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Monograph

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A monograph of Afrotropical and Mediterranean *Derelomus* Schoenherr, 1825 (Coleoptera: Curculionidae) with the descriptions of 14 new species

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Abstract. The species of the genus *Derelomus* Schoenherr, 1825 (Curculionidae: Curculioninae: Derelomini) from the Afrotropical (excluding Madagascar) and Mediterranean regions are here revised. In total, 32 valid species are recognized, including 14 described as new: *D. acuminatus* Haran sp. nov.; *D. baka* Haran sp. nov.; *D. brevis* Haran sp. nov.; *D. brunneus* Haran sp. nov.; *D. caldarai* Haran sp. nov.; *D. crypticus* Haran sp. nov.; *D. discus* Haran sp. nov.; *D. karooensis* Haran sp. nov.; *D. peglerae* Haran sp. nov.; *D. prochesi* Haran sp. nov.; *D. setifer* Haran sp. nov.; *D. strangulatus* Haran sp. nov.; *D. strelitziae* Haran sp. nov. and *D. trinotatus* Haran sp. nov. The following new synonymies are proposed: *D. pallidus* Hartmann, 1904 and *D. hartmanni* Klima, 1934 = *D. pallidus* Fåhraeus, 1844 syn. nov.; *D. rectirostris* Hustache, 1937 = *D. languidus* Fåhraeus, 1844 syn. nov.; *D. subcostatus* Boheman, 1844 = *D. chamaeropis* (Fabricius, 1798) syn. nov.; *D. kocheri* Hoffmann, 1957 = *D. piriformis* (Hoffamnn, 1938) syn. nov.; *D. auberti* Hustache, 1932 = *D. ephippiger* Gyllenhal, 1836 syn. nov and *Psilocaulus elatus* Richard, 1958 = *Derelomus costiger* Marshall, 1958 syn. nov. Morphological examination of specimens and molecular analyses enabled recognising four main species groups: the *D. signatus* Gyllenhal, 1836 group (eight species) associated with the inflorescences of species of *Vachellia* Wight & Arn. (Fabaceae), the *D. pallidus* Fåhraeus, 1844 group (three species) associated with Achariaceae and Ebenaceae, the *D. nigrovariegatus* Hustache, 1936 group (six species) associated with *Strelitzia* (Strelitziaceae) and *Phoenix reclinata* Jacq. (Arecaceae) and the *D. ephippiger* Gyllenhal, 1836 group (12 species) associated with male inflorescences of various palms (*Chamaerops* L., *Cocos* L.,

Phoenix L.; Arecaceae). A key and a description or redescription are provided for each species, with illustrations of habitus of adults and male terminalia.

Keywords. Brood site pollination mutualism, derelomine flower weevils, new weevil species, new plant-weevil interactions.

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Introduction

The tribe Derelomini Lacordaire, 1866 (Curculionidae: Curculioninae) is a predominately tropical weevil lineage that is increasingly studied due to the implication of many species in brood site pollination mutualism with various plant lineages (Dufaÿ *et al.* 2002; Franz & Valente 2005; Franz 2007a, 2007b; Haran *et al.* 2022a). In these systems – referred to as ciophilous (Hsiao *et al.* 2023) – plants host the larvae of their specialist weevils, which in return pollinate them in their adult stage by flying between and visiting flowers in search of breeding sites (Sakai 2002; Haran *et al.* 2023a). To provide the taxonomic foundations necessary for understanding the level of host-specificity and evolutionary processes driving this type of specialised plant-insect interactions, several taxonomic works have been conducted over the last decades (Franz 2001, 2003; Franz & O'Brien 2001a, 2001b; Haran *et al.* 2020, 2022b). The concept of the tribe itself, however, remains debated, due to strong morphological convergence in habitus associated with the flower-visiting behaviour and the lack of stable morphological features to define it (Franz 2006; Caldara *et al.* 2014). Based on morphological investigations, Franz (2006) proposed a very wide concept of the tribe, including Acalyptini Thomson, 1859 and all the eastern and western hemisphere genera historically recognized in it (Alonso-Zarazaga & Lyal 1999). This merged concept was not retained in Caldara *et al.* (2014), with Acalyptini and Derelomini being treated separately. Recent molecular investigations conducted at the scale of Curculioninae supported such a concept (in agreement with Kojima & Morimoto 2005) and also recovered the genera in Derelomini (sensu Caldara *et al.* 2014) forming at least four distinct lineages distributed in either of the two (eastern or western) hemispheres (Haran *et al.* 2023b: supporting information 1). In its current narrow concept (sensu Haran *et al.* 2023b; although not formally revised in this paper), the Derelomini is therefore a rather small lineage restricted to the eastern hemisphere and including at least the genera *Derelomus* Schoenherr, 1825, *Ebenacobius* Haran, 2022, *Elaeidobius* Kuschel, 1952 and *Prosoestus* Faust, 1899 (Haran *et al.* 2022b), with the formal placement of the genera *Adisius* Fairmaire, 1903, *Lomederus* Marshall, 1932 and *Psilocaulus* Fairmaire, 1901 being unresolved yet. Following the revision of several of these genera (Haran *et al.* 2020, 2022b), the present study focuses on the genus *Derelomus*, the most species-rich in the tribe.

The genus *Derelomus* was introduced by Schoenherr for *Curculio chamaeropis* Fabricius, 1798, a species distributed in the western part of the Mediterranean region (Schoenherr 1825). In his review of the species in the genus – the only one conducted to date – Schoenherr (1844) then listed ten species:

D. avicularius Boheman, 1844; *D. chamaeropis* (Fabricius); *D. costalis* Fåhraeus, 1844; *D. ephippiger* Gyllenhal; *D. languidus* Fåhraeus, 1844; *D. pallidus* Fåhraeus, 1844; *D. plagiatus* Fåhraeus, 1844; *D. signatus* Gyllenhal, 1836; *D. subcostatus* Boheman, 1844 and *D. suturalis* Boheman, 1844. After this work, a number of species from the Neo- and Paleotropics were described (Hartmann 1904; Marshall 1928, 1935, 1950, 1958; Hesse 1929; Voss 1932; Hustache, 1932, 1933, 1936, 1937, 1939; Hoffmann 1938a, 1968; Bondar 1941; Roudier 1957; Morimoto 1959; Rheinheimer 2005; Alziar 2007; not an exhaustive list) within a context of a poor definition of the genus boundaries. All species from the Neotropics were later transferred to distinct genera (*Andranthobius* Kuschel, 1952; *Diplothemiobius* Kuschel, 1952, *Phyllotrox* Schoenherr, 1843 and *Pygoceletes* Kuschel, 1955). More recently, several paleotropical species formerly placed in *Derelomus* were transferred to the genera *Elaeidobius* Kuschel, 1952 (Haran *et al.* 2020) and *Ebenacobius* Haran, 2022. In addition, the genus *Neoderelomus* Hoffmann, 1938 (replacement name for *Pseudoderelomus* Hoffmann, 1938 – preoccupied) was set in synonymy with *Derelomus* Schoenherr (Franz 2006). Finally, a fossil from Dominican amber, *Derelomus thalioculus* Poinar & Legalov, 2015, was also described in this genus (Poinar & Legalov 2015). As a result of these descriptions and nomenclatural changes, the genus *Derelomus* in its current concept is restricted to the eastern hemisphere (except for *Derelomus thalioculus*) and contains about 37 species names, mostly distributed in the Afrotropical region.

Derelomus species have been generally reported as predominantly associated with the inflorescences of palms (Arecaceae; Lepesme 1947; Anstett 1999; Piry & Gompel 2002; Franz & Valente 2005; Alziar 2007), although the exact hosts of the majority of species are unknown. The species *Derelomus chamaeropis* and its specialised pollination interaction with *Chamaerops humilis* L. has been best studied (Anstett 1999; Dufaÿ *et al.* 2004). There is some evidence that several species in the genus secondarily shifted to other monocots (Strelitziaceae) but also dicots (Anacardiaceae, Ebenaceae, Fabaceae) (Haran *et al.* 2022a). A description of larvae is available for *D. piriformis* Hoffmann, 1938 (Piry & Gompel 2002).

Except for a few species from southern Europe, species identification is currently impossible without examination of the type material (Colonnelli 2014): 1) the genus has never been revised, 2) most species lack accurate description and diagnosis from closely related species, often forming species complexes (as in *Elaeidobius*; Haran *et al.* 2021) and 3) species can show a significant level of intraspecific variability regarding elytral pattern or sculpture (Alziar 2007). In addition, species can be easily transported out of their native range with the trade of their host plants (Piry & Gompel 2002), but not detected as such, leading to confusion in a number of reference collections. In this study, the species from the Afrotropical and Mediterranean regions are revised. All previously described species from these regions are redescribed, new species are described and an update on life history and distribution data available is provided. Molecular analyses are also carried out on a multimarker molecular dataset encompassing more than 80 specimens of *Derelomus* with the aim of reconstructing their evolutionary history and assessing species boundaries through molecular species delimitation analyses.

Material and methods

Sampling

Type specimens, identified and unidentified material of *Derelomus* were borrowed from museums and private collections (see section Abbreviations of repositories below). Specimen sampling was expanded with fresh material collected during field trips in various African and European countries. Adults were collected by beating inflorescences of palms (Arecaceae) and larvae were searched in flowers or tissues of inflorescences. Inflorescences of other plant lineages were also investigated because adults can visit non-host flowers but also because ancient host-shifts on non-palm plants have been inferred in Derelomini in general (Haran *et al.* 2022b). Mercury vapour or LED-based (LepiLED) UVs light traps set on the

ground or over the canopy were also opportunistically used to sample species active at night. After collection, specimens were transferred to 96% ethanol and stored at room temperature. This study covers species from the Afrotropical and Mediterranean regions, including the Arabian Peninsula, the Canarian and Cabo Verde archipelagos, the Comoros, Mayotte and Reunion islands, but excluding Madagascar, the latter hosting a divergent and not fully described fauna (Hustache 1933), that will be treated in a future study. In total, about 1150 specimens from the study area were examined.

Preparation and taxonomic treatment

Abdomens of adults were dissected and digested in KOH to obtain clean preparations of genital structures, which are informative to distinguish between species among Derelomini (Haran *et al.* 2022b). The elytro-tergal stridulation system in *Derelomus* is of type II (tergite VII with rows of granules in males; Lyal & King 1996), it forms a stridulatory plate on which the sculpture and arrangement of granules can be used as diagnostic features for some species. The length of lines of granules refers to the length between the most basal and the most apical granule (Fig. 1E). The parameral lobes of male terminalia and the female terminalia (spermatheca and apodeme) are either hardly accessible and fragile or not informative between most species and were thus not used in this study. Habitus and genitalia were photographed using a Keyence® VHX5000 imaging system. Measurements were taken with an optical micrometre and follow Haran *et al.* (2022a). Body length refers to the distance from the apical margin of the head (excluding the rostrum) to the apex of the elytra (Fig. 1A). Rostrum length refers to the distance between the apical margin of the eyes and the apex of mandibles in lateral and dorsal views (Fig. 1B). Rostrum length in dorsal view was measured with a proper orientation, i.e., in a horizontal position under the microscope. The ratio of width to length (W : L ratio) was measured at the widest point of the pronotum, the elytra and the penis (Fig. 1D). The length of the elytra was measured between the anterior part of the scutellar shield and the apex of the elytra (Fig. 1A). The interstriae are counted from the elytral suture and include the sutural interstriae. The diameter of punctures of elytral striae is measured based on the sculpture of the surface of the integument and does not refer to the darker disc around each puncture that sometimes appears by translucency in *Derelomus*. Many species in this genus are distinctly dimorphic, with the males exhibiting comparatively wide elytra, with the 5th interstriae costate and 9th interstriae enlarged and expanding over the 10th, the latter being invisible laterally. These features are, however, very variable at the intraspecific level and males with these features often coexist with minor males lacking specific elytral structure. Elytral sculpture in males was therefore not used for species diagnosis. The length of the penis was measured between the base of the penis body (apodemes excluded) and the apex (Fig. 1D). The terminology used follows Lyal (2020).

Derelomini are taxonomically challenging (Franz 2006), and species in the genus *Derelomus* in particular exhibit very converging phenotypes whereas color patterns are often too variable to be used as a diagnostic feature (Alziar 2007). This revisionary work is based on an exhaustive examination of type material (all types seen or lost) and the complementary use of molecular data when fresh specimens were available (see section below) in order to stabilise species concepts. The type material of species from Asia (*D. bicarinatus* Marshall, 1928; *D. cervicalis* Marshall, 1928; *D. impressicollis* Voss, 1937; *D. nigriceps* Voss, 1953; *D. productus* Marshall, 1935; *D. testaceus* Voss, 1932; *D. uenoi* Morimoto, 1959) and Madagascar (*D. alpinus* Hustache, 1933; *D. costipennis* Hustache, 1933; *D. madagascariensis* Hustache, 1933; *D. sulcifrons* Hustache, 1933; *D. suturalis* Hustache, 1939; *D. uniformis* Hustache, 1933) were also verified to search for potential synonyms arising from widely distributed species. The original descriptions of *Derelomus* species are often superficial, not informative for such a complex group or only based on female specimens that lack useful diagnostic characters. A standardised redescription is provided for each species, with a specific focus on informative morphological features between species, as well as a brief discussion on species variability when relevant. A formal redescription of the genus is not provided, as it would require the examination of species from Asia and Madagascar. Label data of name-bearing types are reported verbatim, with consecutive lines separated by a semicolon and data from

a single label enclosed by double quotation marks. Additional information and interpretations appear between square brackets. The format of the label data of other specimens is standardised. The names of all new species introduced in this article are attributed to the first author (JMH), following Article 50.1 and Recommendation 50A of the Code (ICZN 1999).

