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# Classification, natural history, and evolution of the Korynetinae (Coleoptera: Cleridae). Part IV. The new genus *Nolafigura* Opitz, and fourteen new species of *Korynetes* Herbst

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- ZooBank : <http://zoobank.org/D67F4DA0-C173-4ED8-BCD7-94E5A3A1FF87>

## Keywords:

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*Nolafigura* ;  
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Taxonomy ;  
new genus ;  
new species ;  
Senegal ;  
Benin ;  
Congo ;  
Tanzania ;  
Zambia ;  
South Africa ;  
Namibia.

**Abstract.** – This work involves establishment of the genus *Nolafigura* Opitz, new genus, description of its type species *N. cochei* Opitz, new species, and description of fourteen new species in the established genus *Korynetes* Herbst. The *Korynetes* new species involve: *K. apiculus* Opitz, *K. bifidus* Opitz, *K. clavulus* Opitz, *K. divulgatus* Opitz, *K. fuscopedis* Opitz, *K. kruger* Opitz, *K. ligulus* Opitz, *K. luminosus* Opitz, *K. morulus* Opitz, *K. pelidnus* Opitz, *K. peliosus* Opitz, *K. procerus* Opitz, *K. serratus* Opitz, and *K. ustulatus* Opitz. Also, a lectotype designation and redescription is provided for *K. nigratarsis* Pic. Included in this work are 12 Electron Micrographs, 16 habitus photographs, 13 photographs of genitalia, and 3 distributional maps. To facilitate the identification of the new taxa described herein, the new names are associated with previously described genera and species.

Opitz W., 2018. – Classification, natural history, and evolution of the Korynetinae (Coleoptera: Cleridae). Part IV. The new genus *Nolafigura* Opitz, and fourteen new species of *Korynetes* Herbst. *Faunitaxys*, 6(12) : 1 – 17.

ZooBank : <http://zoobank.org/1B822574-10FD-41FD-8B6F-C10E7670752E>

## Introduction

A taxon rich shipment of African checkered beetles from Alain Coache (ACCF), Roland Gerstmeier (RGCG), and Ruth Müller (TMSA) provided the opportunity to increase our knowledge about the Cleridae fauna of Africa. In a previous publication (Opitz, 2017: 421), I alluded to the general paucity of information about the Cleridae of Africa. Now, I am delighted to make this contribution to enhance our knowledge of the African fauna of Korynetinae (*sensu stricto*, Opitz, 2010: 86). The genus *Korynetes* was established by Herbst (Herbst, 1792: 148) and revised by Opitz (Opitz, 2015: 107).

## Materials and Methods

While morphological criteria are used to determine species status, I adhere to the biological species concepts as discussed by Standfuss (1896), Dobzhansky (1937), and Mayr (1963). The operational criteria for the delimitation of species involve morphologic structure and any other available criteria that suggest reproductive isolation among members of metapopulation lineages (de Queiroz, 2007). Experience with morphological structure is generally a reasonable criterion with which to hypothesize reproductive isolation. In this study, consideration for species status involves: Integumental color, structure of the pronotum, arrangement of elytral punctures, and characteristics of the aedeagus.

Methods involving dissections, measurements, and morphological terminology follow those described in Opitz (2010: 35). Brown (1956) was used to coin scientific names.

Abbreviations used in this treatise are defined as follows:

– **EW/FW** = eye width/frons width (measured at 500 x from the front of the head);

– **PW/PL** = pronotal width (across the widest portion of the pronotal disc)/pronotal length (from midline anterior margin to midline posterior margin);

– **EL/EW** = elytral length (from humeral angle to apex)/elytral width (greatest dorsal width of one elytron).

Habitus photographs were taken with a Leica Z 16 APO microscope equipped with JVC KY-F75U-CCD camera and controlled by Syncrosopy Auto Montage software (Cambridge, United Kingdom). The SEM micrographs were produced with a Scanning Electron Microscope-S-3500N (Hitachi Science Systems, Ltd., Tokyo, Japan). Image stacks, involving the aedeagus, were taken with a Leica® DM2500 compound scope with a 10X objective lens and a Leica® DFC425 camera (Meyer Instruments, Houston, Texas, United States of America), and combined using Zerene Stacker®.

## Repository of Specimens

I used codens as noted in Arnett, Jr. et al. (1993) to indicate repositories of specimens, with some modifications to accommodate codens for personal collections:

– **ACCF**: Alain Coache Collection, Impasse de l'Artémise 004700, La Brillanne, France ([alain.coache@gmail.com](mailto:alain.coache@gmail.com)).

– **AMNH**: American Museum of Natural History, Department of Entomology, Central Park West at 79th Street, New York, New York 10024-5192, United States of America (Lee Herman; [herman@amnh.org](mailto:herman@amnh.org)).

– **BMNH**: British Museum of Natural History, Department of Entomology, SW 5BD, London, United Kingdom (Beulah Garner; [b.garner@nhm.ac.uk](mailto:b.garner@nhm.ac.uk)).

– **CASC**: California Academy of Sciences, Department of Entomology, Golden Gate Park, San Francisco, California 94118, United States of America (Jere Schweikert; [jschweikert@calacademy.org](mailto:jschweikert@calacademy.org)).

– **CMNC**: Canadian Museum of Nature, Insect Collection, Post Office Box 3443, Station D, Ottawa, Ontario, Canada K1P 6P4, Canada (Robert S. Anderson; [randerson@mus-natur-ca](mailto:randerson@mus-natur-ca). Francois Genier; [fgenier@mus-natur.ca](mailto:fgenier@mus-natur.ca)).

– **CMNH**: Carnegie Museum of Natural History, Invertebrate Zoology, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213, United States of America (Robert L. Davidson; [davidson@clpgh.org](mailto:davidson@clpgh.org); Robert Andrew; [androw@carnegiemnh.org](mailto:androw@carnegiemnh.org)).

– **FMNH**: Field Museum of Natural History, Department of Entomology, Roosevelt Road at Lake Shore Drive, Chicago, Illinois 60605, United States of America (Crystal Maier; [emaier@fieldmuseum.org](mailto:emaier@fieldmuseum.org)).

– **FSCA**: Florida State Collection of Arthropods, Division of Plant Industry/Entomology, Florida Department of Agriculture and Consumer Services, 1911 SW 34<sup>th</sup> Street, Gainesville, FL 32614-7100, United States of America (Paul E. Skelley; [Paul.Skelley@FreshFromFlorida.com](mailto:Paul.Skelley@FreshFromFlorida.com)).

– **MNHN**: Muséum National d'Histoire Naturelle, Entomologie, Section Coléoptères, C. P. 50, 45 rue Buffon, F – 75231, Paris cedex 05, France (Antoine Mantilleri; [amantill@mnhn.fr](mailto:amantill@mnhn.fr)).

– **RGCG**: Roland Gerstmeier Collection, Technisches Universität München, Lehrstuhl für Zoologie, AG Entomologie, Hans-Carl-von-Carlowitz-Platz 2, 85354 Freising, Germany ([r.gerstmeier@wzw.tum.de](mailto:r.gerstmeier@wzw.tum.de)).

– **RMNH**: Naturalis Biodiversity Center, Vondellaan 55, 2332 AA, Leiden, The Netherlands (Hans Huijbregts; [hans.huijbregts@naturalis.nl](mailto:hans.huijbregts@naturalis.nl)).

– **SDEI**: Deutsches Entomologisches Institut, Leibniz-Zentrum für Agrarlandschafts- und Landnutzungsforschung e. V. Eberswalde Str. 84, D-15374 Müncheberg, Germany (Lutz Behne; [lbehne@senckenberg.de](mailto:lbehne@senckenberg.de)).

– **TAMU**: Texas A & M University, College of Agriculture and Life Sciences, Department of Entomology, Minnie Belle Heep Building, College Station, Texas 77843-7029, United States of America (Andrew J. Graf; [cipher\\_the\\_noble@tamu.edu](mailto:cipher_the_noble@tamu.edu)).

– **TMSA**: Transvaal Museum, 01 Paul Kruger Street, P. O. Box 413, 0001 Pretoria, Republic of South Africa (Ruth Müller; [muller@nfi.co.za](mailto:muller@nfi.co.za)).

– **WFBM**: William F. Barr Museum, University of Idaho, Department of Plant, Soil, and Entomological Sciences, 606 Rayburn Street, Moscow, Idaho 83844-2339, United States of America (Luc Leblanc; [leblanc@uidaho.edu](mailto:leblanc@uidaho.edu)).

– **WOPC**: Weston Opitz Collection, Research Associate, Florida State Collection of Arthropods, Division of Plant Industry/Entomology, Florida Department of Agriculture and Consumer services, 1911 SW 34<sup>th</sup> Street, Gainesville, Florida 32614-7100, United States of America ([opitz@kwu.edu](mailto:opitz@kwu.edu)).

## Taxonomy

### *Nolafigura* Opitz, new genus

ZooBank : <http://zoobank.org/F575BA30-538B-4E04-925B-A4E4D3AEC8B6>

**Type Species.** – *Nolafigura coachei* Opitz, new species.

**Diagnosis.** – In a key to the genera of Korynetinae (Opitz, 2011) *Nolafigura* keys out to *Korynetes* Herbst from which *Nolafigura* is distinguished by showing a campaniform prothorax and by lacking an acumination on the posterior angles of the pronotum.

**Synapotypic characteristic.** – Prothorax campaniform (Fig. 1).

### Description

**Size.** – Length 5.0-6.0 mm. – Width 1.2-1.5 mm.

**Form.** – Oblong, subcylindrical, about 4 times longer than broad.

**Vestiture.** – Disc of cranium and pronotum profusely vested with dark setae, elytral disc vested with 1° setae and shorter profusely distributed 2° setae.

