as a valid species until fresh material from Sudan becomes available.

Hoplonyx termitophilus WASMANN, 1904 syn. nov.
(photograph 8)

= *Gonocnemis nodieri* FAIRMAIRE, 1893

Examined material: Holotype, labelled "*Hoplonyx termitophilus* WASM. n. sp. / Sudan, Kaka, 6.03.01 / colleg. TRÄGÅRDH / det. E. WASMANN" (handwritten white label, indelible ink) (SMNH).

ARDOIN (1964) indicated and we agree that *Hoplonyx termitophils* is most similar to *Gonocnemis nodieri* FAIRMAIRE, 1893, and we propose the synonymy with this species.

The type of *Gonocnemis nodieri* was not found by Paul ARDOIN in the Muséum national d´Histoire naturelle, Paris. However, the great specialist who studied this genus over 20 years, in finishing a revision was absolutely certain that the species described by FAIRMAIRE is conspecific with *Hoplonyx termitophilus* described and photographed by WASMANN (1904). We think this opinion is reasonable for several reasons: Firstly, because *Gonocnemis nodieri* is common and widely distributed, and for this reason a somewhat variable species which has been described under different names (*aethiopicus* FAIRMAIRE, 1897, *crassicornis* FAIRMAIRE, 1898 and *incrassicornis* PIC, 1937). Further, the geographical area of *Gonocnemis nodieri* includes several West African countries: The type is decribed from Kayes in Mali, and occuring in Senegal, Togo, Benin and Niger it penetrates to Camerun, Sudan, Ethiopia and Kenya. After intensive examinations of respective material collected and determined by old French entomologists and comparaison with *Gonocnemis nodieri*, ARDOIN (1964) established the identity and the probable synonymy of both taxa.

Additional material: We have received this species from Eric GIROUX, collected in Benin, Agolin, Honegho, Zagnanado, 1.X.1999 (coll. Julio FERRER).

Paragonocnemis traegaordhi WASMANN, 1904
(figs 11-13, photographs 6-7)

= *Paragonocnemis* (*Microgonocnemis*) *traegaordhi* WASMANN, 1904 **comb. nov.**

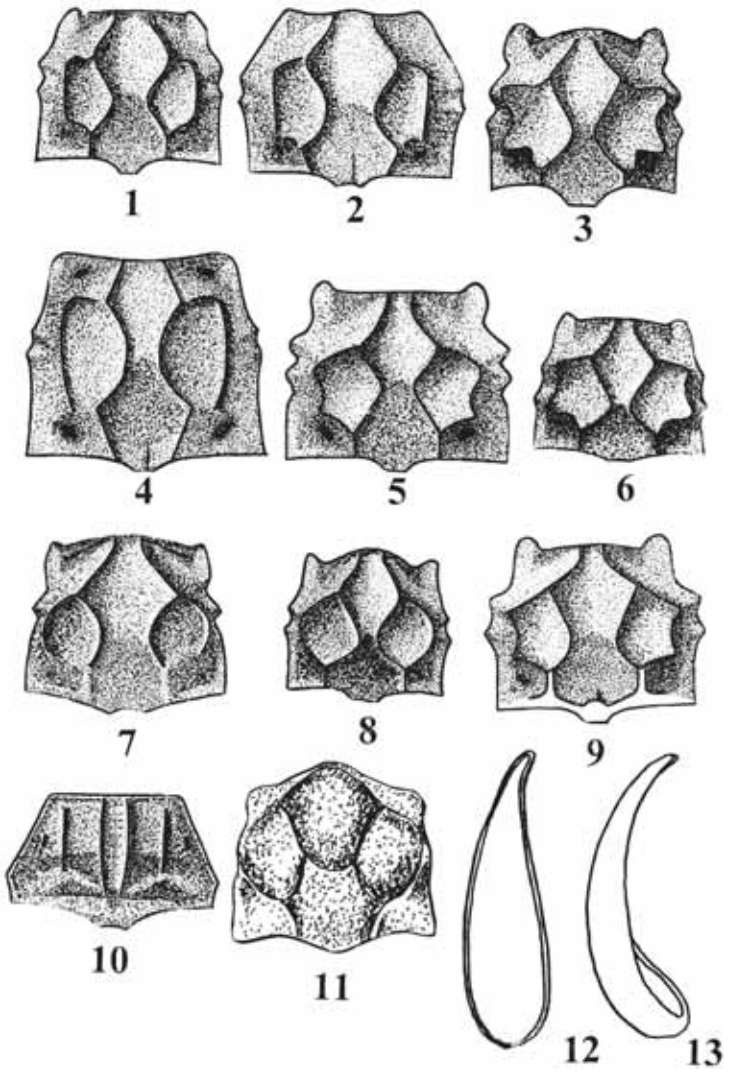
Examined material: Holotype, labelled "*Paragonocnemis traegaordhi* WASM. n. sp. / Sudan, Kaka, 6.03.01 / colleg. TRÄGÅRDH / det. E. WASMANN" (handwritten white label, indelible ink) (SMNH).