It should be noted that a revision of eastern hemisphere Derelomini, including the genus *Derelomus*, was started more than a decade ago by the late Guillermo Kuschel (see postscript in Haran *et al.* 2020). Guillermo Kuschel borrowed many types, undertook dissections, started descriptions of new species and labelled specimens housed in several institutions. Unfortunately, he passed away before he could complete this work. Consequently, for several specimens, the dissected terminalia could not be located and many specimens were labelled in museum collections with preliminary in litteris names but without a corresponding description. In addition, based on a preliminary manuscript kindly transmitted by colleagues at NZAC (Rich Leschen and Samuel Brown), G. Kuschel planned to split the genus *Derelomus* into several new genera, based on the appendiculate condition of the claws. These splits are not supported based on the preliminary phylogenetic reconstruction of the genus (Haran *et al.* 2022a), and this feature obviously appeared independently in several lineages. The proposed names are therefore not relevant, and all preliminary labels made by Kuschel for *Derelomus* from the eastern hemisphere have not been taken into account (all labels replaced) in order to avoid the introduction of invalid in litteris names.

DNA extraction and sequencing

For this study, 44 specimens (9 species of *Derelomus*) were newly sequenced for the standard DNA barcode region (mitochondrial cytochrome *c* oxidase subunit I: COI, Hebert *et al.* 2003). DNA was extracted from a leg, using a DNeasy Blood & Tissue Kit (QIAGEN, Hilden, Germany). PCR amplification was carried out using a mix of primers for amplification of COI (see primer details in Haran *et al.* 2022a). PCR reactions were carried out in a Mastercycler® Nexus (Eppendorf, Hamburg, Germany) in a final volume of 10 µL containing 5 µl of Multiplex PCR Master Mix (QIAGEN, Hilden, Germany), 2 µM of each primer and 2 µl of DNA template. The PCR conditions were as follows: initial DNA denaturation at 94°C for 15 minutes, followed by 35 cycles of 30 s at 94°C, 1 min at 52°C and 1 min at 72°C, with a final extension of 15 min at 72°C. The PCR products were paired-end sequenced by Eurofins Genomics (http://www.eurofinsgenomics.eu). All voucher specimens were mounted, dried and deposited at CBGP, Montpellier, France, in the CIRAD collection (https://doi.org/10.15454/D6XAKL) or in the institutions listed in sections Material examined for each species. Mesquite ver. 3.81 (Maddison & Maddison 2023) was used to check the coding frame for possible errors or stop codons. Uncorrected *p*-distance values of pairwise genetic distances between species were computed with Mega ver. 7 (Kumar *et al.* 2016). GenBank accessions of newly generated sequences are provided in the Appendix.

Molecular datasets

For the molecular phylogenetic analyses focusing on the evolutionary relationships of the genus *Derelomus*, we relied on a subset of the molecular dataset from Haran *et al.* (2022a), encompassing the following five gene fragments: a 658 bp region of the mitochondrial COI gene, a 707 bp region of the mitochondrial cytochrome *c* oxidase subunit II (COII) gene, a 1051 bp region of the mitochondrial large ribosomal RNA (16S) gene, a 517 bp region of the nuclear elongation factor-1 alpha (EF1a) gene and a 757 bp region of the nuclear arginine kinase (AK) gene. All mitochondrial and nuclear sequences were aligned using MAFFT ver. 7 (Katoh & Standley 2013) with default option settings and a gap opening penalty of 5.0, and further visually checked using Mesquite. Forty-two *Derelomus* specimens were extracted from this dataset along with the following derelomine species: *Andranthobius bondari* (Hustache, 1940), *Ebenacobius thoracicus* Haran, 2022, *Elaeidobius bilineatus* (Hustache, 1924), *Notolomus* cf. *basalis* and *Prosoestus minor* Marshall, 1935. This dataset was combined with the 44 newly generated COI sequences and with two sequences of *D. chamaeropis* available in GenBank

(accession numbers KC783895 and MK891322). The combination of all gene fragments resulted in a combined matrix of 90 specimens and 3,690 aligned characters. A supplementary molecular dataset grouping all *Derelomus* COI sequences (n = 75) was also further generated with Mesquite.

Molecular phylogenetic analyses

The phylogenetic analyses were carried out under maximum likelihood (ML) using IQ-TREE ver. 2.2.2.7 (Minh *et al.* 2020). The concatenated dataset was split into 13 partitions a priori, with three partitions (one per codon position) defined for each coding gene fragment (COI, COII, EF1a and AK) and one partition defined for the non-coding gene fragment (16S) while the COI dataset was split into three partitions (one per codon position). The Bayesian Information Criterion implemented in IQ-TREE through ModelFinder (Kalyaanamoorthy *et al*. 2017) was used to select best-fit substitution models and partition schemes.

For both datasets ML trees were obtained using heuristic searches with the following settings: parsimony-starting tree, hill-climbing nearest neighbor interchange (NNI) search (*-allnni* option), partition-resampling strategy (*--sampling GENE* option), best partition scheme allowing the merging of partitions (*-m MFP+MERGE* option) and a perturbation strength of 0.2 (*-pers 0.2*). Clade support for all analyses was assessed using 1,000 replicates for both SH-like approximate likelihood ratio tests (SH-aLRT; Guindon *et al*. 2010) and ultrafast bootstraps (uBV; Minh *et al.* 2013). According to the authors' recommendations, nodes with SH-aLRT values > 80% and uBV values ≥ 95% were considered highly supported.

Molecular species delimitation analyses

To better assess the reliability and repeatability of the proposed species delineations, four distinct molecular species delimitation (SD) approaches were implemented on the COI dataset.

First, two distance-based methods were used: the Automatic Barcode Gap Discovery (ABGD) model of Puillandre *et al.* (2012) and the Assemble Species by Automatic Partitioning (ASAP) model of Puillandre *et al.* (2021). ABGD analyses were performed on a dedicated web-server, using a relative gap width of 1.0, a standard Kimura 2-parameter model (K80) and both initial ('ABGDi') and recursive ('ABGDr') partitioning strategies (Puillandre *et al*. 2012). ASAP analyses were carried out on a dedicated web-server, using default settings and a K80 model (Puillandre *et al*. 2021). Although the ASAP approach is similar to ABGD, it includes a specific scoring system to identify the best-fitting set of putative species.

Second, two tree-based SD methods were carried out: the tree-based Poisson-tree-process (PTP) approach of Zhang *et al.* (2013) and the General Mixed Yule Coalescent (GMYC) model of Pons *et al.* (2006). Those SD methods were applied on the best-scoring ML COI tree. Analyses were carried out with default settings on a dedicated web-server (https://species.h-its.org/). For the PTP model, both the Bayesian implementation ('bPTP') and ML implementation ('PTP(ML)') of the model were used. For the GMYC model, both the default single threshold approach ('GMYCs') of Pons *et al.* (2006) and the more parameter-rich approach ('GMYCm') of Monaghan *et al.* (2009), which allows the use of multiple thresholds to account for the potential heterogeneity of evolutionary rates among lineages, were implemented. As input GMYC approaches require ultrametric trees (where all tips are equidistant from the root), which were generated using treePL (Smith & O'Meara 2012) with a smoothing value of 100 and a root age set to 23.3 million years ago (corresponding to the median age of the MRCA of *Derelomus* inferred by Haran *et al.* 2022a).

Depositories

ANIC	=	Australian National Insect Collection, Canberra, Australia
CBGP	=	Centre de Biologie pour la Gestion des Populations, Montpellier, France
CMNC	=	Canadian Museum of Nature, Ottawa, Canada
DM	=	Dominique Menet private collection, Longlaville, France
EL	=	Emmanuel Lemagnen private collection, Sainte-Marie, Reunion Island
MCZR	=	Museo Civico di Zoologia, Roma, Italy
MNHN	=	Muséum national d'Histoire naturelle, Paris, France
MTD	=	Museum für Tierkunde, Dresden, Germany
MZH	=	Finnish Museum of Natural History, Helsinki, Finland
NHMUK	=	Natural History Museum, London, United Kingdom
NHRS	=	Swedish Museum of Natural History, Stockholm, Sweden
NMB	=	Naturhistorisches Museum Basel, Switzerland
NZAC	=	New Zealand Arthropod Collection, Landcare Research, Auckland, New Zealand
PW	=	Patrick Weill private collection, Pau, France
RB	=	Roman Borovec private collection, Sloupno, Czech Republic
RMCA	=	Musée royal de l'Afrique centrale, Tervuren, Belgium
SAMC	=	Iziko South African Museum, Cape Town, Republic of South Africa
SANC	=	South African National Collection of Insects, Pretoria, Republic of South Africa
TMSA	=	Ditsong National Museum of Natural History, Pretoria, Republic of South Africa
USNM	=	National Museum of Natural History, Washington D.C., USA
ZFMK	=	Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany
ZMK	=	Zoological Museum of Kiel University, Kiel, Germany

Results

Taxonomy

Class Insecta Linnaeus, 1758
Order Coleoptera Linnaeus, 1758
Superfamily Curculionoidea Latreille, 1802
Family Curculionidae Latreille, 1802
Subfamily Curculioninae Latreille, 1802
Tribe Derelomini Lacordaire, 1866

Genus ***Derelomus*** Schoenherr, 1825

***Derelomus signatus* group**

Species in this group exhibit a more or less dense cover of white scales on the lateral carina of pronotum (Fig. 1C). Their body is slender, the pronotum at most slightly wider than long (W : L ratio generally < 1.30). The body of the penis is generally comparatively very long and apodemes very short (but see *D. caldarai* sp. nov. and *D. karooensis* sp. nov.). Eight species are recognized in this group, they are predominantly distributed in eastern and southern Africa, but one species extends to the Arabian Peninsula (*D. schoedli*) and one is found in North Cameroon, Cape Verde archipelago, Burkina Faso and Senegal (*D. lindbergi*). All species were collected on inflorescences of *Mimosa* L. and *Vachellia* Wight & Arn. (Fabaceae), which probably constitutes the host for larvae. This species group is likely more diverse than what is reported below. Several unique female specimens clearly belonging to new species were found in collections, but not described due to the lack of male or DNA grade material.