**Head.** – *Cranium* quadrate (Fig. 4), *frons* very wide, indented with small setiferous punctation, latter not contiguous. – *Gula* large (Fig. 7), quadrate, sutures linear, post-gular process short and bifid distally

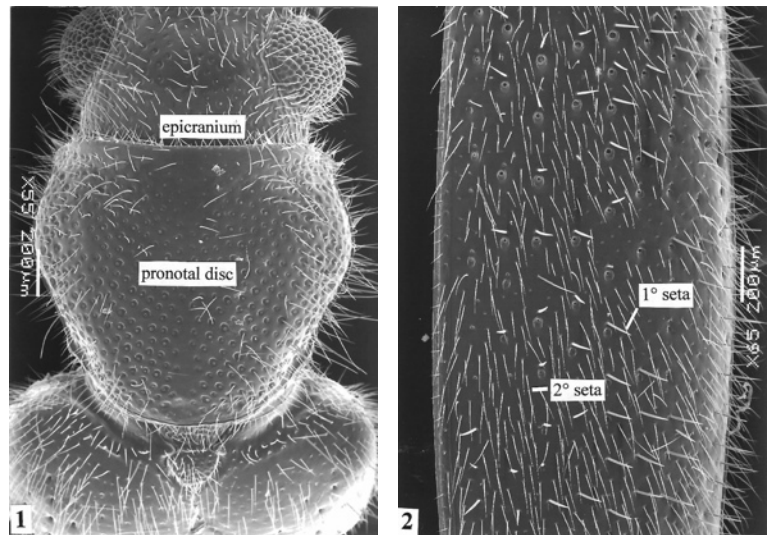


Fig. 1-2. – Structures of *Nolafigura coachei* n. sp. – 1 : Forebody. – 2 : Elytron.

(Fig. 8). – *Labrum* short, medial incision deep and broad. – *Mandible*, body short, subacuminate. – *Maxilla* (Fig. 3), terminal palpomeres subsecuriform. – *Labium* (Fig. 3), terminal palpomere subsecuriform. – *Eyes* small, coarsely faceted, ocular notch small. – *Antenna* (Fig. 5), capitate, capitulum lax, *scape* large, longer than combined length of pedicel and antennomeres 3, funicular antennomeres (Fig. 6) filiform, progressively shorter to capitulum, capitar antennomeres 9 and 10 triangularly expanded, antennomere 11 ovoid.

**Thorax.** – *Pronotum* campaniform/quadrate, convex, side margins not serrulate, disc finely punctate, prointercoxal process (Fig. 9) expanded distally. – *Pronotal projection* long, contacting but not fused to prointercoxal process. – *Elytral basal* 1/2 sculptured with large spheroid asetiferous punctures that diminish in elytral distal 1/4<sup>th</sup>, asetiferous punctures subseriate, 1° setae always adjacent to asetiferous punctation, 2° setae present (Fig. 2), epipleural fold narrows to elytral apex, anterior margin not carinate. – *Legs*, tibial spur formula 2-2-2, tarsal pulvillar formula 3-3-3, unguis (Fig. 11, 12) with slightly-developed denticle. – *Metendosternite* with well-developed furcal laminae (Fig. 10).

**Abdomen.** – With 6 visible *sternites*. – *Aedeagus* (Fig. 29) shorter than length of abdomen, with 2 phallobasic lobes, latter fimbriate. – Apices of lateral plates of spicular fork acuminate, spicular apodemes fused together.

**Distribution.** – This monotypic genus is known from Benin, West Africa.

**Etymology.** – The generic name *Nolafigura* is a Latin compound name derived from the noun *nola* (= little bell) and *figuro* (= form). I refer to the bell-like shape of the prothorax. Gender: Feminine.

### *Nolafigura coachei* Opitz n. sp.

(Fig. 1-13, 29, 42)

ZooBank : <http://zoobank.org/A56A854D-0FCD-4E53-9AFB-CC8FBEBE2AA6>

**Holotype.** ♂. AFRIQUE DE L'OUEST, BENIN ATTOGON, FORET DE NIAOULI, DANS TERMITIERE, 03 V 2013, LEG ALAIN COACHE (= West Africa, Benin, Attoгон, Niaouli forest) (FSCA).

**Paratypes.** Six specimens:

– **Benin**, West Africa, Attoгон, Village, 03 V 2013, Alain Coache (ACCF, 1)

– *idem*, Niaouli forest, 28-IV-2013, Alain Coache (ACCF, 3; WOPC, 2).

**Diagnosis.** – This is the only known species in *Nolafigura*, readily identifiable by viewing Fig. 13.

**Description**

**Size.** – Length 5.4 mm. – Width 1.5 mm.

**Form** (Fig. 13).

**Color.** – Mouthparts, antennae, and legs testaceous, remainder dark blue.

**Head.** – Antennal capitulum well developed (Fig. 5), capitular antennomeres 9 and 10 triangular, antennomere 11 ovoid. – Terminal maxillary and labial palpomeres subsecuriform. – Eyes much narrower than frons (EW/FW 18/40).

**Thorax.** – Pronotum (Fig. 1) campaniform/quadrangle (PW/PL 78/78), side margins sinuous; elytral asetiferous punctures diminish in size at elytral distal 3/4<sup>th</sup>, punctures subseriate, interstitial spaces smooth and shiny (EL/EW 215/50).

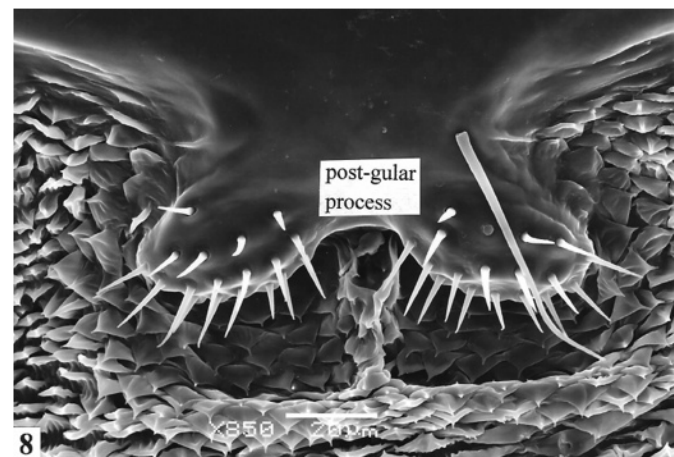
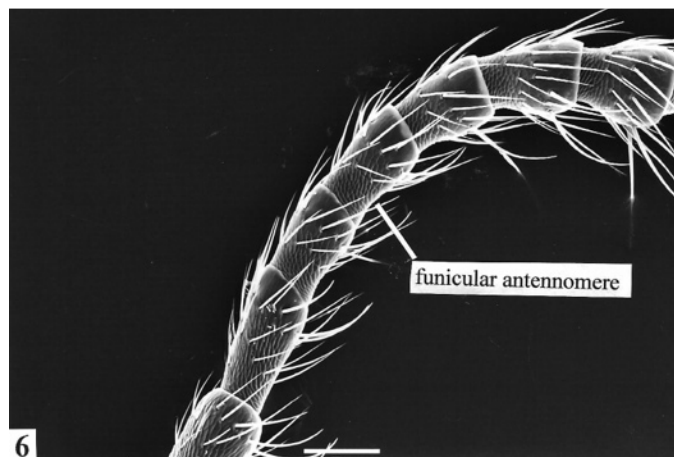
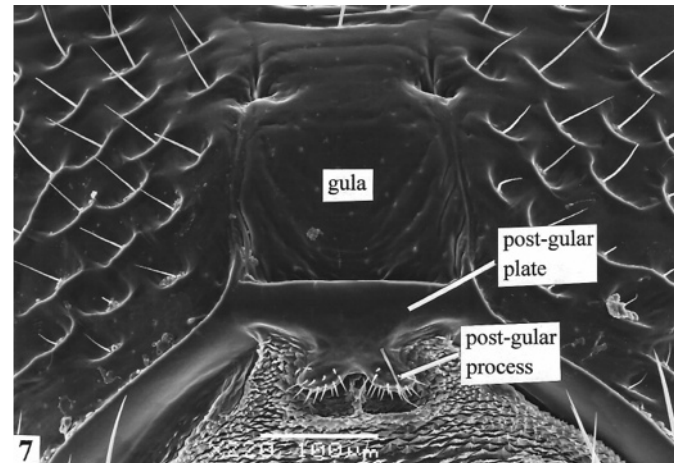
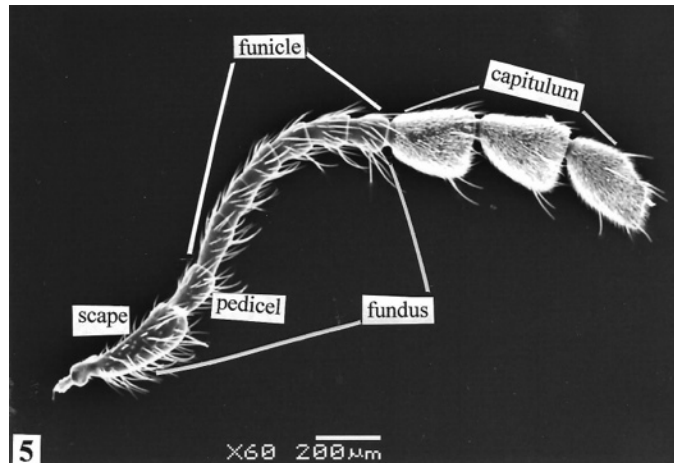
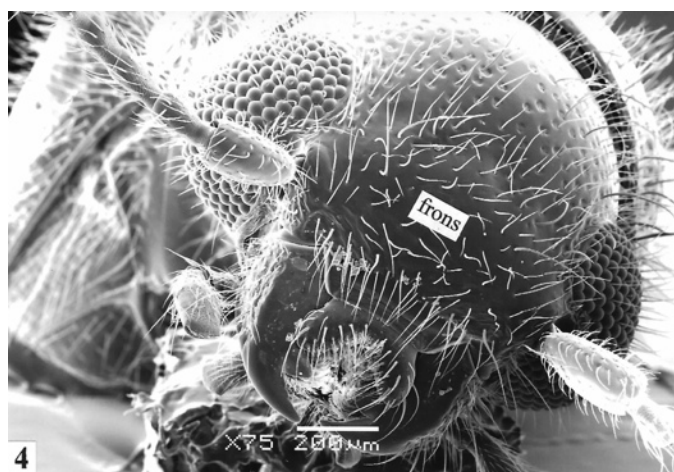
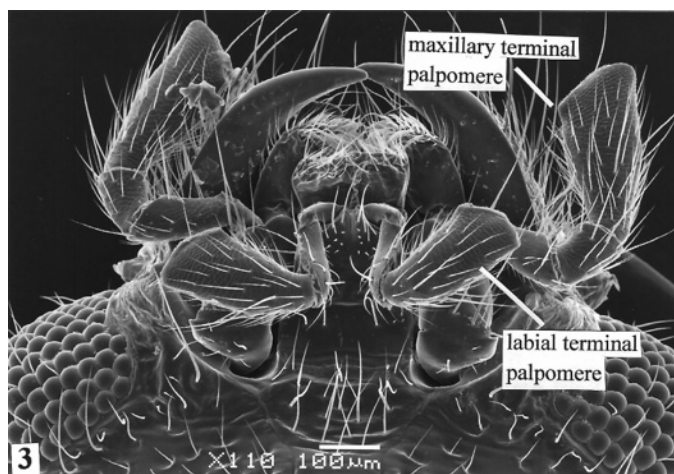
**Abdomen.** – Pygidium transverse/scutiform. – Aedeagus (Fig. 29), with 2 phallobasic lobes, latter fimbriate, phallobase slightly constricted at middle 1/2, phallobasic rod short.