This species is characterised by the great frontal separation of the insertion of the first antennal joint, which is shorter than the distance between the eyes measured frontally (subgen. *Microgonocnemis* PIC, 1936 sensu ARDOIN (1966). Using the key given by ARDOIN (1966) this species may be placed after *carinatus* PIC, 1936 (Belgian Congo, without precise locality), but *traegaordhi* is clearly different in its pronotal and elytral sculpture: The sides of the pronotum are more sinuous laterally, the central fossula is broadly oblong

and conspicuously dilated at middle, not narrowly elongate, and the sides are subsinuate, not abruptly convergent forwards. The elytral carina of the alternate rows is entirely traceable from base to apex. This species is treated by ARDOIN (1966) as a species incertae sedis. The peculiar sculpture of pronotum is hardly visible in the original photograph of WASMANN (1904), due to the presence of attached Acari which belong to the genus *Uropoda* according to this author. However, there is no doubt about the validity of *Paragonocnemis traegaordhi* WASMANN, 1904. The vial contains two specimens, a male and a female, with the acari removed. We illustrate the aedeagus of this species (figs 12-13) for the first time and the pronotum including figures of the pronota of all related species to clearly separate this species from all other described *Paragonocnemis* (figs 1-11).

Acknowledgements

We thank professor Fredrik RONQUIST, Dr Kjell Arne JOHANSON, Bert GUSTAFSSON, Bert VIKLUND and Niklas JÖNSSON of the Swedish Museum of Natural History, Stockholm, and Mr. Paul F. WHITEHEAD, Worcestershire, England, for important comments to the manuscript.



Figs 1-13 Pronotum of *Paragonocnemis* species: 1 *Paragonocnemis* (s.str.) *pici* ARDOIN, 1964; 2 *confusus* ARDOIN, 1964; 3 *curtus* PIC, 1936; 4 *diversisculptus* PIC, 1936; 5 *foveicollis* FAIRMAIRE, 1891; 6 *wasmanni* ARDOIN, 1964; 7 *P* (*Lycogonocnemis*) *rufus* PIC, 1936; 8 *humerosus* ARDOIN, 1964; 9 *seydeli* ARDOIN, 1964; 10 *P*. (*Microgonocnemis*) *carinatus* PIC, 1936; 11 *traegaordhi* WASMANN, 1904. 12-13: Aedeagus of *P*. (*M*.) *traegaordhi*, 12 in ventral view; 13 in lateral view.

Phot. 1-2: *Mimocellus trechoides* WASM.

Phot. 3-4: *Endustomus sudanensis* WASM.

Phot. 5: *Endustomus sudanensis* WASM.

Phot. 8: *Gonocnemis termitophilus* WSM.

Phot. 6-7: *Paragonocnemis* (*Microgonocnemis*) *traegaordhi* WASM.

Phot. 9-10: *Gonocnemis jaegerskiöldi* WASM.

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Literaturbesprechung

MARZLUFF, J.M. et al. (eds) 2008: Urban Ecology. An International Perspective on the Interaction between Humans and Nature. - Springer Science+Business Media, New York. 807 S.

Urban Ecology ist eine Sammlung älterer und neuerer Literatur zum Thema "Stadtökologie" oder "Ökologie vom Menschen bewohnter Landschaften". Es ist stark interdisziplinär ausgerichtet, wird aber doch wesentlich von Geographen, Landschaftsarchitekten, Anthropologen und geobotaniker geprägt. Zoologische Aspekte finden fast ausschließlich über Vögel und mit je einem Artikel über Fledermäuse und Spinnen Einzug in den Kontext. Die Bedeutung von Städten für die Biodiversität, ihre Erhaltung und Förderung wird nur angeschnitten. Auch die Zunahme und Bedeutung von Neozoen wird allenfalls gestreift.

Trotzdem bietet dieses Buch einen sehr guten Einstieg und Überblick in die Thematik "Stadtökologie", gegliedert in die Sektionen "Urbanisation and Human Domination of Earth", "Conceptual Foundations of Urban Ecology", "The Atmosphere, Hydrosphere, and Pedosphere", "The Biosphere", "The Anthroposphere: Human Dimensions" und "The Anthroposphere: Planning and Policy". Erfreulich ist die geographische Breite die hier Berücksichtigung findet: die Pionierarbeiten aus Deutschland, interessante Beispiele aus USA, Polen und Italien, aber auch Probleme und Konzeptionen bezüglich asiatischer Megacities.