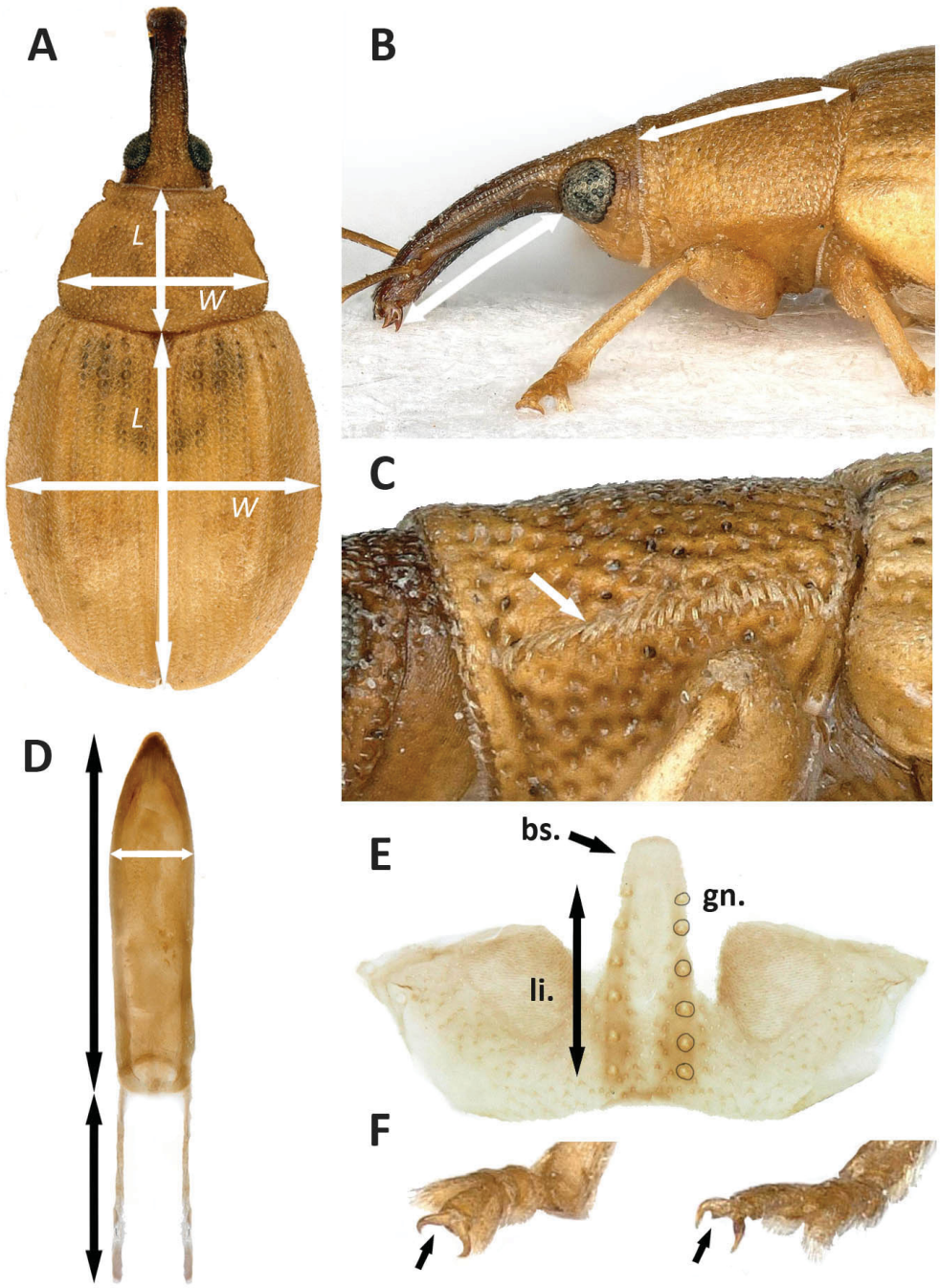


Fig. 1. Details of morphology and measurements of *Derelomus* Schoenherr, 1825. **A**. *Derelomus costiger* Marshall, 1958 in dorsal view, with the white arrows showing the measurements of width (*w*) and length (*L*) for the prothorax (top) and elytra (bottom). **B**. Same species in lateral view, with the white arrows showing where the length of the rostrum and prothorax were measured. **C**. Pronotum of *Derelomus acuminatus* sp. nov. with the white arrow showing the line of scales concealing the lateral carina. **D**. Penis in dorsal view of *Derelomus costiger* showing where measurements are made for the body of the penis (white arrow: width; top left black arrow: length) and the length of apodemes (bottom left black arrow). **E**. Stridulatory plate (tergite VII) of male of *Derelomus acuminatus*, showing the line of granules (gn.), the base of the central sclerotized area (bs.) and how its length is measured (li.). **F**. Tarsal claws showing the simple condition (left=*Derelomus bivirgatus* Marshall, 1951) and the claws appendiculate internally (right=*Derelomus schoedli* Rheinheimer, 2005). Figures not to scale.

Derelomus signatus Gyllenhal, 1836
Fig. 2

Derelomus signatus Gyllenhal, 1836: 630.

Derelomus signatus – Haran *et al*. 2022a (erroneous identification, see *D. schoedli*).

Diagnosis

Derelomus signatus can be distinguished by the combination of white scales on the lateral carina of the pronotum, the narrow pronotum (W : L ratio: 1.25), two transverse bands or lines of dark spots on the elytra and black club. It is closest to *D. abyssinicus*, but in the latter species the rostrum is almost straight in lateral view (Fig. 5B–C) and the elytra only exhibit one transverse dark band (Fig. 5A).

Material examined

Neotype (here designated)
ZAMBIA • ♂; "Zambia 1050m; Lukulu, Barotse Floodplain; S14°12′42″; E23°19′06″" "9.xi.13 Light trap; Leg. Smith, R., Takano, H.; & Oram, D." "BMNH(E); 2016-251" "NHMUK 010804484" "NEOTYPE; *Derelomus signatus*; Gyllenhal, 1836; Haran des. 2025"; NHMUK.

Other material
REPUBLIC OF SOUTH AFRICA – **KwaZulu-Natal Province** • 2 ♀♀; Gingindlovu; 29°1′8″ S, 31°35′14″ E; 22 May 1922; R.E. Turner coll. ; NHMUK • 1 ♀; Gingindlovu; 29°1′8″ S, 31°35′14″ E; 29 Apr. 1926; R.E. Turner coll.; NHMUK • 1 ♀; Gingindlovu; 29°1′8″ S, 31°35′14″ E; 9 Jun. 1926; R.E. Turner coll.; NHMUK • 1 ♀; Pondolandia Nature Reserve; 31°20′31″ S, 29°15′32″ E; 5–30 Apr. 1923; R.E. Turner coll.; NHMUK • 2 ♀♀; Malvern; 29°53′06″ S, 30°54′48″ E; Aug. 1897; G.A.K. Marshall coll.; NHMUK. – **Eastern Cape Province** • 1 ♀; Dwesa forest reserve; 32°18′15″ S, 28°49′34″ E; 11 Dec. 1979; Endrödy-Younga coll.; flowering *Acacia* [*Vachellia*] Mill.; E-Y: 1674; TMSA • 2 ♀♀; Somerset East [Kwanojoli]; 32°42′57″ S, 25°34′16″ E; 10–22 Dec. 1930; R.E. Turner coll.; NHMUK • 2 ♀♀; Katberg; 32°29′31″ S, 26°40′45″ E; 1–15 Jan. 1933; R.E. Turner coll.; NHMUK.

ETHIOPIA • 1 ♀; Mulu, above Muger Valley; 9°17′06″ N, 40°50′28″ E; 18–23 Nov. 1926; H. Scott coll.; circa 8000 ft; NHMUK.

KENYA • 2 ♀♀; 90 km from Nairobi (no precise locality); 26 Mar. 1990; D. Hongo coll.; adults collected on *Vachellia seyal* (Delile) P.J.H.Hurter; NHMUK • 1 ♀; 90 km from Nairobi (no precise locality); 22 Mar. 1990; D. Hongo coll.; adults collected on *Vachellia hockii* (De Wild.) Seigler & Ebinger; NHMUK.

Redescription (♂)

Measurements. Body length 2.5 mm.

Color. Body integument pale brown, head and pronotum darker, club black, elytra with two transverse oblique lines of dark spots on even interstriae; vestiture of dorsum made of white setiform scales, forming one row on each interstria, more visible on odd interstriae.

Head. Rostrum as long as pronotum in lateral view, moderately and regularly downcurved; in dorsal view 3× as long as wide, integument densely punctate, with 5 carinae, covered with short suberect whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, with contiguous suberect whitish scales forming two tufts near eyes; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2× as long as wide, equal in length to segments 2–4 together, 3–7 transverse.

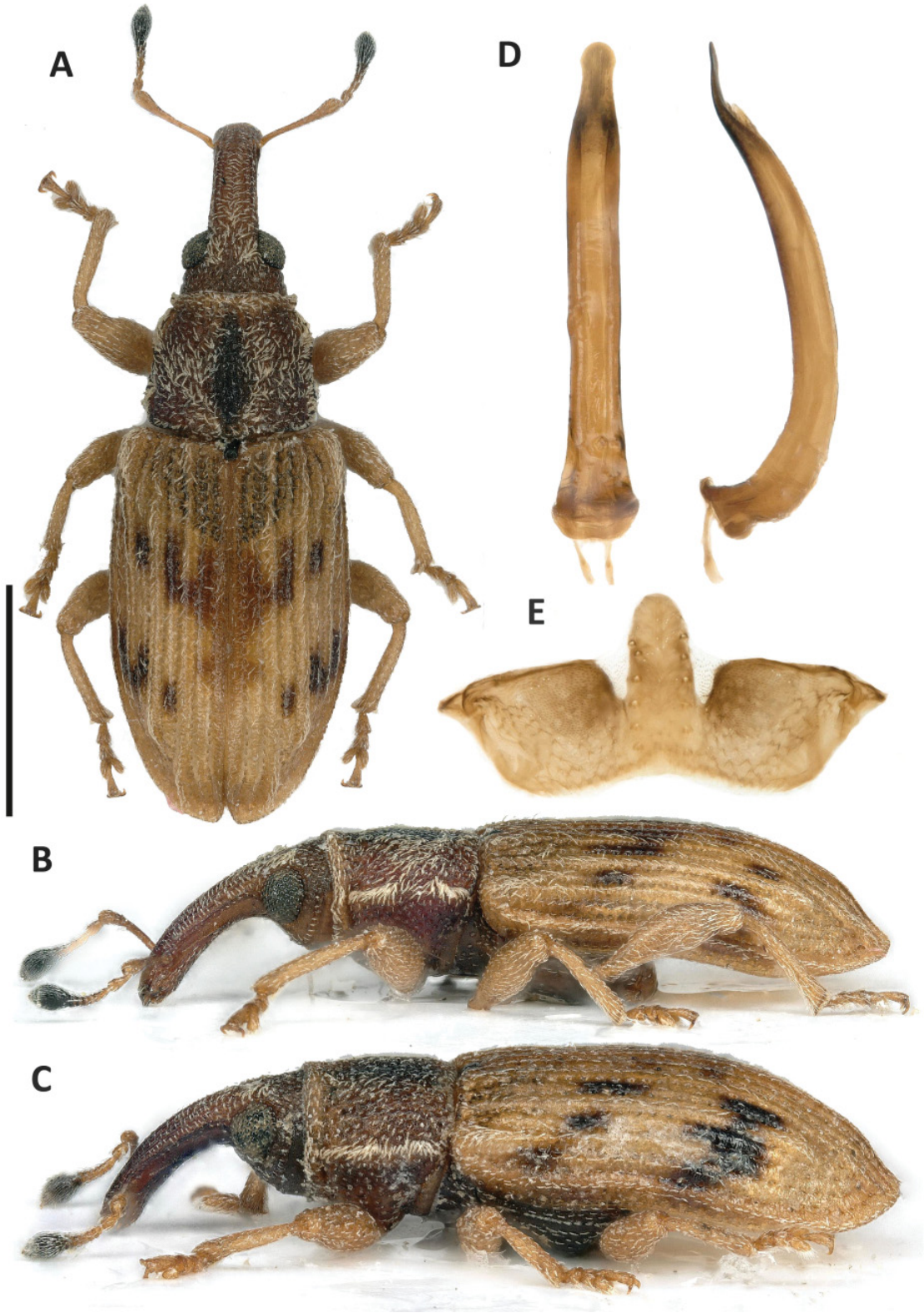


Fig. 2. Habitus of *Derelomus signatus* Gyllenhal, 1836. **A–B, D–E**. Neotype, ♂ (Zambia) (NHMUK 010804484). **C**. ♀ (Republic of South Africa) (NHMUK). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Pronotum. Wider than long (W : L ratio: 1.25), widest near base, 0.77 × as wide there as elytra at humeral angles, lateral carina forming obtuse angle beyond middle of length; sides abruptly converging in apical ⅕, apical constriction deep and visible; integument with large circular punctures, space between punctures dull, narrower than or as wide as diameter of punctures; setae recumbent, cover less dense near basal and apical margins and along median line.

Metathorax. Metanepisterna with scarce setiform scales.

Elytra. Elongate (W : L ratio: 0.62); sides subparallel in basal ⅔, widest near middle of length; humeri raised, with tuft of white setiform scale; apex jointly rounded, notched at apex of suture; striae with punctures narrower than interstriae; odd interstriae raised; scutellar shield rounded, black, glabrous.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 6 granules, 0.8 × as long as median line from base; central sclerotized area regularly rounded laterally.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws appendiculate.

Terminalia. Body of penis elongate (W : L ratio: 0.17); sides straight in dorsal view, widest at base, converging regularly apicad from apical ⅕ of length, apex forming a spatula; in lateral view curvature stronger in basal ½ of length, width narrowing regularly from middle of length to apex; apex curved upward; apodemes very short, less than 0.2 × the length of penis body (Fig. 2D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer and more downcurved in lateral view (Fig. 2C), and by their more convex elytra.

Variation

Scale cover and patterns on the elytra are variable in this species. In some specimens, the vestiture of the pronotum and elytra is very short and hardly visible. The dark apical band on the elytra may consist of a wide transverse band, only interrupted on the suture or only two dots on interstriae 4 and 7. All specimens examined show two transverse bands on each elytron, the one near the middle of the length, sometimes pale ocher, poorly contrasting with the rest of the integument. The condition of the appendiculate claws is seemingly variable in this species, this feature was not used for the diagnosis of this species.

Life history

Specimens were collected on *Vachellia hockii*, *V. seyal* and *Vachellia* sp. (Fabaceae) and using light traps. Adults were recorded from March to June and from November to December.

Distribution

Ethiopia, Kenya, Republic of South Africa (Eastern Cape and KwaZulu-Natal provinces) and Zambia.

Remarks

Despite intensive searches, we could not locate the type of *Derelomus signatus* Gyllenhal, 1836. It is absent from Schoenherr's and Chevrolat's collections housed at NHRS, while a label bearing this species name at the bottom of the boxes indicates that a specimen used to be located there. We also searched among the material borrowed by the late G. Kuschel from various institutions, without success. In addition, in a preliminary manuscript left by him, G. Kuschel stated that he did not examine the type of this species, suggesting that the specimen was unavailable when he undertook his work on this genus

(circa 2007). The original type is therefore considered as lost. In order to stabilise the nomenclature, and given the homogeneity of the *D. signatus* species group, a neotype is here designated (ICZN art. 75). The original description given by Gyllenhal provides diagnostic features: "[…] *rostrum capite dimidio longius, validum, valde arctuatum* [rostrum 1.5 × as long as head, stocky and strongly downcurved]. […] *Antennae testaceae, clava nigra* [antennae reddish brown, club black]. […] *sutura interstitiisque alternis paulo elevatioribus, laevibus;* […] *lineolis nonnullis brevibus, sparsis, brunneis, notata* [odd and sutural interstriae slightly raised, smooth; with few scattered brown spots]." In southern Africa where this species was described, these features apply only to one *Derelomus* morphospecies for which one male from Zambia and 16 females from Southern and Eastern Africa are available in the material examined. The male specimen of this series is designed as the neotype for the species name *Derelomus signatus* Gyllenhal, 1836 [here designated] and was labelled accordingly [deposited at NHMUK]. A redescription of this species is provided to report the diagnostic features with closely related species. Due to misidentifications in reference collections, the specimen included in Haran *et al.* (2022b) under the name *D. signatus* (JHAR01036) is in fact *D. schoedli* Rheinheimer, 2005.