**Variations.** – Except for body size, the available specimens are quite homogeneous.

**Natural History.** – The available specimens were collected during April and May.

**Distribution** (Fig. 42). – This species is known only from Benin, West Africa.

**Etymology.** – The specific epithet, *coachei*, is a dedicative patronymic to honor Alain Coache for his contributions to Taxonomic Entomology.



**Fig. 3-8.** - Structures of *Nolafigura coachei* n. sp. - 3 : Mouthparts. - 4 : Head. - 5 : Complete antenna. - 6 : Funicular antennomeres. - 7 : Head venter. - 8 : Post-gular process.

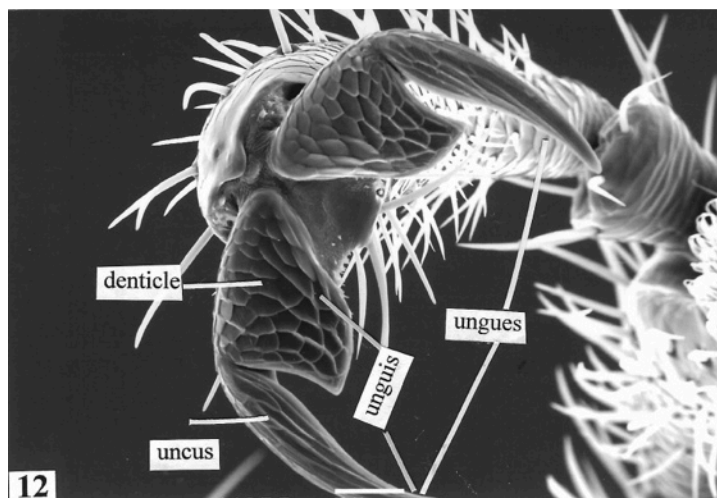
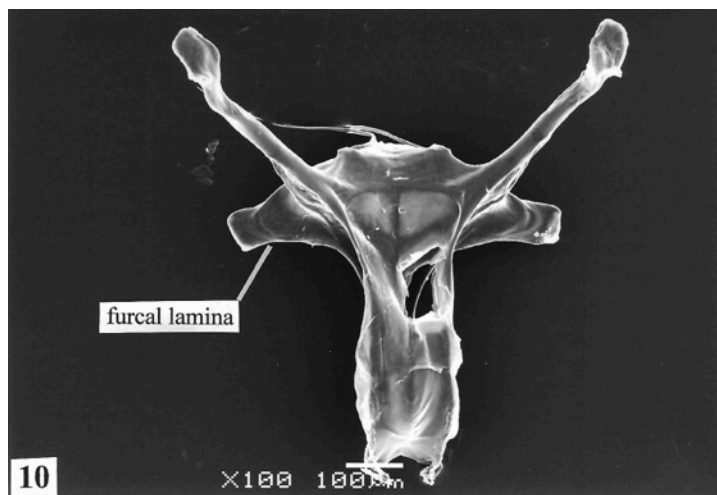
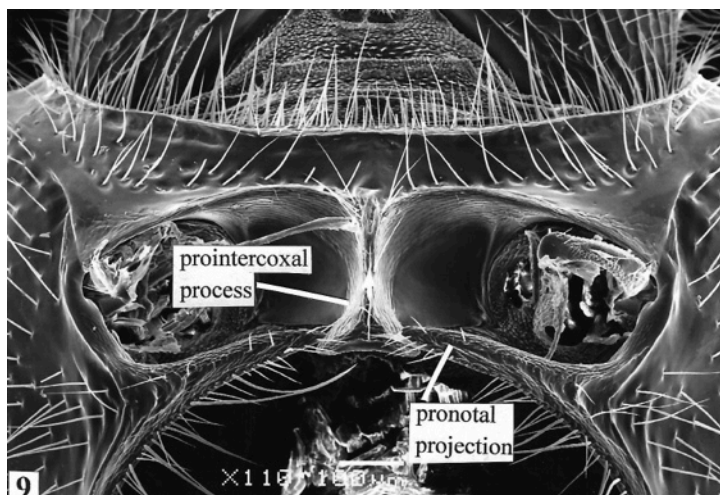


Fig. 9-12. - Structures of *Nolafigura coachei* n. sp. - 9 : Prothoracic venter. - 10 : Metendosternite. - 11 : Metathoracic tarsus. - 12 : Metatarsal unguis.

***Korynetes apiculus* Opitz n. sp.**

(Fig. 14, 30, 42)

ZooBank : <http://zoobank.org/B15520CC-C8C9-4CFE-AD6A-2A064B92C23D>

**Holotype.** ♂. REP. SOUTH AFRICA: Natal, 75 km WSW Estcourt, Cathedral Peak For. Sta. 7-31.XII.79, S. & J. Peck (CMNC).

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes apiculus* specimens key out to *K. latipennis* Pic, from which *K. apiculus* specimens differ by showing a slenderer body form.

**Description**

**Size.** – Length 3.0 mm. – Width 1.2 mm.

**Form** (Fig. 14).

**Color.** – Mouthparts, antenna, and legs testaceous. – Cranium, thorax, elytra, and abdomen blue.

**Head.** – Cranium coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively shorter to capitulum, antennomeres 9 and 10 cupuliform, antennomere 11 spheroid. – Eyes shallow, much narrower than frons (EW/FW 13/25).

**Thorax.** – Pronotal side margins minutely serrulate, disc quadrate (PW/PL 58/58), coarsely punctate throughout disc, with posterolateral angle. – Elytral punctuation arranged into 10 striae, punctuation extends to near elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin abruptly narrows at elytral distal 3/4<sup>th</sup> (EL/EW 170/50).

**Abdomen.** – Pygidium scutiform, aedeagus as in Fig. 30. – Phallobase broad, phallic apex extended.

**Natural History.** – The available specimen was collected during December.

**Distribution** (Fig. 42). – Known from South Africa.

**Etymology.** – The specific epithet, *apiculus*, is a Latin name with the meaning of “point”. I refer to the extended form of the elytral apex.

***Korynetes bifidus* Opitz n. sp.**

(Fig. 15, 31, 42)

ZooBank : <http://zoobank.org/61C50B48-A745-4FC1-9DFB-BC63A917D996>

**Holotype.** ♀. AFRIQUE DE L'OUWEST, SENEGAL, NIANING, 13-I-2007, LUMIERE, ALAIN COACHE (= West Africa). A second label reads: O. C. I. S, SENEGAL, A. COACHE, OCIS009818 (FSCA).

**Paratypes.** Eighteen specimens:

- Senegal, Nianing, 13-I-2007, Alain Coache (ACCF, 3; WOPC, 1)
- *idem*, 18-I-2007, Alain Coache (ACCF, 1)
- *idem*, 19-I-2007, Alain Coache (ACCF, 1; WOPC, 1)
- *idem*, 20-I-2007, Alain Coache (ACCF, 2; WFBM,1; WOPC, 1)
- *idem*, 11-I-2007, Alain Coache (BMNH, 1)
- *idem*, 7-I-2007, Alain Coache (CMNH, 1)

- *idem*, 12-I-2007, Alain Coache (ACCF, 1)
- *idem*, 31-I-2007, Alain Coache (ACCF, 1)
- *idem*, 29-I-2007, Alain Coache (FMNH, 1)
- *idem*, 17-XI-2007, Alain Coache (USNM, 1).

– **Benin**, Lokossa, Quartier Agonve, 27-XII-2016, Alain Coache (TAMU, 1).

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes bifidus* specimens key out to *K. scabripennis* Spinola, from which *K. bifidus* specimens differ by showing yellow legs. The legs are black in specimens of *K. scabripennis*.

### Description

**Size.** – Length 6.8 mm. – Width 2.8 mm.

**Form** (Fig. 15).

**Color.** – Mouthparts, antenna, legs, and abdominal sternites IV-VI testaceous; cranium, thorax, and elytra dark blue; visible abdominal sternites I-III brown.

**Head.** – Cranium coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively more moniliform, antennomeres 9 and 10 triangular, antennomere 11 spheroid. – Eyes shallow, much narrower than frons (EW/FW 25/40).

**Thorax.** – Pronotal side margins not serrulate, disc very transverse (PW/PL 120/92), punctate throughout disc, interstitial spaces smooth and shiny, with posterolateral angle. – Elytral punctation arranged into 12 striae, punctation extends to elytral posterior 3/4<sup>th</sup>, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin ends at about distal 3/4<sup>th</sup> (EL/EW 260/95).

**Abdomen.** – Pygidium scutiform, aedeagus as in Fig. 31, phallobasic rod bifid distally, posterior angle of spicular plate prolonged and acuminate.

**Variations.** – Size: Length 5.5-6.0 mm; width 2.0.-2.7 mm. Other than body size, the beetles before me are quite homogeneous.

**Natural History.** – The available specimens were collected during November through January.

**Distribution** (Fig. 42). – Known from Senegal and Benin.

**Etymology.** – The specific epithet, *bifidus*, is a Latin name with a meaning of “split into two parts”. I refer to the bipartite condition of the distal region of the phallobasic rod.