Wer sich mit der Ökologie urban geprägter Landschaften auseinander setzen will, wird um dieses Buch nicht herumkommen. R. GERSTMEIER

NEW, T.R. (ed.) 2007: Beetle Conservation. - Springer, Dordrecht. 94 S.

Diese Buchausgabe ist ein Nachdruck vom Journal of Insect Conservation 11(1), 2007 und beinhaltet neben der ausführlichen Einleitung des Herausgebers folgende 8 Originalarbeiten (in abgekürzter Form zitiert): The effects of forestry on carabid beetles in boreal forests, Conservation status of *Prodontria* species in New Zealand, Carabid beetle conservation in New Zealand, Notes on the habitat and adult behaviour of *Colophon*, A model of the past using tiger beetles, Novel interactions of native *Mecyclothorax*, alien *Trechus obtusus*, and Argentine ant, Water beetles associated with reservoirs on Table Mountain, Cape Town, and The decline of native coccinellids in the United States and Canada.

Obwohl viele Käfer (nicht nur für Sammler) ausgesprochen attraktiv und zum Teil auch selten sind, treten sie im Gegensatz zu Schmetterlingen nur begrenzt oder gar nicht in den einschlägigen internationalen Listen (IUCN, CITES) auf. Mit ein Grund dafür ist sicherlich, dass wir einfach immer noch viel zu wenig über die Biologie, Faunistik und Häufigkeit, vor allem tropischer, Käfer wissen. In diesem Sinne ist es auch wenig sinnvoll, bestimmte Arten allein aufgrund ihrer Schönheit oder Seltenheit unter Artenschutz zu stellen, wenn man fast nichts über ihre Biologie und ihre Bedeutung für das jeweilige Ökosystem weiß. Der ökosystemare Ansatz findet immer noch zu wenig Beachtung im internationalen Naturschutz.

In diesem Band fehlen gerade die xylobionten Käfer völlig, obwohl sie eine entscheidende Schlüsselrolle in allen Waldökosystemen spielen. Selbst für die mitteleuropäischen

Flaggschiffarten (u.a. Hirschkäfer, Alpenbock, Eremit) ist längst noch nicht alles erforscht. Man kann nur hoffen, dass noch viel mehr solcher Arbeiten die Bedeutung von Insekten im Naturschutz zeigen. R. GERSTMEIER

ARNDT, I., JANTSCHKE, F. 2007: Affen in der Wildnis. - Frederking & Thaler Verlag, München. 224 S.

Ingo ARNDT fotografiert etwa seit dem Winter 1994/95 Affen in freier Natur. Dies sind keine Schnappschüsse, sondern komponierte Aufnahmen in der natürlichen Umgebung, z.T. resultierend aus wochenlangen Aufenthalten zusammen mit den Tieren. So waren allein drei Reisen notwendig, um endlich Berggorillas so zu fotografieren, wie es sich der Fotograf vorgestellt hatte. Die Schwerpunkte in diesem Bildband bilden Berggorillas, Dscheladas, Schimpansen, Orang Utans, Japanmakaken, Hanumanlanguren, Klammeraffen und Rote Uakaris. Ein paar weitere Arten (u.a. Katta, Mandrill, Berberaffe) werden am Schluss nur kurz gestreift.

Die textliche Information ist knapp, übersichtlich und beinhaltet wesentliche Details zur Lebensweise der Affen. Wie es sich für einen Bildband gehört, sind es natürlich die Farbaufnahmen, die beeindrucken. Hier seien nur beispielhaft folgende Bilder erwähnt: Dschelada-Paarung, Dschelada-Kindergarten, Dschelada-Männchen auf Felsvorsprung, Japanmakaken in heißer Quelle (mehrere fantastische Aufnahmen), Hanumanlanguren, Roter Uakari auf abgestorbenem Baum und die groomenden Berberaffen.

Ein sowohl optischer wie preiswerter Genuss für alle Tierfreunde. R. GERSTMEIER

Druck, Eigentümer, Herausgeber, Verleger und für den Inhalt verantwortlich:
Maximilian SCHWARZ, Konsulent f. Wissenschaft der Oberösterreichischen Landesregierung, Eibenweg 6, A-4052 Ansfelden, E-Mail: maximilian.schwarz@liwest.at.

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