Derelomus karooensis Haran sp. nov.
urn:lsid:zoobank.org:act:B88668D9-2A4C-49DD-9A26-C4B2B5C39AC2
Fig. 3

Diagnosis

Derelomus karooensis sp. nov. can be distinguished by the combination of white scales on the lateral carina of the pronotum, the distinctly transverse pronotum (W : L ratio: 1.33), two transverse bands or lines of dark spots on the elytra, a black club, and the comparatively short body of the penis (Fig. 3D). It is closest to *D. acuminatus* sp. nov., see key of species for diagnostic features. GenBank accession number for the corresponding DNA barcode: ON553427.

Etymology

The specific epithet refers to the area of origin of most of the studied specimens, the Karoo region in the Republic of South Africa.

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA • ♂; "Rep. of South Africa; WC. Pr. [Western Cape province], Groenfontein; Guest Farm, 16.i.2019; J. Haran coll." "JHAR02095-01; -33.448 21.793 [33°26′52.8″ S, 21°47′34.8″ E]; Light trap; Collection – Cirad" "HOLOTYPE ♂; *Derelomus karooensis*; Haran, 2025"; SAMC.

Paratypes

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 4 ♀♀; LittleKaroo, Raubenheimer dam; 33°24′57″ S, 22°18′58″ E; 30 Oct. 1993; Endrödy-Younga coll.; beating *Acacia* [*Vachellia*]; E-Y:2922; TMSA • 1 ♀; same collection data as for preceding; CBGP • 1 ♀; Mossel Bay; 34°12′04″ S, 22°05′57″ E; Jan. 1922; R.E. Turner coll.; NHMUK • 1 ♀; same locality as for preceding; Dec. 1921; R.E. Turner coll.; NHMUK. – **Eastern Cape Province** • 2 ♀♀; Baviaanskloof, near Patensie; 33°38′00″ S, 24°28′59″ E; 23 Nov. 1983; R. Oberprieler coll.; SANC • 1 ♀; Dunbrody; 33°28′12″ S, 25°32′46″ E; 19 Sep. 1900; NHMUK • 1 ♀; Dunbrody; 33°28′12″ S, 25°32′46″ E; 20 Dec. 1900; NHMUK • 1 ♀; Uitenhage; 33°45′36″ S, 25°21′30″ E; Oct. 1998; J. Onui (?); on *Mimosa* L.; NHMUK • 1 ♀; between Somerset East and Swaarshoek; 32°34′59″ S, 25°26′00″ E; 6 Feb. 1990; V.M. Uys coll.; SANC • 1 ♀; Somerset East; ; 32°43′48″ S, 25°35′10″ E; 1–26 Jan. 1931; R.E. Turner coll.; NHMUK.

Description (♂)

Measurements. Body length 2.5 mm.

Color. Body integument pale brown, club black, elytra with two transverse oblique dark bands forming an "X" near middle of length; vestiture of dorsum made of minute white setae, integument glabrous in appearance.

Head. Rostrum as long as pronotum in lateral view, downcurved near base, almost straight in apical ⅔; in dorsal view 2.5 × as long as wide, integument densely punctate, with 4 carinae, covered with short suberect whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, with suberect whitish scales forming two tufts near eyes oriented toward centre of forehead; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5 × as long as wide, equal in length to segments 2–3 together, 2 isodiametric, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.33), widest near apical ⅓, 0.77 × as wide there as elytra at humeral angles, lateral carina forming an obtuse angle at apical ⅓ of length; sides abruptly converging in apical ¼, apical constriction shallow; integument with large circular punctures, space between punctures dull, narrower than or as wide as diameter of punctures; cover denser along lateral carinae.

Metathorax. Metanepisterna with scarce setiform scales.

Elytra. Elongate (W : L ratio: 0.68); sides convex, widest near middle of length; humeri raised; apex jointly rounded; striae with punctures as wide as or slightly narrower than interstriae; interstriae slightly convex; scutellar shield rounded, black, glabrous.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.37), 1.2 × as long as apodemes; sides subparallel in dorsal view, widest at base, converging regularly apicad from apical ¼ of length, apex forming spatula; in lateral view curvature stronger in basal ½ of length, width narrowing regularly from middle of length to apex; apex curved upward (Fig. 3D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer and more downcurved in lateral view (Fig. 3C).

Life history

Adults were recorded on various species *Vachellia* (Fabaceae). The holotype was collected in the vicinity of blooming *Vachellia karroo* (Hayne) Banfi & Galasso. Adults were collected from October to February, they are attracted by light traps.

Distribution

Endemic to the Republic of South Africa, where it seems to be restricted to the Eastern and Western Cape provinces. Its putative host plant is widely distributed in Southern Africa.

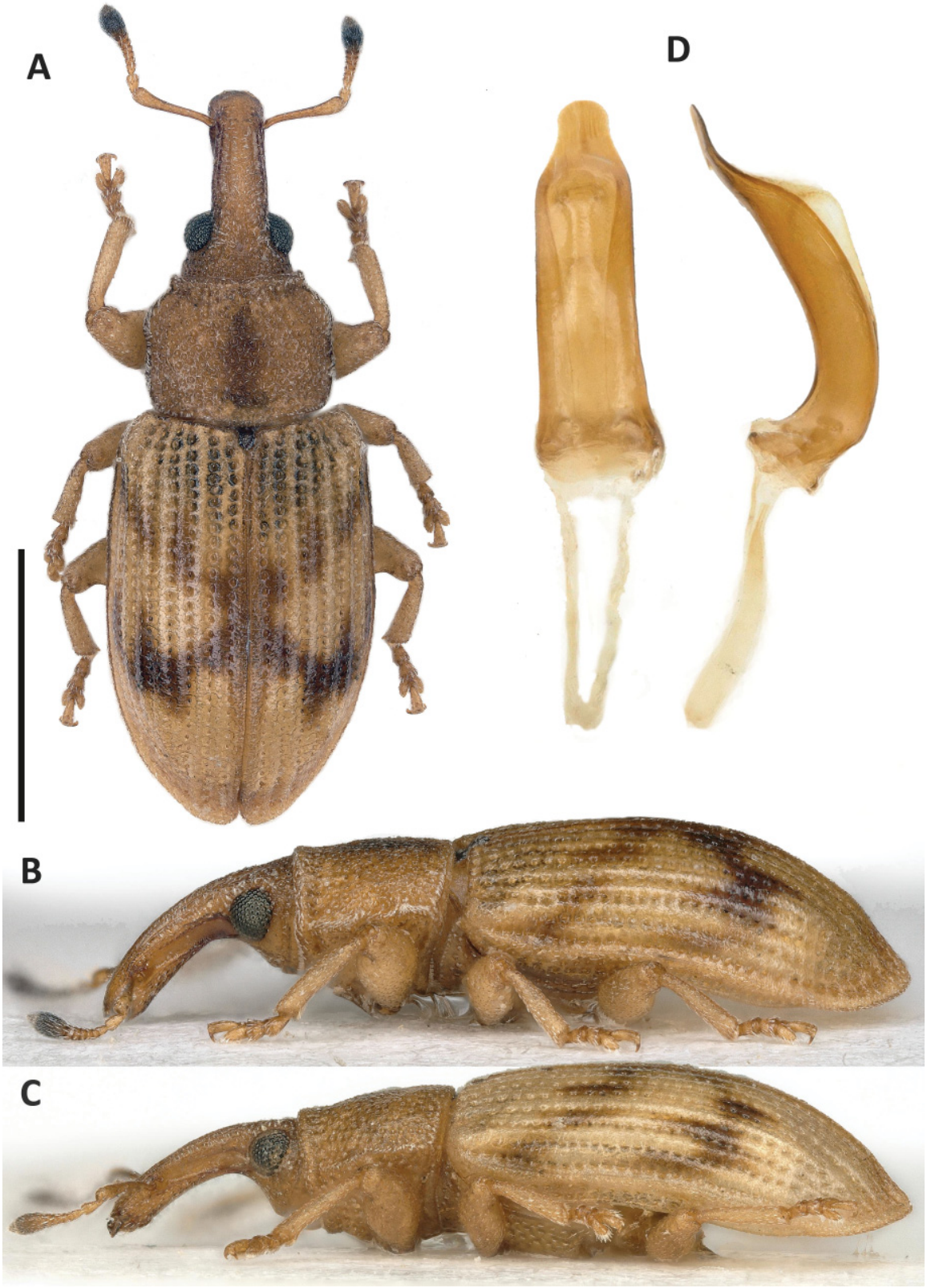


Fig. 3. Habitus of *Derelomus karooensis* Haran sp. nov. **A–B, D**. Holotype, ♂ (Groenfontein, Republic of South Africa) (SAMC). **C**. Paratype, ♀ (Raubenheimer dam, Republic of South Africa, E-Y: 2922; TMSA). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. Scale bar: A–C = 1 mm; D not to scale.

Remarks

The stridulatory plate of the unique male specimen available was damaged and could not be used in the description.

Derelomus acuminatus Haran sp. nov.
urn:lsid:zoobank.org:act:F2D084BF-7C2A-4B2A-A26B-0AEEBE07D843
Fig. 4

Diagnosis

Derelomus acuminatus can be distinguished by the combination of acuminate elytra, two transverse bands or lines of dark spots on the elytra and a distinctly downcurved rostrum in lateral view (Fig. 4B–C).

Etymology

The specific epithet refers to the acuminate shape of the elytra in this *Derelomus*, a unique feature in this genus.

Material examined

Holotype

KENYA • ♂; "KENYA; Naivasha [0°43′26.0″ S 36°25′14.8″ E]; 14.ix.1986" "Sp. 9.A; fm. Flwhds [female flowerheads]; of *Acacia* [*Vachellia*]" "*xanthoph-*; *loea*; CIE A1 8553" "Pres by; Comm Inst Ent; B.M.; 1987-1" "HOLOTYPE ♂; *Derelomus acuminatus*; Haran, 2025"; NHMUK.

Paratypes

ETHIOPIA • 1 ♀; Mulu, above Muger Valley; 9°17′06″ N, 40°50′28″ E; 18–23 Nov. 1926; H. Scott coll.; circa 8.000 ft; NHMUK.

KENYA • 1 ♂, 4 ♀♀; Naivasha; 0°42′53″ N, 36°25′23″ E; 14 Sep. 1986; Comm Inst Ent coll.; on female flowerheads of *Vachellia xanthophloea* (Benth.)Banfi & Galasso; CIE A1 8553; NHMUK • 1 ♂, 1 ♀; same collection data as for preceding; CBGP.

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 1 ♀; Cape Town; 33°57′00″ S, 18°34′41″ E; 1915 [?]; Péringey coll.; SAM-COL-A050323; SAMC.

Description (♂)

Measurements. Body length 2.6–2.8 mm.

Color. Body integument pale brown, club black, elytra with two transverse oblique lines, more or less contrasting dark bands, basal one extending from humeral angle to middle of suture, the apical one from the level of metafemora to apical ⅔ of suture, interrupted on suture, in some individuals apical band covering entire sides of apical ½ of elytra; vestiture of dorsum made of minute, recumbent white setae, forming one row per interstria.

Head. Rostrum slightly longer than in lateral view, more downcurved near base; in dorsal view 4× as long as wide, integument densely punctate, covered with short suberect whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, with minute whitish scales oriented toward centre of forehead; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5× as long as wide, equal in length to segments 2–3 together, 2 slightly longer than wide, 3–7 transverse.