### *Korynetes clavulus* Opitz n. sp.

(Fig. 16, 32, 43)

ZooBank : <http://zoobank.org/C904D4CC-B2A6-491F-8C9F-5A77A36B240D>

**Holotype.** ♂. AFRIQUE DE L’OUEST, BENIN, POBE, FORET DE POBE, 13 II 2017, ULTRA VIOLET, LEG. ALAIN COACHE (= West Africa). A second label reads: O. C. I. S, SENEGAL, A. COACHE, OCIS009863 (FSCA).

**Paratypes.** Two specimens:

- **Benin**, Bohicon, 25-IV-2013, ultra violet, Alain Coache (ACCF, 1)
- *idem*, 24-X-2012, ultra violet, Alain Coache (WOPC, 1).

**Diagnosis.** – The diminutive antennal capitulum will distinguish the members of this species from congeners.

### Description

**Size.** – Length 4.0 mm. – Width 1.5 mm.

**Form** (Fig. 16).

**Color.** – Mouthparts, antennae, and legs testaceous brown. – Thorax and elytra dark blue. – Abdomen bicolored, visible abdominal sternites I-III black, sternites IV-VI yellow.

**Head.** – Cranium coarsely punctate. – Antennal capitulum small, lax, funicular antennomeres become progressively shorter to capitulum, antennomeres 9 and 10 cupuliform, antennomere 11 ovoid. – Eyes large, same width as frons (EW/FW 21/21).

**Thorax.** – Pronotal side margins serrulate, disc transverse (PW/PL 80/70), punctate throughout disc, interstitial spaces smooth and shiny, with posterolateral angle. – Elytral punctation arranged into 10 striae, punctation extends to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleuron narrows to elytral apex (EL/EW 190/60).

**Abdomen.** – Pygidium scutiform. – Aedeagus as in Fig. 32, phallic apex large triangular.

**Natural History.** – The available specimens were collected during February, April, and October, some in an ultraviolet light trap.

**Distribution** (Fig. 43). – Known from Benin.

**Etymology.** – The specific epithet, *clavulus*, is a Latin name that stems from *clavula* (= diminutive club). I refer to the small size of the antennal capitulum.

### *Korynetes divilgatus* Opitz n. sp.

(Fig. 18, 33, 42)

ZooBank : <http://zoobank.org/C32F397B-AA96-48E0-B96B-4235C0D9E1FA>

**Holotype.** ♂. S. Afr. W Cape, Seweweekspoort, 33°26’S – 21°25’E, 10.12.1995, beating, Endrödy-Younga (TMSA)

**Paratypes.** Five specimens:

#### South Africa

- West Cape, Seweweekspoort, 33°26’S – 21°25’E, 10.12.1995, beating, Endrödy-Younga (TMSA, 1; WOPC, 1)
- Gamkaberg national Reserve, 33°41’S – 21°54’E, 8-9-XII-1995, beating, C. L. Belamy (TMSA, 2; WOPC, 1).

**Diagnosis.** – The extended shape of the last antennomere will distinguish the members of this species from congeners.

### Description

**Size.** – Length 3.0 mm. – Width 1.0 mm.

**Form** (Fig. 18).

**Color.** – Mouthparts, antenna, and legs testaceous, except tarsi dark brown. – Cranium, thorax, elytra, and abdomen black.

**Head.** – Cranium coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively more moniliform, antennomeres 9 and 10 cupuliform, antennomere 11 spheroid. – Eyes shallow, much narrower than frons (EW/FW 10/30).

**Thorax.** – Pronotal side margins slightly serrulate, disc slightly transverse (PW/PL 60/55), coarsely punctate throughout disc, with posterolateral angle. – Elytral punctation arranged into 11 striae, punctation extends to elytral posterior 3/4<sup>th</sup>, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin ends near distal 3/4<sup>th</sup> (EL/EW 125/40).

**Abdomen.** – Pygidium scutiform, aedeagus as in Fig. 33. – Base of tegmen with sclerotized ring. – Posterior angle of spicular plate prolonged and acuminate.

**Variations.** – Size: Length 2.3-3.8 mm; width 0.8.-1.2 mm. Other than body size, the beetles before me are quite homogeneous.

**Natural History.** – The available specimens were collected by beating, during December.

**Distribution** (Fig. 42). – Known from South Africa.

**Etymology.** – The specific epithet, *divilgatus*, is a Latin name derived from *divilgo* (= spread). I refer to the extended shape of the last antennomere.

***Korynetes fuscopedis* Opitz n. sp.**

(Fig. 19, 43)

ZooBank : <http://zoobank.org/CD57F901-1D07-4B04-A064-01510597047B>

**Holotype.** ♀. AFRIQUE DE L'OUEST, BENIN, HOUYOGBE, FORET DE HOUYOGBE, 01 IV 2013, ULTRA VIOLET, LEG. ALAIN COACHE (= West Africa). A second label reads: O. C. I. S, SENEGAL, A. COACHE, OCIS009865 (FSCA).

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes fuscopedis* specimens key out to *K. enodes*, from which *K. fuscopedis* specimens differ by showing a blue forebody and bicolored legs. The forebody is black and the legs are entirely brown in specimens of *K. enodes*.

**Description**

**Size.** – Length 5.0 mm. – Width 1.8 mm.

**Form** (Fig. 19).

**Color.** – *Mouthparts* brown. – *Antenna* bicolored, fundus testaceous, capitulum brown. – *Thorax* and *elytra* dark blue, *legs* bicolorous, *femora* testaceous, *tibiae* and *tarsi* brown. – *Abdomen* bicolored, visible abdominal sternites I-III black, sternites IV-VI yellow.

**Head.** – *Cranium* coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively more moniliform, antennomeres 9 and 10 triangular, antennomere 11 ovoid/truncate. – *Eyes* large, narrower than frons (EW/FW 20/32).

**Thorax.** – Pronotal side margins minutely serrulate, disc slightly transverse (PW/PL 80/77), punctate throughout disc, interstitial spaces smooth and shiny, with posterolateral angle. – *Elytral punctation* arranged into 10 striae, punctation extends to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleuron narrows to elytral apex (EL/EW 190/60).

**Abdomen.** – *Pygidium* scutiform.

**Natural History.** – The holotype was collected during April, in an ultraviolet light trap.

**Distribution** (Fig. 43). – Known from Benin.

**Etymology.** – The specific epithet, *fuscopedis*, is a Latin compound name that stems from *fuscus* (= dusky) and *pedis* (= foot). I refer to the coloration of the legs.

***Korynetes kruger* Opitz n. sp.**

(Fig. 17, 34, 42)

ZooBank : <http://zoobank.org/5D025FC9-86E5-4E6D-BC25-45F12290E87E>

**Holotype.** ♂. S. AFRICA, TVL, Kruger N. PK. Skukuza, 30.XI-3.XII. 1984, H. & A. Howden. A second label reads; malaise trap (CMNC).

**Paratypes.** Eleven specimens:

**South Africa**

– Transvaal, Kruger National Park. Skukuza, 30.XI-3.XII. 1984, H. & A. Howden (CMNC, 3; WOPC, 2)

– 25 km W Pretoria, 23-29-XI-1984, H. & A. Howden (CMNC, 3; TAMC, 1; WOPC, 2).

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes kruger* specimens key out to *K. enodes* Opitz, from which *K. kruger* specimens differ by showing the striate elytral asetiferous punctures extending beyond the elytral middle.

**Description**

**Size.** – Length 3.8 mm. – Width 1.4 mm.

**Form** (Fig. 17).

**Color.** – *Mouthparts*, *antenna*, and *legs* testaceous, except metathoracic femora brown. – *Cranium*, *thorax*, *elytra*, and *abdomen* black.

**Head.** – *Cranium* coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively shorter to capitulum, antennomeres 9 and 10 cupuliform, antennomere 11 spheroid. – *Eyes* shallow, much narrower than frons (EW/FW 10/40).

**Thorax.** – Pronotal side margins minutely serrulate, disc slightly transverse (PW/PL 75/70), coarsely punctate throughout disc, with posterolateral angle. – *Elytral punctation* arranged into 10 striae, punctation extends to near elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin ends near elytral distal 3/4<sup>th</sup> (EL/EW 160/50).

**Abdomen.** – *Pygidium* scutiform, *aedeagus* as in Fig. 34. – *Phallobase* slightly spatulate.

**Variations.** – Size: Length 2.2-3.8 mm; width 1.0-1.4 mm. Except for body size, the available specimens are quite homogeneous.

**Natural History.** – The available specimens were collected from 23 November 23 to 3 December, in a Malaise trap.

**Distribution** (Fig. 42). – Known from The Republic of South Africa.

**Etymology.** – The specific epithet, *kruger*, is a noun in apposition and refers to the type locality.

***Korynetes ligulus* Opitz n. sp.**

(Fig. 20, 35, 43)

ZooBank : <http://zoobank.org/A6A30DD0-C7F6-4BDB-99C6-59E3F1B0D189>

**Holotype.** ♂. South Africa: Waterberg, Geelhoutbush farm, 24°22'S 27°33'E, 3.10.1995, beating, Endrödy & Bellamy (TMSA).

**Paratypes.** Forty-one specimens:

**Republic of South Africa**

– Waterberg, Geelhoutbush farm, 24°22'S 27°34'E, 10-X-1995, Pyrethrum fogging *Peltophorum africanum*, Endrödy & Bellamy (TMSA, 2; WOPC, 1)

– Northern Prov., Geelhoutbush farm, 24°22'S 27°34'E, 15-I-1999, general, C. L. Bellamy (TMSA, 2; WOPC, 1)

– *idem*, 24°22'S 27°33'E, 3-X-1995, beating around camp, Endrödy & Bellamy (WOPC, 1)

– *idem*, 24°22'S 27°34'E, 2-XI-1999, Bellamy. MacFayden (TMSA, 1)

– *idem*, 24°22'S 27°34'E, 14-I-1999, C. L. Bellamy (TMSA, 1)

– 20 km W Thabazimbi, 24°35.191'S 27°14.959'E, riparian forest by Crocodile River, 4.III-29.IV.2000, flight intercept trap, T. K. Philips (WOPC, 1)

– *idem*, 5-II-2000, riparian forest by Crocodile River, flight intercept trap, T. K. Philips (WOPC, 1)

– *idem*, 12-XII-5.II.2000, riparian forest by Crocodile River, flight intercept trap, T. K. Philips (WOPC, 2)





13



14



15



16

Fig. 13-16. - Habitus of *Nolafigura* and *Korynetes* species. - 13 : *Nolafigura coachei* n. sp. - 14 : *Korynetes apiculus* n. sp. - 15 : *K. bifidus* n. sp. - 16 : *K. clavulus* n. sp.