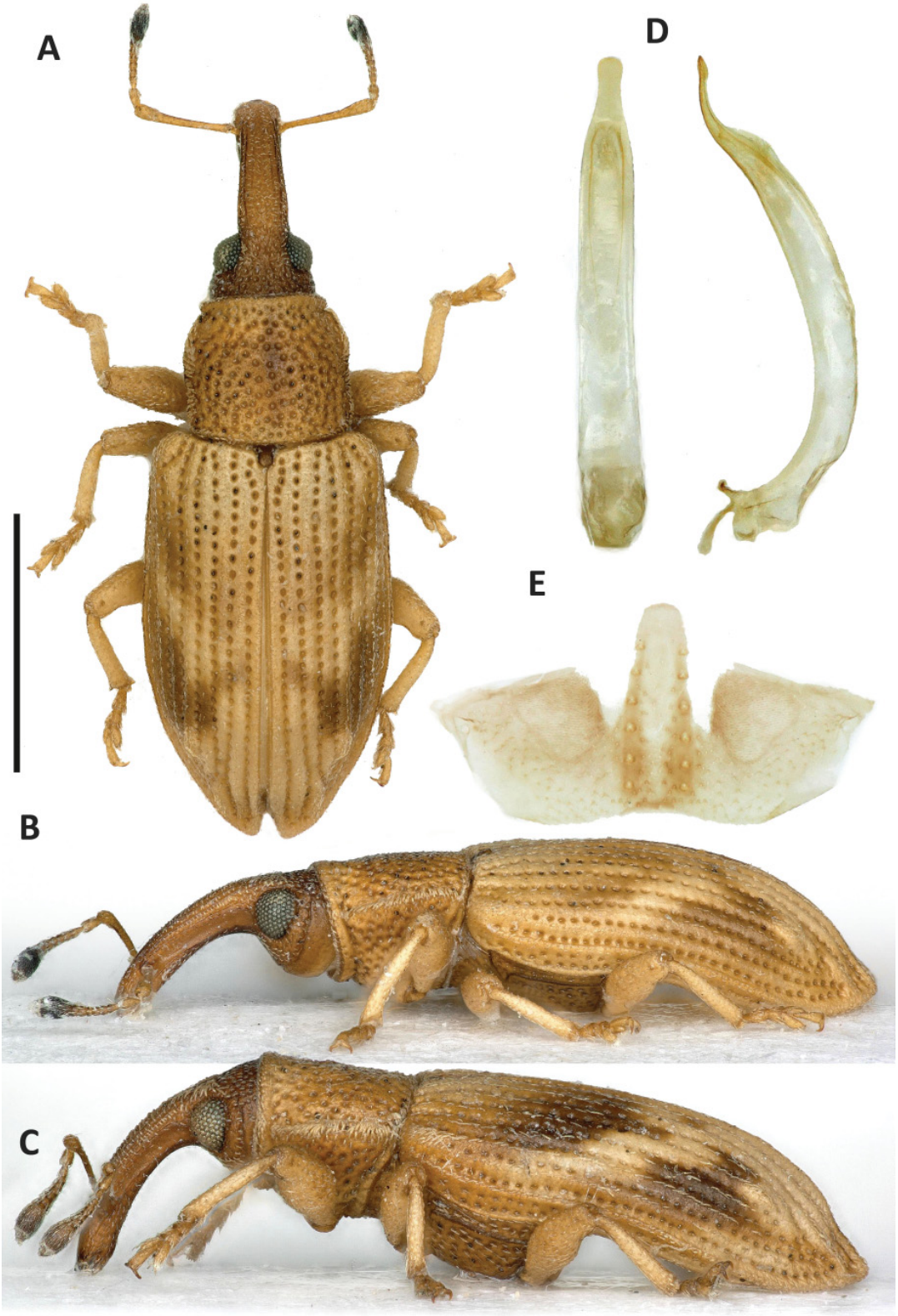


Fig. 4. Habitus of *Derelomus acuminatus* Haran sp. nov. **A–B, D–E**. Holotype, ♂ (Kenya) (NHMUK). **C**. Paratype, ♀ (same locality) (CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Pronotum. Isodiametric (W : L ratio: 1), widest near apical ⅓, 0.7 × as wide there as elytra at humeral angles, lateral carina forming an obtuse angle at apical ⅓ of length; sides abruptly converging in apical ⅓, apical constriction shallow; integument with large circular punctures, space between punctures micro reticulate, shiny, narrower or wider than diameter of punctures, each puncture with tiny whitish seta, lateral carina covered by dense strip of whitish, setiform scales.

Metathorax. Metanepisterna with minute seta, glabrous in appearance.

Elytra. Elongate (W : L ratio: 0.63); sides slightly convex, widest near middle of length; humeri raised; apex acuminate separately; striae with punctures as wide as or narrower than interstriae; interstriae slightly convex, interstriae 5 raised at apical ¾ of length; scutellar shield rounded, dark brown, integument glabrous, shiny.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 6 granules, ⅘ × as long as median line from base; central sclerotized area elongate, rounded at apex.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws simple.

Terminalia. Body of penis very elongate (W : L ratio: 0.13), about 10 × as long as apodemes, apodemes very short hidden by body of penis in lateral view; sides subparallel in dorsal view, widest near base, converging in apicad ⅕ of length, apex forming spatula; in lateral view curvature stronger in basal ½ of length, width narrowing regularly from apical ⅓ of length to apex; apex curved upward (Fig. 4D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer and more downcurved in lateral view (Fig. 4C).

Life history

This species was collected on female inflorescences of *Vachellia xanthophloea*. Adults were collected in September and October.

Distribution

Ethiopia, Kenya and the Republic of South Africa. The putative host plant is not native to the Republic of South Africa and *D. acuminatus* sp. nov. has probably been introduced there with this ornamental tree.

Derelomus abyssinicus Hustache, 1936
Fig. 5

Derelomus abyssinicus Hustache, 1936: 486.

Diagnosis

Derelomus abyssinicus can be distinguished by the combination of simple claws, a single transverse dark band on the elytra (rarely two, in 2% of specimens examined) and the lateral carina on the pronotum covered with whitish scales. Within the *D. signatus* group, this shows the straightest rostrum in lateral view (Fig. 5B–C).

Material examined

Lectotype (here designated)
ETHIOPIA • ♂; "TYPE[red label]" "Abyssinia; Doukham [Dukem, 8°48′48″ N 38°54′48″ E]; 6,500 to 7000 ft.; 18.x.1926; Dr. H. Scott." "From flowers; of Mimosa" "*Derelomus*; *abyssinicus*; m.[me]; Hustache det." "Lectotype ♂; *Derelomus abyssinicus*; Hustache, 1936; Haran 2025"; NHMUK.

Paralectotypes
ETHIOPIA • 5 ♂♂, 11 ♀♀; Dukem; 8°48′48″ N, 38°54′48″ E; 18 Oct. 1926; H. Scott leg.; flowers of *Mimosa*; NHMUK • 1 ♂, 1 ♀; same collection data as for preceding; CBGP • 1 ♂, 2 ♀♀; Mulu, above Muger Valley; 9°17′06″ N, 40°50′28″ E; 18–23 Nov. 1926; H. Scott coll.; circa 8000 ft; NHMUK.

Other material
KENYA • 1 ♀; Chyulu Hills; 2°32′46″ S, 37°50′31″ E; Jun. 1938; alt. 5600 ft.; NHMUK • 1 ♂; Nairobi; 1°20′02″ S, 36°47′34″ E; Jan. 1938; A.F.J. Gedye coll.; NHMUK • 4 ♂, 1 ♀; 90 km from Nairobi (no precise locality); 22 Mar. 1990; D. Hongo coll.; adults collected on *Vachellia hockii*; NHMUK • 1 ♀; 90 km from Nairobi (no precise locality); 26 Mar. 1990; D. Hongo coll.; adults collected on *Vachellia seyal*; NHMUK • 1 ♀; 10 km from Rumuruti; 0°16′19″ N, 36°29′42″ E; 12 Apr. 1990; D. Hongo coll.; adults collected on flowers of *Vachellia hockii*; NHMUK • 1 ♂; Marich Pass; 1°31′38″ N, 35°25′45″ E; 29 Dec. 1986; *Vachellia nilotica* ssp. *indica* (= *Vachellia nilotica* (L.) P.J.H. Hurter & Mabb.); NHMUK • 1 ♂; Sultan Hamud, Emali Range; 2°01′08″ S, 37°22′19″ E; Mar. 1940; NHMUK.

RWANDA • 1 ♂; Southern Province, Huye District, Kinazi; 2°24′43″ S, 29°47′10″ E; 5–8 Jan. 1953; P. Basilewsky coll.; 1600 m a.s.l.; RMCA.

TANZANIA • 2 ♂♂, 3 ♀♀; Ukerewe Island; 2°02′36″ S, 33°00′18″ E; P.A. Conrade coll.; NHMUK.

UGANDA • 1 ♂, 2 ♀♀; Kibalinga area; 0°30′47″ N, 31°17′13″ E; Jan. 1909; Ch. Alluaud coll.; MNHN • 1 ♂; Uganda central; 0°22′36.6″ N, 32°22′36.2″ E; Jan. 1909; C. Alluaud coll.; MNHN.

Redescription (♂)

Measurements. Body length 2.5–3.0 mm.

Color. Body integument pale brown, elytra with curved transverse dark bands from level of metafemora to middle of length of suture; vestiture of dorsum made of minute white setae.

Head. Rostrum slightly longer than pronotum in lateral view, slightly downcurved; in dorsal view 4× as long as wide, integument densely punctate, covered with short suberect whitish setae oriented transversally; antennae inserted at apical ⅓ of length; head capsule densely punctate in dorsal view, with suberect whitish scales a bit more condensed near eyes; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5× as long as wide, slightly longer than segments 2–3 together, 2 longer than wide, 3–7 transverse.

Pronotum. Moderately wider than long (W : L ratio: 1.18), widest near base, 0.75× as wide there as elytra at humeral angles, lateral carina almost straight, converging apicad; apical constriction shallow; integument with large circular punctures, space between punctures dull, narrower than diameter of punctures; each puncture bearing distinct whitish seta in centre, setiform scales more densely condensed along lateral carinae.

Metathorax. Metanepisterna with scarce, non-contiguous scales.

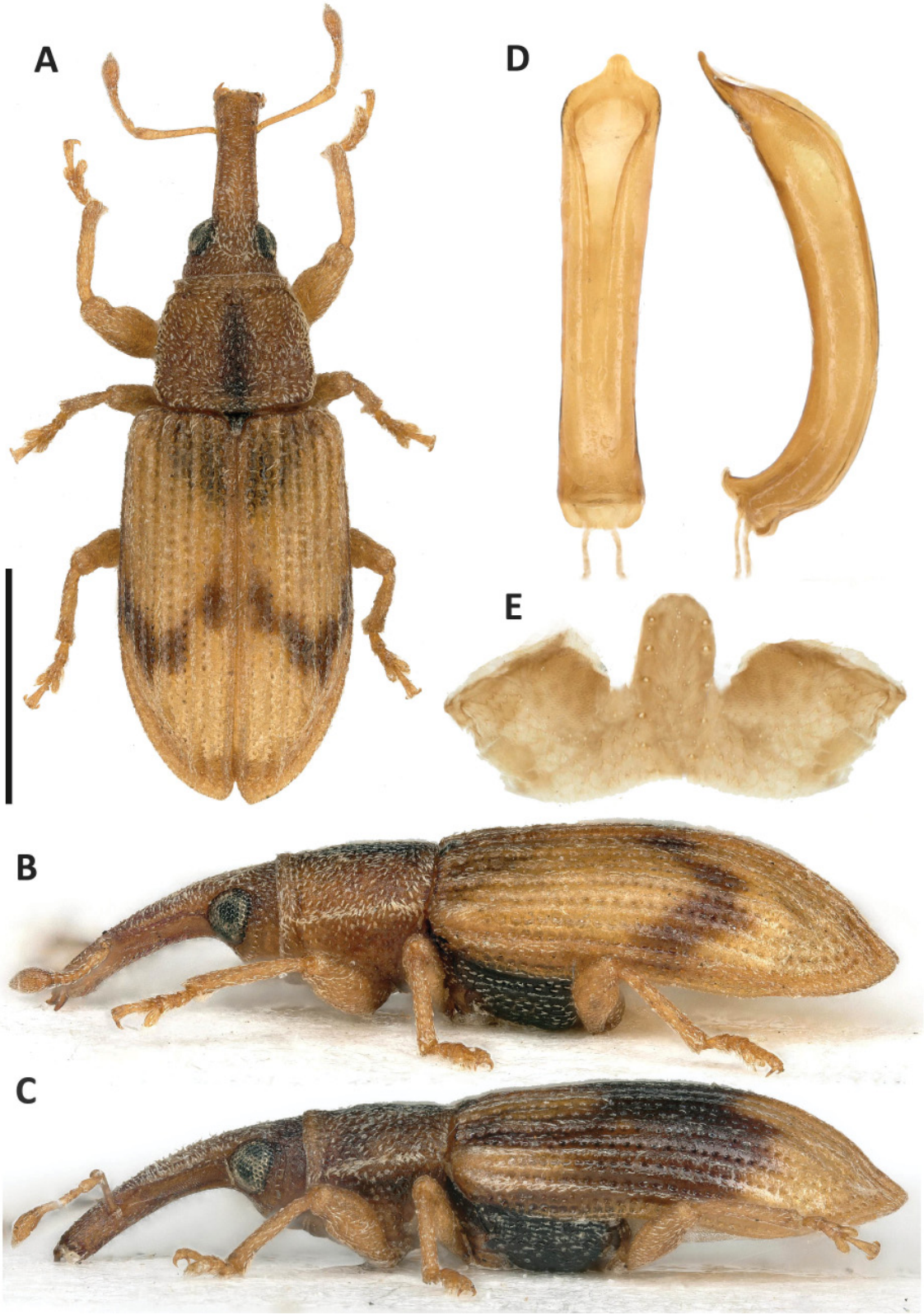


Fig. 5. Habitus of *Derelomus abyssinicus* Hustache, 1936. **A–B, D–E**. Paralectotype, ♂ (Ethiopia) (CBGP). **C**. Paralectotype, ♀ (same locality) (CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Elytra. Elongate (W : L ratio: 0.60); sides slightly convex, widest near middle of length; humeri raised; apex non-joined; striae with punctures as wide as or slightly narrower than interstriae; interstriae slightly convex, odd interstriae a bit more raised; scutellar shield rounded, dark brown, glabrous.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 5–6 granules, as long as median line; central sclerotized area short, rounded at apex.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.20), about 10 × as long as apodemes; sides widest near apex widening from base to apex in dorsal view, apex acuminate; in lateral view curvature stronger in basal ½ of length, width widening regularly from base to apex; apex acute, slightly curved upward (Fig. 5D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is distinctly longer than pronotum in lateral view (Fig. 5C).

Life history

Adults were collected on *Vachellia hockii*, *V. seyal* and unidentified species of *Vachellia*. Adults were collected almost all year round (January, March, April, June, October, November and December).

Distribution

Ethiopia, Kenya, Rwanda, Tanzania and Uganda.

Remarks

In the collection housed at NHMUK, eight specimens corresponding in all respects to the material listed in the original description of *D. abyssinicus* (Abyssinia, Doukham, 1926) were located. As no specific specimen was designed in the description as holotype, the male specimen bearing a red type label was designated as the lectotype for this species [here designated] and was rellabeled accordingly. The other specimens from the series were labelled as paralectotypes. This species in its current concept shows a significant degree of variability, with males from Rwanda (Kinazi) and Uganda (Kibalinga area) exhibiting a much shorter rostrum and more robust antennae than the lectotype. In the original description, Hustache also reported a color and size variation in specimens from Mulu compared to those from Duken (Ethiopia). After examination of the series, especially the male genitalia and stridulatory plate, no stable and significant differences were observed and all the specimens are therefore left under the name *D. abyssinicus* pending further investigation. A single female specimen from Mulu with a very divergent phenotype (different color pattern, rostrum strongly downcurved) was excluded from the paralectotype series and labelled as *Derelomus* sp. (NHMUK).

Derelomus caldarai Haran sp. nov.
urn:lsid:zoobank.org:act:1B2FDFDC-C00B-4A2D-ABC0-7A056989F4E0
Fig. 6

Diagnosis

Derelomus caldarai sp. nov. can be distinguished by the combination of elytra with a single transverse band, the presence of scales on the lateral carina of the pronotum, appendiculate claws and a comparatively short penis with a broadly rounded apex not forming a spatula (Fig. 6D). This species

is closely related to *D. schoedli*, but in the latter species, the apex of the penis forms a distinct spatula, strongly bisinuate in lateral view (Fig. 9D). The two species show a genetic distance of 7.6% for the standard barcode fragment (South African versus Ethiopian specimens, JHAR05867 and JHAR01036 respectively). No robust feature enabling separation of the females of the two species was identified in the course of this study. GenBank accession number for the corresponding DNA barcode: PV698444.

Etymology

This species is dedicated to our colleague Roberto Caldara for his significant contribution to the knowledge of the diversity of many genera in true weevils (Curculioninae).

Material examined

Holotype

TANZANIA • ♂; "Momella, Mt Meru; Tanganjika; E Haaf, XII.1959" "♂" "Holotype ♂; *Derelomus caldarai*; Haran 2025"; TMSA.

Paratypes

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 1 ♀; Stellenbosch; 33°57′54″ S, 18°52′34″ E; 15 Aug. 2023; J. Haran coll.; Beating inflorescences of *Searsia* (Anacardiaceae) by night; JHAR05867; CBGP.

TANZANIA • 1 ♀; Momella, Mt Meru; 3°14′20″ S, 36°46′01″ E; Dec. 1959; E. Haaf coll.; TMSA.

Description (♂)

Measurements. Body length 2.1 mm.

Color. Body integument pale brown, club, head and pronotum slightly darker, elytra with a transverse oblique line of dark spots on even interstriae and middle of suture; vestiture of dorsum made of white setiform scales on head and pronotum and minute white setae on elytra, hardly visible.

Head. Rostrum as long as pronotum in lateral view, moderately and regularly downcurved; in dorsal view 3 × as long as wide, integument densely punctate, with 5 carinae, covered with short suberect whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, with suberect whitish scales forming two tufts near eyes oriented toward centre of forehead; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5 × as long as wide, equal in length to segments 2–3 together, 2 longer than wide, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.36), widest near middle of length, 0.72 × as wide there as elytra at humeral angles, lateral carina smooth and regular; sides converging in apical ⅓ of length, apical constriction shallow; integument with large circular punctures, space between punctures dull, narrower than diameter of punctures; scale cover more visible dense along lateral carinae and on each side of median line.

Metathorax. Metanepisterna with scarce setiform scales.

Elytra. Elongate (W : L ratio: 0.68); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded; striae with punctures as wide as or slightly narrower than interstriae; even interstriae slightly convex; scutellar shield rounded, dark brown, glabrous.

Abdomen. Underside covered with subcontiguous recumbent whitish setae. Stridulatory plate with lines of 5 granules, as long as median line; central sclerotized area regularly rounded.

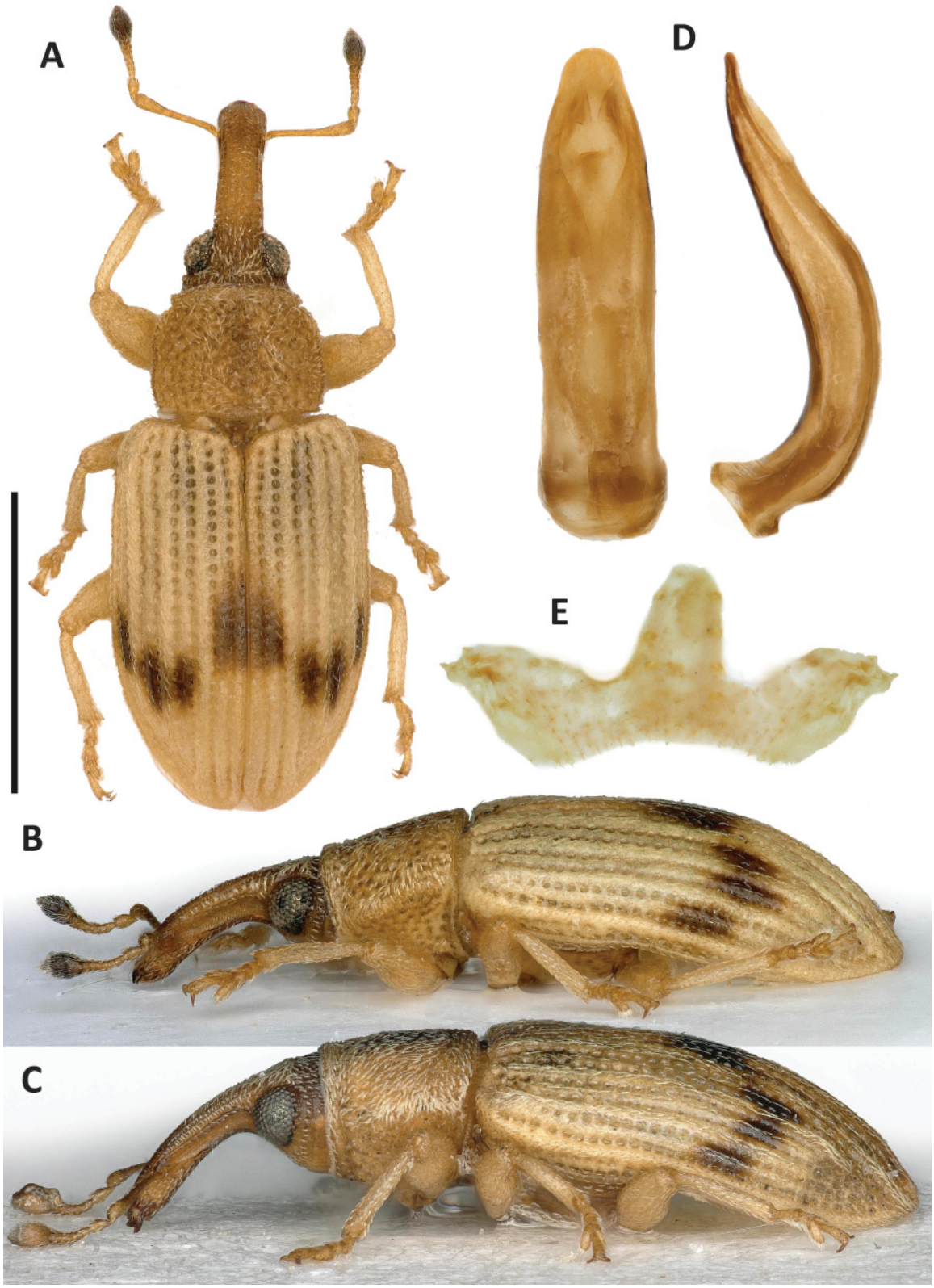


Fig. 6. Habitus of *Derelomus caldarai* Haran sp. nov. **A–B, D–E**. Holotype, ♂ (Tanzania) (TMSA). **C**. Paratype, ♀ (JHAR05867-01) (Republic of South Africa) (CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws appendiculate.

Terminalia. Body of penis elongate (W : L ratio: 0.25); sides subparallel in dorsal view, widest beyond middle of length, converging regularly apicad from apical ⅖ of length, apex rounded; in lateral view curvature strong in basal ½ of length, straight in apical ½; width narrowing regularly from middle of length to apex; apex slightly curved upward (Fig. 6D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer and less downcurved in lateral view (Fig. 6C).

Life history

Adults were collected on *Mimosa* sp. (Fabaceae). The sampling on *Searsia* sp. (Anacardiaceae) is likely accidental. Adults were collected in December in Tanzania and in August in the Republic of South Africa.

Distribution

Republic of South Africa, Tanzania.

Remarks

The apodemes of the single male available were damaged and could not be used in the description. Females of this species cannot be distinguished from those of *D. schoedli* based on morphology alone. The specimens reported here are those belonging to the holotype series or those for which a DNA barcode could be obtained. The other material is provisionally identified as *D.* "*schoedli/caldarai*" (see list of depositories in the Remarks section under *D. schoedli*) pending further investigation of this species complex.

Derelomus lindbergi Roudier, 1957
Fig. 7

Derelomus lindbergi Roudier, 1957: 15.

Diagnosis

This species can be distinguished by the combination of appendiculate claws, the lateral carina on the pronotum covered with whitish scales, the penis body rounded at the apex, not expanded into a spatula and the elytral pattern absent or reduced to a dark dot on the 4th elytral interstriae.

Material examined

Holotype

REPUBLIC OF CABO VERDE • ♂; "Ins. Cabo Verde; S. Tiago Praia [14°56′24″ N 23°29′49″ W]; 5-14.2.1954; Lindberg" "TYPE [red label]" "*Derelomus*; *lindbergi*; n. sp.; A. Roudier det."; MZH.

Paratypes

REPUBLIC OF CABO VERDE • 2 ♂♂, 6 ♀♀; Santiago Island, Praia; 14°56′24″ N, 23°29′49″ W; 5–14 Feb. 1954; H. Lindberg coll.; MZH • 29 specs; same collection data as for preceding (Roudier 1957; not seen), MZH • 1 spec. (sex not determined); San Antão Island, Porto Novo; 17°01′08″ N, 25°04′37″ W; 4–7 Jan. 1954; H. Lindberg coll.; MZH.

Other material

BURKINA FASO • 3 ♂♂, 1 ♀, 10 specs; Passoré, 8 km S of Ouest Yako; 12°51′44″ N, 2°18′35″ W; 7 Aug. 2005; F. and S. Génier coll.; light trap, Sudanian zone north; JHAR07714; CMNC • 1 ♀; Nahouri, Nazinga Forest, Naguio; 11°9′36.0″ N, 1°36′0.0″ W; 24 Jul. 2006; F. and S. Génier coll.; light trap, Sudanian zone, savanna with trees; JHAR07711; CMNC • 1 ♀; Nahouri, Nazinga, Forest, Barka; 11°11′16.8″ N, 1°34′48.0″ W; 24 Jul. 2006; F. and S. Génier coll.; light trap, Sudanian zone, savanna with trees; JHAR07712; CMNC • 1 ♂, 11 specs; Loroum, Toulfé; 13°53′43″ N, 1°52′25″ W; 15 Jul. 2005; F. and S. Génier coll.; light trap, Sahelian steppe with trees; JHAR07713; CMN • 1 spec.; Bale, Boromo; 11°48′08″ N, 002°51′58″ W; 10 Aug. 2005; F. Genier coll.; light trap Sudanian area; CMNC.

CAMEROON • 1 ♂; Maroua; 10°34′48″ N, 14°19′45″ E; 1 Aug. 1979; P.B. de Miré coll.; CBGP.

SENEGAL • 1 ♂; Niokolo Koba National Park, Badi; 13°08′17″ N, 13°13′26″ W; Mar.–Apr. 1957; NHMUK.

Redescription (♂)

Measurements. Body length 2.0 mm.

Color. Body integument uniformly pale brown, elytra in some specimens with dark spot beyond middle of length of interstriae 4; vestiture of dorsum made of white setiform scales on head and pronotum and minute white setae on elytra, hardly visible, forming one row on each interstria.