- Borakalalo Nature Reserve, Moratele Camp, 22-25-XI-1999, C. L. Bellamy (WOPC, 1)
- Musina Natural Reserve, 22°21'S 30°03'E, 12-XII-2000, beating, Müller, Burger (TMSA, 3; WOPC, 2)
- Amatola, Scott farm, 27-I-1998, misc. beating, R. Müller (TMSA, 1)
- Limpopo Prov. Amatola frm. Soutpansb, 22°56'S 29°23'E, 17-XII-2003, R. Müller (TMSA, 3)
- Silkaatsnek, 25°40'S 27°55'E, 30-XI-1995, beating, C. L. Bellamy (TMSA, 2; WOPC, 1)
- Little Karroo, Raubenheimer dam E, 33°25'S 22°19'E, 30-X-1993, beating *Acacia*, Endrödy-Younga (TMSA, 1; WOPC, 1)
- KWZ Natal Ntinni Nat. Res., 28°16'S 30°55'E, 30-XI-2010, 1022 m, on vegetation and ground, R. Müller (TMSA, 1; WOPC, 1)
- Transvaal Prov. Pretoria Wapadsnek, 25°47'S 28°20'E, 16-I-1987, R. B. Kimsey (UCDC, 1)
- North West Prov. Borakalalo Nat. Res., 25°07'S 27°47'E, 22-25-XI-1999, Bellamy, MacFayden (TMSA, 1)
- Cape Swartberg, 33°25'S 22°33'E, in water fall, 1-XI-1993, Endrödy-Younga (TMSA, 1)
- West Cape, Knuyrivier, 33°36'S 21°11'E, 10-XII-1995, beating, C. L. Bellamy (TMSA, 1)
- Cape, Cederbg., Algeria forest, 32°22'S 19°03'E, 3-XI-1981, sifted gallery bush, Endrödy-Younga (TMSA, 1)
- Kalahari Pk., 25 km S Mata-Mata, 26°00'S 20°15'E, 18-XII-1974, Endrödy-Younga (TMSA, 1)
- Pretoria, Transvaal, ?-II-1972, L. Schulze (WOPC, 1)
- South Africa, ?-XII-1929, R. E. Turner (BMNH, 1).

#### Namibia

- Naukluft, Naukluft Park, 24°16'S 16°15'E, 26-X-1974, Endrödy-Younga (TMSA, 1)
- Gobabeb, Kuiseb Riverm, ?-XI-1979, B. Wharton & Gray (TMSA, 2).

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes ligulus* specimens key out to *K. enodis* Opitz, from which *K. ligulus* specimens differ by showing less serrulated side margins of the pronotum, the asetiferous elytral punctures extend beyond elytral middle 1/2, and the pronotal disc is densely punctated.

#### Description

**Size.** – Length 3.5 mm. – Width 1.2 mm.

**Form** (Fig. 20).

**Color.** – *Mouthparts* testaceous, except terminal palpomeres brown. – *Antenna* testaceous. – *Head, thorax, elytra, and abdomen* black.

**Head.** – *Cranium* vested with shallow punctation. – Antennal capitulum lax, funicular antennomeres become progressively more moniliform, antennomeres 9 and 10 cupuliform, antennomere 11 oval. – *Eyes* shallow, much narrower than frons (EW/FW 12/28).

**Thorax.** – Pronotal side margins not serrulate, disc transverse (PW/PL 61/53), coarsely punctate throughout disc, with sharp posterolateral angle. – *Elytral punctation* arranged into 10 striae, punctation ends just before elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin ends near distal 3/4<sup>th</sup> (EL/EW 130/45).

**Abdomen.** – *Pygidium* scutiform. – *Aedeagus* as in Fig. 35. – *Tegmen* spatulate. – *Phallus* without postapical sclerotization. – Posterior angle of spicular plate prolonged, spicular apodeme extraordinarily elongated.

**Variations.** – Size: Length 2.5-4.0 mm; width 1.0-1.6 mm. Other than body size the beetles before me are quite homogeneous.

**Natural History.** – The available specimens were collected from October through February, one at 1022 m. Endrödy-

Younga and C. L. Bellamy captured one specimen by fogging the African blackwood [*Peltophorum africanum* Sond (Fabaceae)]. Endrödy-Younga collected another specimen on *Acacia* Miller (Fabaceae). Other specimens were collected by beating and in a flight intercept trap.

**Distribution** (Fig. 43). – Known only from The Republic of South Africa.

**Etymology.** – The specific epithet, *ligulus*, (= ladle) is a Latin noun. I refer to the shape of the tegmen.

#### *Korynetes luminosus* Opitz n. sp.

(Fig. 21, 36, 44)

ZooBank : <http://zoobank.org/FFE1D3AC-FA22-45EB-ADA5-8661B9305C35>

**Holotype.** ♂. S. AFRICA, Cape P., Pneil Road, 35 km W Kimberley, 15.XII.1984, H. & A. Howden (CMNC).

**Paratypes.** Three specimens:

- **South Africa**, Cape Province, Pneil Road, 35 km W Kimberley, 15-XII-1984, H. & A. Howden (CMNC, 2; TMSA, 1; WOPC, 1).

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes luminosus* specimens key out to *K. latipennis* Pic, from which *K. luminosus* specimens differ by showing a slenderer body form.

#### Description

**Size.** – Length 3.5 mm. – Width 1.4 mm.

**Form** (Fig. 21).

**Color.** – *Mouthparts, antenna, and legs* testaceous. – *Cranium, thorax, elytra, and abdomen* blue.

**Head.** – *Cranium* coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively shorter to capitulum, antennomeres 9 and 10 cupuliform, antennomere 11 spheroid. – *Eyes* shallow, much narrower than frons (EW/FW 10/40).

**Thorax.** – Pronotal side margins minutely serrulate, disc slightly transverse (PW/PL 80/70), coarsely punctate throughout disc, with posterolateral angle. – *Elytral punctation* arranged into 10 striae, punctation extends to near elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold minutely serrulate, epipleural margin narrows to elytral apex (EL/EW 170/50).

**Abdomen.** – *Pygidium* scutiform, *aedeagus* as in Fig. 36. – *Phallobase* broad, phallic apex large triangular.

**Variations.** – Size: Length 2.2-3.8 mm; width 1.0-1.4 mm. Except for body size, the available specimens are quite homogeneous.

**Natural History.** – The available specimens were collected during December.

**Distribution** (Fig. 44). – Known from South Africa.

**Etymology.** – The specific epithet, *luminosus*, is a Latin name with the meaning of “full of light”. I refer to the bright hue emitted from the dorsum of these beetles.

#### *Korynetes morulus* Opitz n. sp.

(Fig. 22, 44)

ZooBank : <http://zoobank.org/8E1B22B5-30BC-4FE5-AFB0-68AF9F4C302D>

**Holotype.** ♀. South Africa, SW Cape, Zuurefontein farm, 32°50'S – 18°34'E. A second label reads: 31.8.1981, E-Y 1872, ground traps, 59 days, Endrödy-Younga (TMSA).

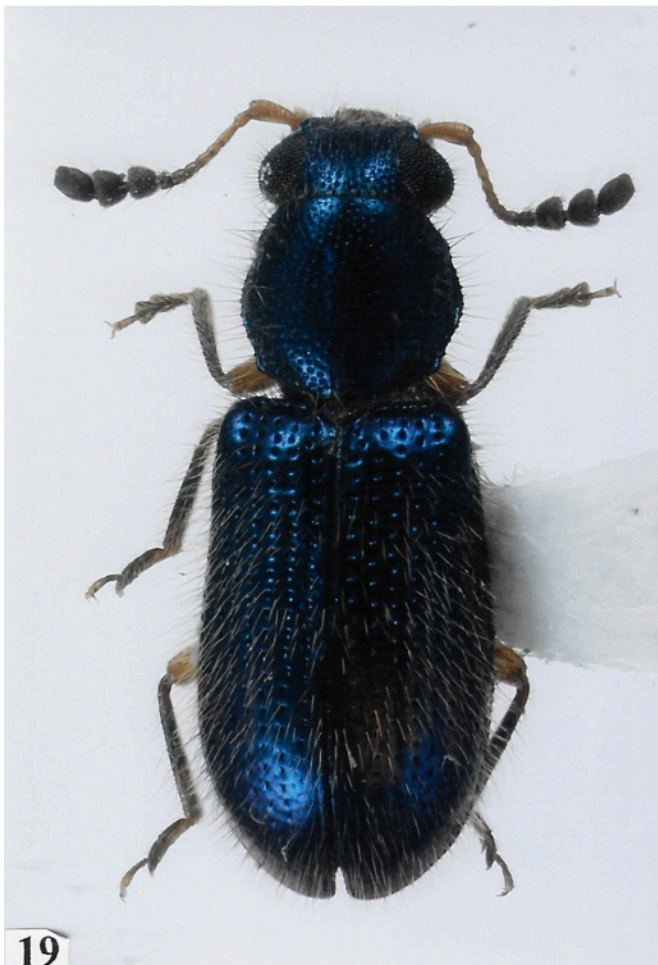


Fig. 17-20. - Habitus of *Korynetes* species. - 17 : *K. kruger* n. sp. - 18 : *K. divilgatus* n. sp. - 19 : *K. fuscopedis* n. sp. - 20 : *K. ligulus* n. sp.

**Paratype.** One specimen:

**South Africa**

– Cape Province, Worcester, Sept. 1928, R. E. Turner (BMNH, 1)  
– Malmesbury, 7-X-1951, on Compositae (WOPC, 1).

**Diagnosis.** – The small size (3.0 mm), acute shape of the hind region of the elytra, and completely black body color will distinguish the members of this species from congeners.