Head. Rostrum as long as pronotum in lateral view, moderately downcurved, curvature slightly stronger in basal half; in dorsal view 4.5× as long as wide, integument densely punctate, lacking carinae along median line, covered with short suberect whitish setae oriented toward forehead; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, with suberect whitish scales oriented backward; eyes moderately convex, slightly exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5× as long as wide, equal in length to segments 2–3 together, 2 longer than wide, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.18), widest near middle of length, 0.76× as wide there as elytra at humeral angles, lateral carina smooth and regular; sides slightly convex, apical constriction shallow; integument with large circular punctures, arranged in irregular manner, space between punctures dull, narrower or wider than diameter of punctures; scale cover made of white setae longer than diameter of punctures, more condensed along lateral carinae.

Metathorax. Metanepisterna with scarce, not overlapping setiform scales.

Elytra. Elongate (W : L ratio: 0.67); sides slightly convex, widest beyond middle of length; humeri raised; apex jointly rounded; striae with punctures as wide as interstriae; interstriae slightly convex; scutellar shield rounded, bearing a few setiform scales.

Abdomen. Underside covered with subcontiguous recumbent whitish setae. Stridulatory plate with lines of 4 granules, as long as median line; central sclerotized area regularly rounded at apex.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws appendiculate.

Terminalia. Body of penis elongate (W : L ratio: 0.20); sides slightly convex in dorsal view, widest near apical ⅔ of length, apex rounded; in lateral view curvature strong in basal ⅓ of length, straight in apical ⅔; width narrowing regularly from apical ⅖ to apex; apex slightly curved upward (Fig. 7D).

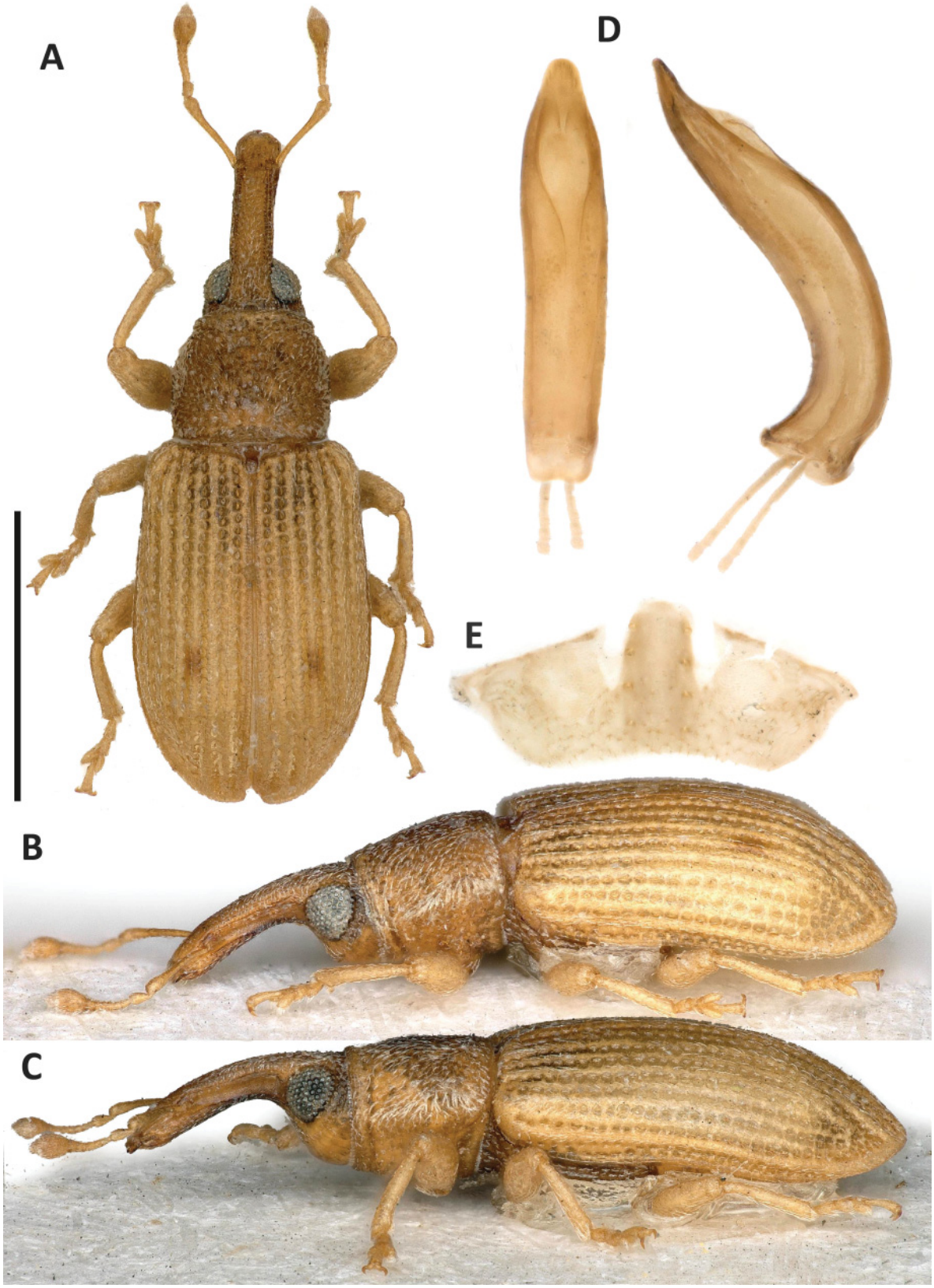


Fig. 7. Habitus of *Derelomus lindbergi* Roudier, 1957. **A–B, D–E**. Holotype, ♂ (Republic of Cabo Verde) (MZH). **C**. Paratype, ♀ (same locality) (MZH). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: 1 mm; D–E not to scale.

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer in lateral view (Fig. 7C).

Life history

This species was collected on *Vachellia* sp. ("*Acacia*", Roudier 1957) from January to April and from July to August.

Distribution

Burkina Faso, Cape Verde archipelago (Santiago and Santo Antão islands), northern Cameroon and Senegal.

Derelomus pericarti Hoffmann, 1968
Fig. 8

Derelomus pericarti Hoffmann, 1968: 173.

Diagnosis

Derelomus pericarti can be distinguished by the combination of appendiculate claws, the lateral carina on the pronotum covered with whitish scales, the antennal funicle and club concolorous, the elytral pattern absent or reduced to a dark dot on the 4th elytral interstriae and the penis body in the male forming a long spatula moderately curved upward. It is very close to *D. schoedli*, the color of the club and the shape of the body of penis allows distinguishing these species.

Lectotype (here designated)
REPUBLIC OF CHAD • ♂; "Rép. du Tchad; Bas-Chari, 1963; J. Péricart, coll." "Env. de Fort-Lamy; Farcha 26.7; o/ *Acacia nilotica*" "TYPE [red label]" "*Derelomus*; (s.st.) *pericarti* m[me]; A. Hoffmann det." "Museum Paris. Coll J Péricart" "Lectotype ♂; *Derelomus*; *pericarti*; Hoffmann, 1968; J. Haran des. 2025"; MNHN.

Paralectotypes
REPUBLIC OF CHAD • 4 ♂♂, 7 ♀♀; N'Djamena, Farcha; 12°07′16″ N, 14°59′06″ E; 26 Jul. 1963; J. Péricart, coll.; on *Vachellia nilotica* (L.)P.J.H.Hurter & Mabb.; MNHN • 1 ♀; N'Djamena, Farcha, Chari riverside; 12°06′50″ N, 14°59′28″ E; 29 Jul. 1963; J. Péricart, coll.; on *Vachellia nilotica*; MNHN.

Other material
CAMEROON • 2 ♀♀; N'goum [see map in Hoffmann 1968: 153]; 12°48′29″ N, 14°32′49″ E; 11 Aug. 1963; J. Péricart, coll.; evening sampling; MNHN.

Redescription (♂)

Measurements. Body length 1.8–2.0 mm.

Color. Body integument uniformly pale brown, elytra in some specimens with a dark spot beyond middle of length of interstriae 4; vestiture of dorsum made of white setiform scales on head and pronotum and minute white setae on elytra, hardly visible, forming one row on each interstria.

Head. Rostrum as long as pronotum in lateral view, moderately downcurved, curvature slightly stronger in basal half; in dorsal view 3.5× as long as wide, integument densely punctate, lacking carinae along median line, covered with short suberect whitish setae oriented toward forehead; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, with suberect whitish setiform scales

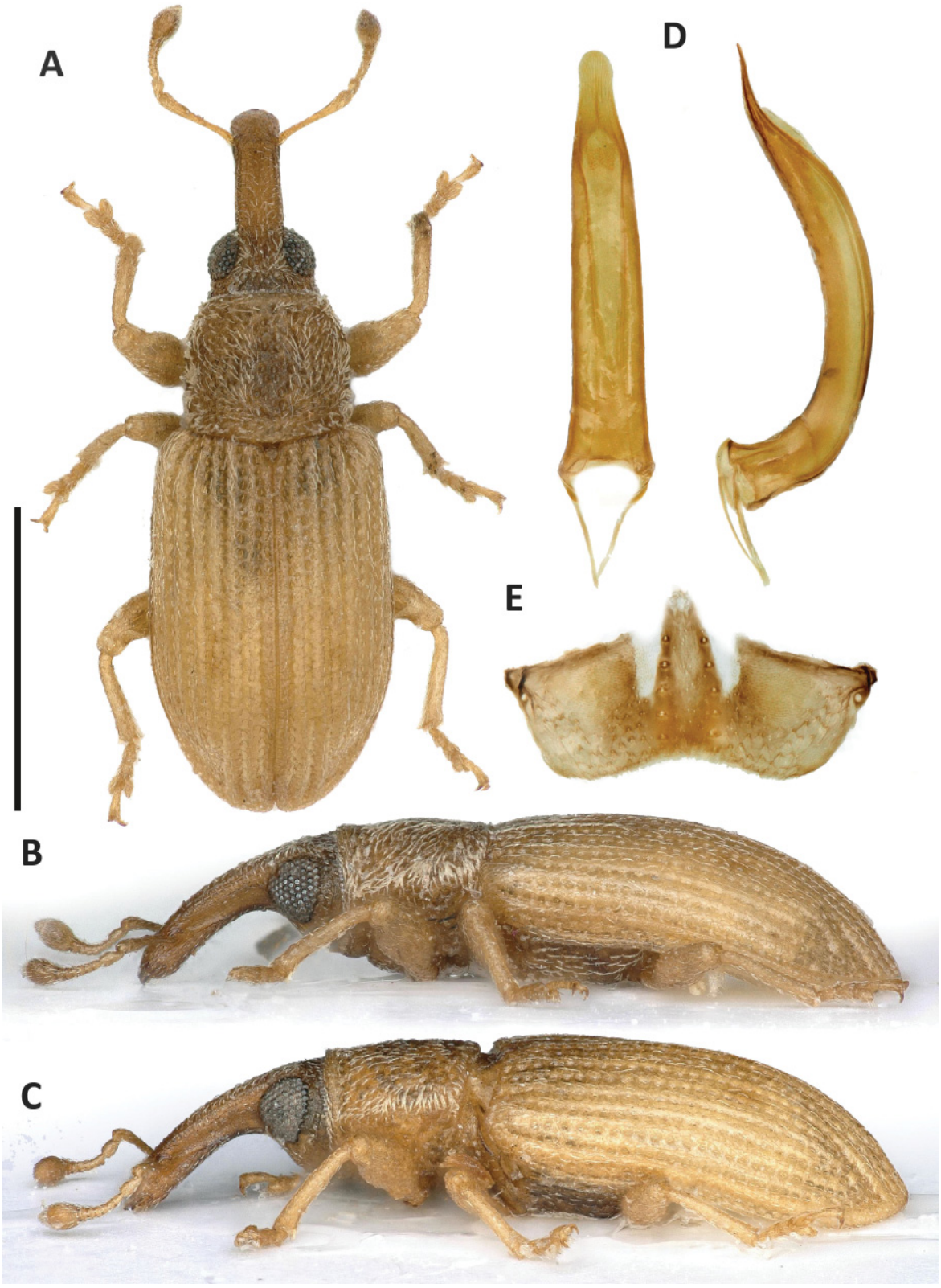


Fig. 8. Habitus of *Derelomus pericarti* Hoffmann, 1968. **A–B, D–E**. Lectotype, ♂ (Republic of Chad) (MNHN). **C**. Paralectotype, ♀ (same locality) (MNHN). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

oriented backward, more condensed near eyes; eyes moderately convex, slightly exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5 × as long as wide, equal in length to segments 2–4 together, 2 isodiametric, 3–7 transverse.

Pronotum. Slightly longer than wide (W : L ratio: 0.90), widest near middle of length, 0.73 × as wide there as elytra at humeral angles, lateral carina smooth and regular; sides slightly convex, apical constriction shallow; integument with large circular punctures, arranged in an irregular manner, space between punctures dull, narrower or wider than diameter of punctures; scale cover made of white setae longer than diameter of punctures, more condensed along lateral carinae.

Metathorax. Metanepisterna with scarce, overlapping setiform scales.

Elytra. Elongate (W : L ratio: 0.67); sides slightly convex, widest beyond middle of length; humeri raised; apex jointly rounded; striae with punctures as wide as interstriae; interstriae slightly convex; scutellar shield rounded, bearing minute setiform scales.