**Description**

**Size.** – Length 3.0 mm. – Width 1.8 mm.

**Form** (Fig. 22).

**Color.** – Black. – Elytral disc with bluish luster.

**Head.** – *Cranium* coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively more moniliform, antennomeres 9 and 10 triangular, antennomere 11 oblong-ovoid. – *Eyes* shallow, much narrower than frons (EW/FW 10/30).

**Thorax.** – Pronotal side margins serrulate, disc transverse (PW/PL 69/56), coarsely punctate throughout disc, with sharp posterolateral angle. – *Elytral punctation* arranged into 11 striae, punctation extends to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin ends near distal 3/4<sup>th</sup>, remainder of elytral margin slightly sinuous (EL/EW 140/50).

**Abdomen.** – *Pygidium* scutiform.

**Variations.** – Size: Length 2.7-3.0 mm; width 1.0-1.8 mm. The pronotal disc may show a more golden sheen and the elytral disc may be more blackish.

**Natural History.** – The holotype was collected in a ground trap, whereas one paratype was gathered from a Compositae.

**Distribution** (Fig. 44). – Known from The Republic of South Africa.

**Etymology.** – The specific epithet, *morulus*, (= black) is a Latin adjective and refers to the color of these beetles.

***Korynetes nigratarsus* Pic**

(Fig. 23, 37, 44)

*Corynetes nigratarsis* Pic, 1948: 1.

**Lectotype:** ♂. Here designated. (The Republic of South Africa) Boknes, E. C. P., 2-2-1947, J. C. van Hille (East Cape Province) (RMNH).

**Paralectotypes:** One. **Republic of South Africa**, Boknes, E. Cape, 20-I-1948, J. C. van Hille (RMNH). Corporaal 1950: 311. There are two specimens in the RMNH collection with the same information and handwriting on the collection labels. I believe that both of these specimens were before Pic at the time of his description preparation. However, Pic did not fix the name to either specimen; therefore, I invoke Article 74 of the ICZN (1999) and designate a lectotype and paralectotype for this nominal species.

**Diagnosis.** – The black coloration of the tarsi of these beetles will distinguish them from congeners.

**Redescription**

**Size.** – Length 2.0 mm. – Width 1.0 mm.

**Form** (Fig. 23).

**Color.** – *Mouthparts* testaceous, except terminal palpomeres brown. – *Antennae* and *tibiae* testaceous. – *Femora*, *tarsi*, *prothorax*, *elytra*, and *abdomen* black.

**Head.** – *Cranium* coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively more moniliform, antennomeres 9 and 10 cupuliform, antennomere 11 spheroid. – *Eyes* shallow, much narrower than frons (EW/FW 5/20).

**Thorax.** – Pronotal side margins slightly serrulate, disc transverse (PW/PL 42/35), disc coarsely punctate, with sharp posterolateral angle. – *Elytral punctation* substrate, punctures extend to elytral middle, elytral interstitial spaces smooth and shiny, epipleural margin ends near distal 3/4<sup>th</sup> where elytral margin not serrulate, upper margin of epipleural fold not serrulate (EL/EW 90/27).

**Abdomen.** – *Pygidium* scutiform. – *Aedeagus* as in Fig. 37.

**Variations.** – Size: Length 2.0-2.8 mm; width 1.0-1.3 mm. Except for differences in size and some variation of tarsal darkness, the beetles before me are quite homogeneous.

**Natural History.** – Most specimens were collected by beating, some on flowers, and some from flowering shrubs. C. L. Bellamy collected these beetles from the Butterfly Bush *Buddleia* Linnaeus (*Scrophulariaceae*).

**Distribution** (Fig. 44). – In addition to the type specimens I examined 45 specimens:

**The Republic of South Africa**

- W. Cape, Matjiesriver, 8 km SW, 33°24'S – 21°59'E, 11-XII-1995, beating, C. L. Bellamy
- Gamkaberg Nat. Res., 33°41'S – 21°54'E, 8-9-XII-95, beating, C. L. Bellamy
- E. Cape, Hankey, 33°50'S – 25°54'E, 6-XII-1995, flowering *Buddleia*, C. L. Bellamy
- Seweweekspoort, 33°26'S – 21°25'E, 10-XII-1995, beating, Endrödy-Younga
- Naudesberg Pass, 31°58'S – 24°43'E, 13-XII-1995, miscellaneous beating, C. L. Bellamy, Heuningskloof, 33°46'S – 24°56'E, 6-XII-1995, beating, C. L. Bellamy
- Cape Prov., Alexandria, 20 km N, 33°33'S – 28°23'E, 7-XII-1987, on flowers, Endrödy-Younga
- Little Karoo, Baviaanskloof, 33°39'S – 24°31'E, 6-XII-1995, beating, C. L. Bellamy
- Cape Province, Keurboomstrand, 34°00'S – 23°07'E, 15-XII-1976, beating, white flowering shrubs, Endrödy-Younga;
- Northern Prov., Kommandonek, 25°45'S – 27°47'E, 1-XII-1995, beating, C. L. Bellamy.

**Namibia**

- Namibgrens Farm, 23°37'S – 16°14'E, 4-II-2010, beating, R. Müller. Specimens are deposited in AMNH, CMNH, FMNH, TMSA and WOPC.

***Korynetes pelidnus* Opitz n. sp.**

(Fig. 24, 38, 44)

ZooBank : <http://zoobank.org/2F6094E9-C2CF-44CC-B794-2C84B8E1843D>

**Holotype.** ♂. Namibia, Purros, 300 m, 18°44'S – 12°56'E, 15-4-2005, at light, R. Müller (TMSA).

**Paratypes.** Twenty-four:

**Namibia**

- Purros, 18°44'S – 12°56'E, 15-IV-2005, 300 m, at light, R. Müller (TMSA, 1; WOPC, 2)
- Purros (Hoaruzsib), 15-16-IV-2005, 300 m, W. Schawaller (TMSA, 4; WOPC, 3)
- Orupembe, 14-IV-2005, 700 m, W. Schawaller (TMSA, 3; WOPC, 2)
- Karas, 42 km SE Keetmanshoop, 26°44'.266"S – 18°29'38"E, 25-II-2012, 850 m, H. Mühle (RGCG, 3)



Fig. 21-24. - Habitus of *Korynetes* species. - 21 : *K. luminosus* n. sp. - 22 : *K. morulus* n. sp. - 23 : *K. nigritarsus* n. sp. - 24 : *K. pelidnus* n. sp.

– *idem*, 40 km NE Keetmanshoop, 26°24'S – 18°28'E, 18-II-2010, 850 m, R. Müller (TMSA, 2; WOPC, 1)

– *idem*, Grünau, 42 km N, 27°22'.951"S – 18°30'936"E, 19-II-2012, 841 m, H. Mühle (WOPC, 2).

#### Republic of South Africa

– S. W. Africa, Gobabeb, Kuiseb Riv. Bed, ?-I-1980, R. Wharton (TMSA, 1).

**Diagnosis.** – Members of this species closely resemble those of *K. ustulatus* Opitz, nov.sp. But, in *K. pelidnus* specimens the pronotum is subquadrate (PW/PL 60/53), whereas in *K. ustulatus* specimens the pronotum is more distinctly transverse (PW/PL 80/65). Also, in *K. pelidnus* the tegmen is lanceolate, whereas in *K. ustulatus* it is more rectangular.

#### Description

**Size.** – Length 3.2 mm. – Width 1.2 mm.

**Form** (Fig. 24).

**Color.** – *Mouthparts*, *antenna*, and *legs* testaceous. – *Cranium*, *thorax*, *elytra*, and *abdomen* black. – *Elytra* with a slight bluish sheen.

**Head.** – *Cranium* coarsely punctate, interstitial spaces smooth and shiny. – Antennal capitulum lax, funicular antennomeres become progressively more subquadrate, antennomeres 9 and 10 triangular, antennomere 11 oblong-ovoid. – *Eyes* shallow, much narrower than frons (EW/FW 10/25).

**Thorax.** – Pronotal side margins serrulate, disc transverse (PW/PL 80/65), coarsely punctate throughout disc, with posterolateral angle. – *Elytral punctation* arranged into 10 striae, punctation diminish in size towards elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold serrulate, epipleural margin ends near distal 3/4<sup>th</sup>, remainder of elytral margin serrulate (EL/EW 135/45).

**Abdomen.** – *Pygidium* scutiform, *aedeagus* as in Fig. 38. – *Phallus* lanceolate, with a sclerotized ring around the base of tegmen. – Posterior angle of spicular plate prolonged and acuminate.

**Variations.** – Size: Length 2.5-4.0 mm; width 1.0-1.7 mm. Other than body size, the beetles before me are quite homogeneous.

**Natural History.** – Specimens have been collected in January, February, April, and May, at 300-850 m; most with a light trap.

**Distribution** (Fig. 44). – Known from Namibia and The Republic of South Africa.

**Etymology.** – The specific epithet, *pelidnus*, (= black & blue) is a Greek name that refers to the color of the elytral disc.

#### *Korynetes peliosus* Opitz n. sp.

(Fig. 25, 39, 44)

ZooBank : <http://zoobank.org/265ED881-17D1-4D69-B48C-2E5372B15384>

**Holotype.** ♂. South Africa, Limpopo Prov., Little Muck, Venetia, 22°15'S – 29°16'E. A second label reads: 8-9-12-2008, at light, Ruth Müller (TMSA).

**Diagnosis.** – The combination of small size (3.0 mm) and dark blue body color of these beetles will distinguish them from congeners.

#### Description

**Size.** – Length 3.0 mm. – Width 1.4 mm.

**Form** (Fig. 25).

**Color.** – *Mouthparts*, *antenna*, and *legs* testaceous. – *Cranium*, *prothorax*, *elytra*, dark blue. – *Pterothorax* and *abdomen* black.

**Head.** – *Cranium* coarsely punctate; antennal capitulum lax, funicular antennomeres become progressively shorter to capitulum, antennomeres 9 and 10 triangular, antennomere 11 oblong, truncate. – *Eyes* considerably convex, narrower than frons (EW/FW 15/25).

**Thorax.** – Pronotal side margins serrulate, disc transverse (PW/PL 62/52), coarsely punctate throughout disc, with posterolateral angle. – *Elytral punctation* arranged into 10 striae, punctation extends to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin ends at about distal 3/4<sup>th</sup>, remainder of elytral margin not serrulate (EL/EW 130/45).

**Abdomen.** – *Pygidium* scutiform, *aedeagus* as in Fig. 39. – Base of tegmen with sclerotized ring, tegmen constricted at middle.

**Natural History.** – The holotype was collected during December, at light.

**Distribution** (Fig. 44). – Known from the Republic of South Africa.

**Etymology.** – The specific epithet, *peliosus*, is a Greek name that stems from *pelios* (= black & blue). I refer to the color of the dorsum of these beetles.

#### *Korynetes procerus* Opitz n. sp.

(Fig. 26, 40, 44)

ZooBank : <http://zoobank.org/19958F04-E606-447B-993C-769FFB19C474>

**Holotype.** ♂. BELGIAN CONGO (= Democratic Republic of the Congo), 18 m. SW of Elizabethville, 1928, Dr. H. S. Evans. A second label reads: Pres. By Imp. Inst. Ent. B. M. 1933-451 (BMNH).

**Diagnosis.** – The narrow-oblong body form (Fig. 26) will distinguish the members of this species from congeners.

#### Description

**Size.** – Length 4.0 mm. – Width 1.0 mm.

**Form** (Fig. 26).

**Color.** – *Mouthparts*, *antenna*, and *legs* dark brown. – *Cranium* and *elytra* black, with bluish luster. – *Venter* and *abdomen* black.

**Head.** – *Cranium* coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively shorter towards capitulum, antennomeres 9 and 10 triangular, antennomere 11 ovoid. – *Eyes* shallow, much narrower than frons (EW/FW 8/40).

**Thorax.** – Pronotal side margins slightly serrulate, disc slightly transverse (PW/PL 68/63), coarsely punctate throughout disc, with feebly developed posterolateral angle. – *Elytral punctation* arranged into 9 striae, punctation extends to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold not serrulate, epipleural margin narrows to elytral apex (EL/EW 175/37).

**Abdomen.** – *Pygidium* transverse/scutiform, *aedeagus* as in Fig. 40. – Phallic apex broad triangular. – Posterior angle of spicular plate prolonged.

**Natural History.** – The available specimens were collected by beating, during December.

**Distribution** (Fig. 44). – Known from the Democratic Republic of the Congo.

**Etymology.** – The specific epithet, *procerus*, is a Latin name derived with a meaning of “long”. I refer to the oblong, narrow body form of this beetle.



Fig. 25-28. - Habitus of *Korynetes* species. - 25 : *K. peliosus* n. sp. - 26 : *K. procerus* n. sp. - 27 : *K. serratus* n. sp. - 28 : *K. ustulatus* n. sp.

***Korynetes serratus* Opitz n. sp.**

(Fig. 27, 41, 44)

ZooBank : <http://zoobank.org/1B822574-10FD-41FD-8B6F-C10E7670752E>**Holotype.** ♂. S. AFRICA, TVL, 25 km W Pretoria, 23-29.X. 1984, H. & A. Howden (CMNC)**Paratypes.** Two specimens:

– South Africa, Transvaal, 25 km W Pretoria, 23-29.X.1984, H. &amp; A. Howden (TMSA, 1; WOPC, 1)

**Diagnosis.** – The genus *Korynetes* was revised in 2015 (Opitz, 2015). This work included a key to species. *Korynetes serratus* specimens key out to *K. latipennis* Pic, from which *K. serratus* specimens differ by showing phallic plates that are partially serrate and they show a slenderer body form**Description****Size.** – Length 5.5 mm. – Width 2.4 mm.**Form** (Fig. 27).**Color.** – Mouthparts, antenna, and legs testaceous. – Cranium, thorax, elytra, and abdomen black, except abdominal apex testaceous.**Head.** – Cranium coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively shorter to capitulum, antennomeres 9 and 10 triangular, antennomere 11 ovoid. – Eyes shallow, much narrower than frons (EW/FW 20/47).**Thorax.** – Pronotal side margins serrulate, disc transverse (PW/PL 104/90), coarsely punctate throughout disc, with posterolateral angle. – Elytral punctation arranged into 12 striae, punctation extends to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold serrulate, epipleural margin ends just before elytral apex (EL/EW 240/70).**Abdomen.** – Pygidium scutiform, aedeagus as in Fig. 41. – Phallic plates broad and partly serrate.**Variations.** – The available specimens are quite homogeneous.**Natural History.** – The available specimens were collected during October.**Distribution** (Fig. 44). – Known from the Republic of South Africa.**Etymology.** – The specific epithet, *serratus*, is a Latin name with a meaning of “toothed like a saw”. I refer to the partly serrated condition of the phallic plates.***Korynetes ustulatus* Opitz n. sp.**

(Fig. 28, 44)

ZooBank : <http://zoobank.org/235C4142-4F3B-4A5E-826E-18B5FB7211AE>**Holotype.** ♀. Namibia: 1820 m, Namibgrens farm, 23°37'S – 26°14'E. A second label reads: 4-5.2.2010; E-Y: 3856, at light, leg. Ruth Müller (TMSA).**Paratypes.** Thirteen specimens:**Namibia**

– Namibgrens farm, 23°37'S – 26°14'E, 4-5-II-2010, 1820 m, at light, Ruth Müller (TMSA, 5; SDEI, 1; WOPC, 2)

– 15 km E Helmringhausen, 25°54'S – 16°39'E, 17-II-2010, 1560 m, at light, Ruth Müller (TMSA, 1; WOPC, 1)

– Orumpembe, 18°11'S – 12°33'E, 14-IV-2005, 677 m, light trap, Ruth Müller (TMSA, 1).

**Tanzania**

– Ruvuma Prov., 50 km S Songea, ?-XI-1993, Werner (RGCG, 1).

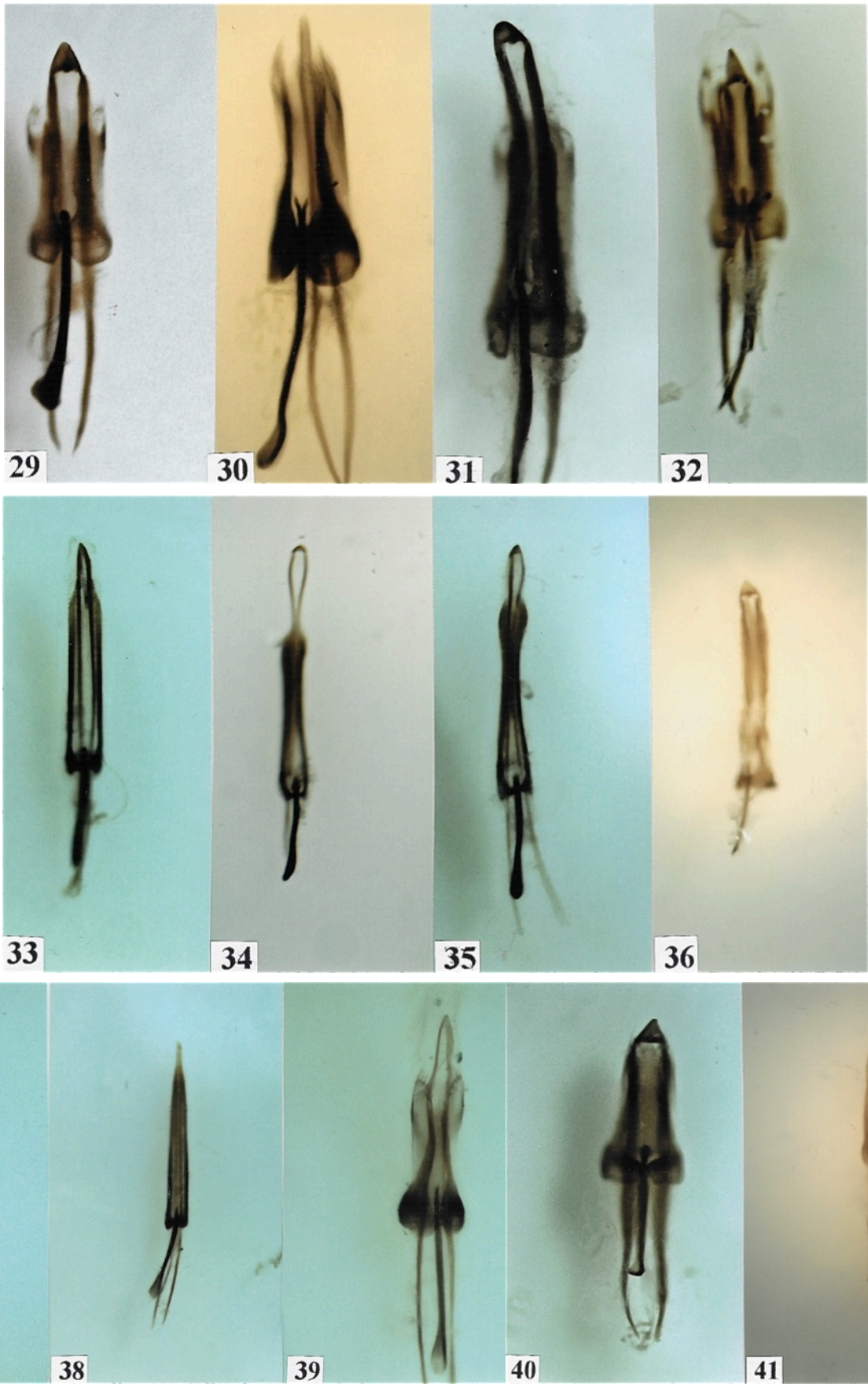
**Zambia**

– NW, E of Chisasa, W of Solwezi, 24-X-2008, Snižek (WOPC, 1).

**Diagnosis.** – The combination of small size (4.0 mm) and dark brown coloration of the members of this species will distinguish them from congeners.**Description****Size.** – Length 4.0 mm. – Width 1.5 mm.**Form** (Fig. 28).**Color.** – Mouthparts, antennae, legs testaceous. – Cranium, thorax, elytra, and abdomen dark brown.**Head.** – Cranium coarsely punctate. – Antennal capitulum lax, funicular antennomeres become progressively more transverse towards capitulum, antennomeres 9 and 10 triangular, antennomere 11 oblong-truncate. – Eyes particularly convex, narrower than frons (EW/FW 15/32).**Thorax.** – Pronotal side margins serrulate, disc transverse (PW/PL 75/65), coarsely punctate throughout, with posterolateral angle. – Elytral punctation arranged into 10 striae, punctation extend to elytral apex, elytral interstitial spaces smooth and shiny, upper margin of epipleural fold finely serrulate, epipleural margin ends at about distal 3/4<sup>th</sup>, remainder of elytral margin serrulate (EL/EW 185/60).**Abdomen.** – Pygidium scutiform.**Natural History.** – Specimens were collected during February, April, October, and November, at light, and at an altitude that ranges from 667 to 1820 m.**Distribution** (Fig. 44). – Known from Namibia, Tanzania, and Zambia.**Etymology.** – The specific epithet, *ustulatus*, (= browned) is a Latin adjective. I refer to the body color of these beetles.**Discussion**Morphologic evidence suggests that these beetles are carnivorous. The methods by which they were collected indicates predatory activity among tree branches and flowering plants. It is possible that they also imbibe nectar from flowering plants. The use of flower nectar as a source of moisture and nutrition among checkered beetles was documented by Opitz (2002). Moreover, their small size suggests that they consume very small insects. The prey-size choices in the Cleridae, as a limiting factor in predatory feeding, was studied by Ekis (now Opitz), 1977. Specimens were collected on the flowers of the butterfly bush [*Buddleia* Linnaeus (Scrophulariaceae)], by beating branches of *Acacia* Miller (Fabaceae), in a flight intercept trap, and in a light trap. Altitudinally, these beetles were collected from 677 to 1820 m.**Acknowledgments**

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**Fig. 29-41.** - Aedeagi of *Nolafigura* and *Korynetes* species. - 29 : *Nolafigura coachei* n. sp. - 30 : *Korynetes apiculus* n. sp. - 31 : *K. bifidus* n. sp. - 32 : *K. clavulus* n. sp. - 33 : *K. divulgatus* n. sp. - 34 : *K. kruger* n. sp. - 35 : *K. ligulus* n. sp. - 36 : *K. luminosus* n. sp. - 37 : *K. nigratarsus* n. sp. - 38 : *K. pelidnus* n. sp. - 39 : *K. peliosus* n. sp. - 40 : *K. procerus* n. sp. - 41 : *K. serratus* n. sp.

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## Résumé

Opitz W., 2018. – Systématique, biologie, et évolution des Korynetinae (Coleoptera: Cleridae). Part IV. Un nouveau genre *Nolafigura* Opitz, et quatorze nouveaux *Korynetes* Herbst. *Faunitaxys*, 6(12) : 1 – 17.

Ce travail présente l'établissement du genre *Nolafigura* Opitz **n. gen.**, la description de son espèce type *N. coachei* Opitz **n. sp.** et la description de quatorze nouvelles espèces du genre *Korynetes* Herbst: *K. apiculus* Opitz, *K. bifidus* Opitz, *K. clavulus* Opitz, *K. divilgatus* Opitz, *K. fuscopedis* Opitz, *K. kruger* Opitz, *K. ligulus* Opitz, *K. luminosus* Opitz, *K. morulus* Opitz, *K. pelidnus* Opitz, *K. peliosus* Opitz, *K. procerus* Opitz, *K. serratus* Opitz, et *K. ustulatus* Opitz. En outre, une désignation de lectotype et une nouvelle description sont fournies pour *K. nigratarsis* Pic. Ce travail comprend 12 micrographies électroniques, 16 photographies d'habitats, 13 photographies d'organes génitaux et 3 cartes de répartition. Pour faciliter l'identification des nouveaux taxons décrits ici, les nouveaux noms sont associés aux genres et espèces décrits précédemment.

Mots-clés. – Coleoptera, Cleridae, Korynetinae, *Nolafigura*, *Korynetes*, Taxonomy, nouveau genre, nouvelle espèce, Sénégal, Bénin, Congo, Tanzanie, Zambie, Afrique du Sud, Namibie.

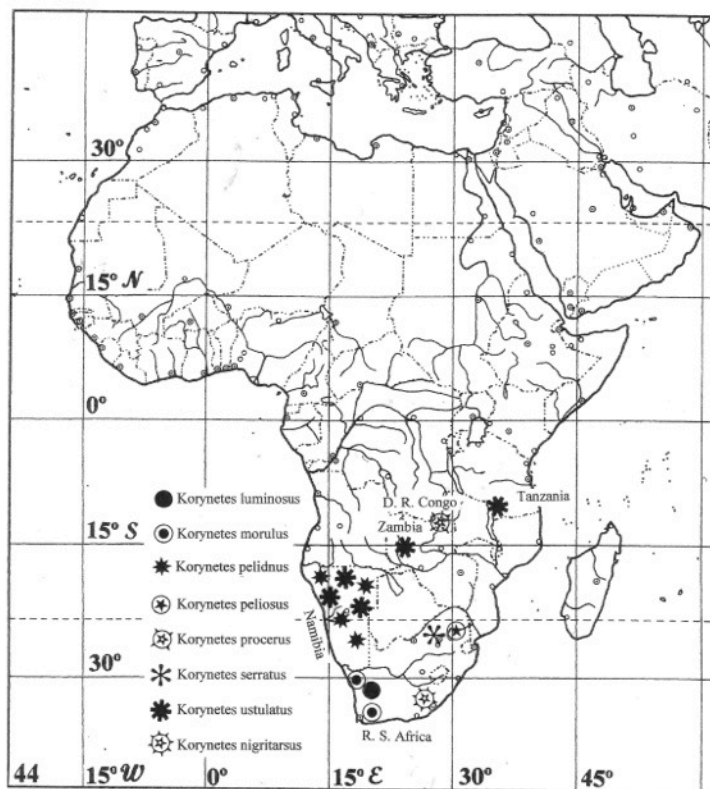
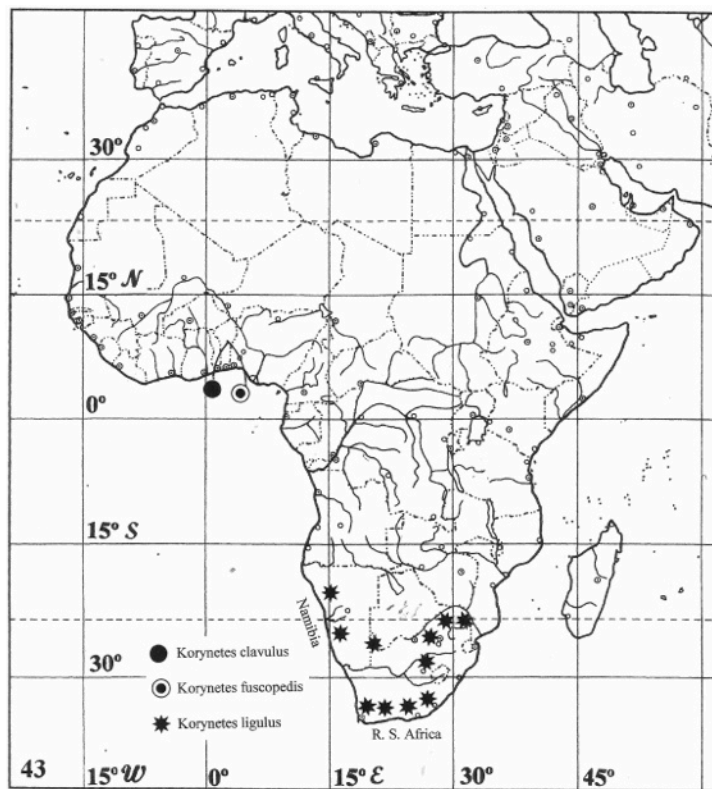
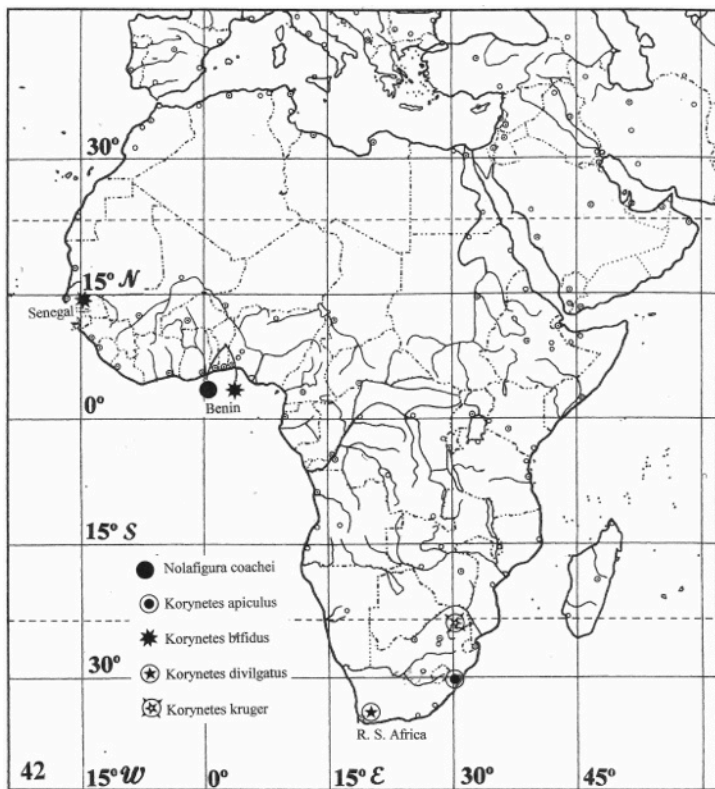


Fig. 42-44. - Approximate distribution of *Nolafigura* and *Korynetes* species as noted.

# Faunitaxys

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## SOMMAIRE

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**Illustration de la couverture**: Termitière, Forêt de Niaouli, Attogon, Bénin (03 V 2013, Alain Coache).  
Biotope de collecte de *Nolafigura coachei* Opitz **n. gen., n. sp.**

**Cover illustration**: Termitary, Forest of Niaouli, Attogon, Benin (03 V 2013, Alain Coache).  
Collection place of *Nolafigura coachei* Opitz **n. gen., n. sp.**

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