Abdomen. Underside covered with subcontiguous recumbent whitish setae. Stridulatory plate with lines of 5–6 granules, as long as median line; central sclerotized area rounded and narrow at apex.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws appendiculate.

Terminalia. Body of penis elongate (W : L ratio: 0.20), about 4 × as long as apodemes; sides almost straight, converging from base to apex, apex forming an elongate spatula approximately 2 × as long as wide; in lateral view curvature stronger in basal ⅓ of length; width narrowing regularly from apical ¼ of length to apex; apex slightly curved upward and bisinuate (Fig. 8D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer in lateral view (Fig. 8C).

Life history

This species was collected on *Vachellia nilotica* (Fabaceae). Adults were sampled in the evening. Months of collecting were July and August.

Distribution

This species is only known from the N'Djamena region in Chad and the northern tip of Cameroon. Its putative host, *V. nilotica*, is widely distributed in Africa and western Asia.

Remarks

Derelomus pericarti was described based on a series of male and female specimens without designation of a holotype (Hoffmann 1968). In the J. Péricart and A. Hoffmann collections housed at MNHN, the series of specimens from N'Djamena, Farcha, used for description (species identification handwritten by Hoffmann) was located. These specimens bear red types and paratype labels. A male specimen bearing the red type label is designated as the lectotype for *Derelomus pericarti* [here designated] and was labelled accordingly. The rest of the series was labelled as paralectotypes for this species.

Derelomus schoedli Rheinheimer, 2005
Fig. 9

Derelomus schoedli Rheinheimer, 2005: 384.

Derelomus schoedli – Haran *et al*. 2022a: phylogenetic relationship, erroneously identified as *D. signatus*.

Diagnosis

Derelomus schoedli can be distinguished by the combination of appendiculate claws, the lateral carina on the pronotum covered with whitish scales, the antennal club darker than the funicle (on fully sclerotized specimens), the elytral pattern absent or reduced to a dark dot on the 4th elytral interstriae and the penis body in the male forming a long spatula strongly curved upward and bisinuate. It is very close to *D. pericarti* (see Diagnosis section under that species). Females of this species cannot be distinguished from those of *D. caldaria* sp. nov. GenBank accession numbers for the corresponding DNA barcodes: OK188815–16.

Material examined

Holotype

SAUDI ARABIA• ♂; "Saudi Arab. 1976; Wittmer, Büttiker" "8-20 km O Abha-; Taif [approx. 21°21′14″ N 40°13′48″ E] 2100m 20.4." "*Derelomus*; *schoedli*; Rheinheimer; Holotype"; NMB.

Paratypes

SAUDI ARABIA • 6 ♀♀; 8–20 km W of Taif; 21°21′14″ N, 40°13′48″ E; 20 Apr. 1976; Wittmer and Büttiker coll.; NMB • 2 ♀♀; Abha, Wadi Johan; 18°13′05″ N, 42°30′22″ E; 19 Apr. 1976; Wittmer and Büttiker coll.; NMB • 3 ♀♀; Abha, Wadi Johan; 18°13′05″ N, 42°30′22″ E; 15 Apr. 1976; Wittmer and Büttiker coll.; NMB • 6 ♀♀; village Qaraah, Khamis; 18°17′54″ N, 42°43′00″ E; 16 Apr. 1976; Wittmer and Büttiker coll.; NMB • 4 ♀♀; "Wadi ad Dilla" [locality?]; 17 Oct. 1979; W. Büttiker coll.; NMB • 4 ♀♀; Asir, Bani Rizam; 18°19′00″ N, 42°27′00″ E; 12 Apr. 1980; W. Büttiker coll.; NMB • 3 ♀♀; Tanomah; 18°55′55″ N, 42°10′23″ E; 11 Apr. 1980; W. Büttiker coll.; NMB • 2 ♀♀; Wadi Aziza; 18°12′58″ N, 42°27′00″ E; 19 Sep. 1983; W. Büttiker coll.; NMB • 1 ♀; Wadi Marba, Khamis Mushait; 17 Apr. 1976; Wittmer and Büttiker coll.; NMB • 1 ♀; BAC Camp, Khamis Mushait; 18 Apr. 1976; Wittmer and Büttiker coll.; NMB. See full list of paratypes in Rheinheimer (2005).

Other material

ETHIOPIA • 1 ♂, 1 ♀; Hawzen; 13°58′42″ N, 39°25′52″ E; 9 Dec. 2013; P. Weill coll.; beating *Vachellia* sp.; JHAR01036; PW.

Redescription (♂)

Measurements. Body length 2.0 mm.

Color. Body integument uniformly pale brown, antennal club black, elytra with curved line of dark spots beyond middle of length on interstriae 2, 4, 6, 8; vestiture of dorsum made of white setiform scales on head and pronotum and minute white setae on elytra, forming one or two rows on each interstria.

Head. Rostrum as long as pronotum in lateral view, moderately downcurved in basal ⅓, almost straight in apical ⅔; in dorsal view about 4 × as long as wide, integument densely punctate, lacking carinae along median line, covered with short suberect whitish setae oriented toward forehead; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view, forehead with minute setiform scales oriented backward, more condensed near eyes; eyes moderately convex, slightly exceeding lateral curve

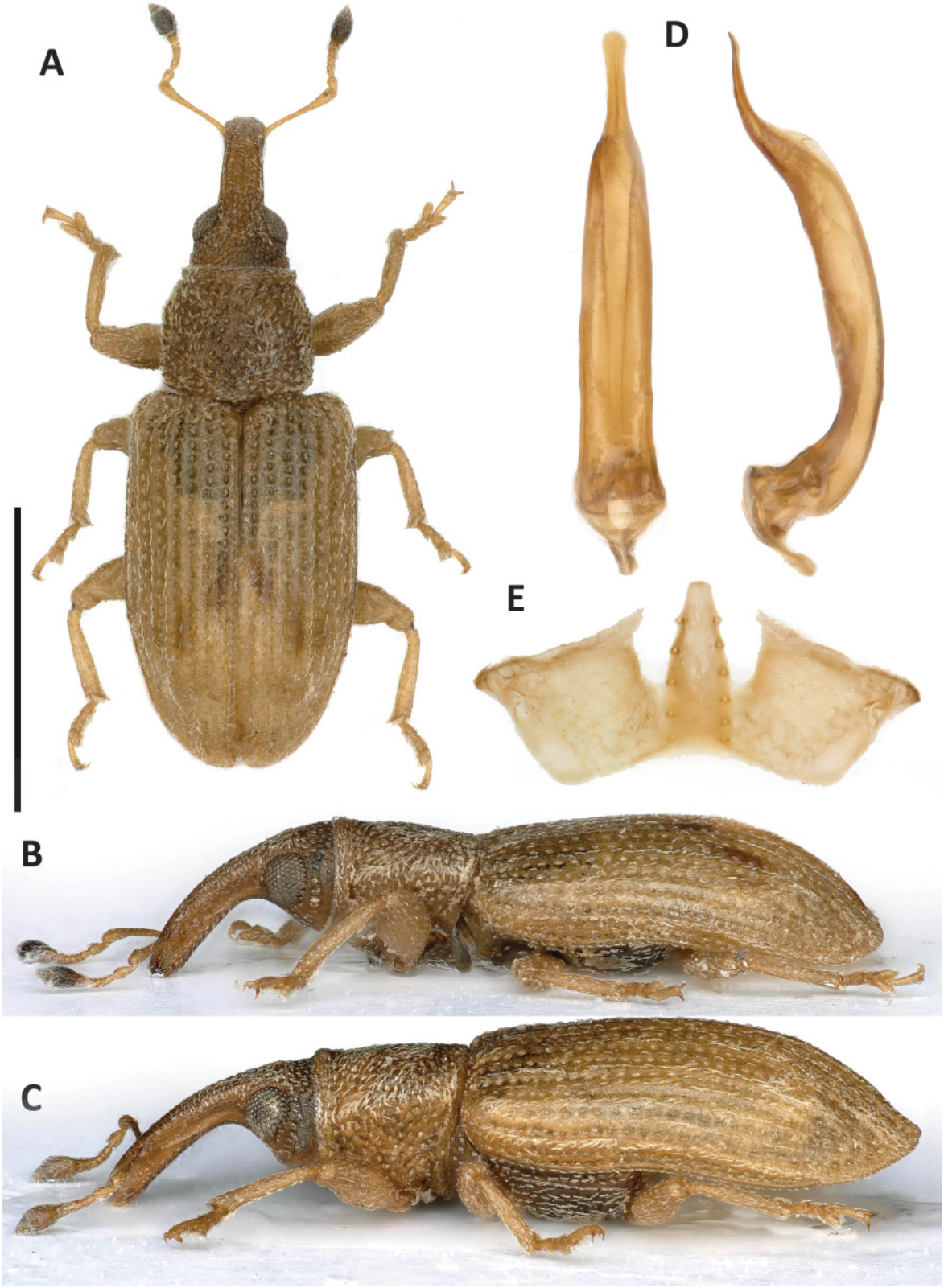


Fig. 9. Habitus of *Derelomus schoedli* Rheinheimer, 2005. **A–B, D–E**. Holotype, ♂ (Saudi Arabia) (NMB). **C**. Paratype, ♀ (same locality) (NMB). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

of head capsule in dorsal view; antennal funicle with first segment 1.5 × as long as wide, equal in length to segments 2–4 together, 2 isodiametric, 3–7 transverse.

Pronotum. Slightly wider than long (W : L ratio: 1.15), widest near middle of length, 0.65 × as wide there as elytra at humeral angles, lateral carina smooth and regular; sides subparallel in basal ⅗, converging in apical ⅖; integument with large circular punctures, arranged in irregular manner, space between punctures dull, narrower or wider than diameter of punctures; scale cover made of white setae longer than diameter of punctures, more condensed along lateral carinae.

Metathorax. Metanepisterna with scarce, non-overlapping scales.

Elytra. Elongate (W : L ratio: 0.65); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded; striae with punctures as wide as interstriae or slightly narrower; interstriae slightly convex; scutellar shield rounded, bearing minute setiform scales.

Abdomen. Underside covered with subcontiguous recumbent whitish setae. Stridulatory plate with lines of 5–6 granules, as long as median line; central sclerotized area narrow and rounded at apex.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate; claws appendiculate.

Terminalia. Body of penis very elongate (W : L ratio: 0.17), about 5 × as long as apodemes; sides almost straight, converging slightly from base to apex, apex forming elongate spatula approximately 4 × as long as wide; in lateral view curvature stronger in basal ½ of length; width narrowing regularly from apical ¼ of length to apex; apex bisinuate (Fig. 9D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer in lateral view (Fig. 9C).

Life history

The verified Ethiopian series were collected on an unidentified species of *Vachellia* (Fabaceae).

Distribution

Ethiopia and Saudi Arabia.

Remarks

Only two males are available in this species, from Saudi Arabia and Ethiopia. They show slight differences in rostrum shape and size (slightly longer and more downcurved in the Ethiopian specimen) and the examination of longer series will probably increase our knowledge on the variability of morphological features reported here in the redescription. The rest of known specimens are females (Rheinheimer 2005). Female specimens cannot at this stage be distinguished from those of *D. caldarai* sp. nov. based on morphological features. The list of material corresponds to that reported in Rheinheimer (2005) and females from a series in which a male was available for verification (Ethiopia). Other material from Botswana, Kenya, Rwanda, Republic of South Africa and Zambia (housed at CMNC, DEI, MNHN, NHMUK, RMCA, TMSA and USNM) was provisionally labelled as *Derelomus* "*schoedli/caldarai*", see below.

BOTSWANA • 1 ♀; Serowe Farmer's Brigade; Sep. 1995; P. Forchhammer leg.; mercury vapour light trap; DEI.

KENYA • 1 ♀; 90 km from Nairobi (no precise locality); 23 Mar. 1990; D. Hongo coll.; adults collected on *Vachellia seyal*; NHMUK • 2 ♀♀; 90 km from Nairobi (no precise locality); 22 Mar. 1990; D. Hongo coll.; adults collected on *Vachellia hockii*; NHMUK • 1 ♀; Taveta; 3°23′46″ S, 37°40′30″ E; 750 m; Mar. 1912; Alluaud and Jeannel coll.; MNHN.

REPUBLIC OF SOUTH AFRICA – **Eastern Cape Province** • 1 ♀; Uitenhage [now Kariega]; 33°45′49″ S, 25°26′20″ E; Oct. 1898; RW. Onfil [?] coll.; on *Mimosa*; NHMUK. – **KwaZulu-Natal Province** • 2 ♀♀; Frere; 28°53′46″ S, 29°46′37″ E; May 1892; GAK. Marshall coll.; in rose; NHMUK. – **Mpumalanga Province** • 3 ♀♀; 16 km N, of Barberton; 25°42′00″ S, 30°57′00″ E; 10 Feb. 1987; Endrödy-Younga coll.; bush passed flowering; E-Y: 2440; TMSA. – **North West Province** • 1 ♀; Libertas [Mahikeng]; 25°50′46″ S, 25°38′24″ E; 10–11 Oct. 1979; Colin R. Owen coll.; USNM.

RWANDA • 1 ♀; Bugarama; 2°42′00″ S, 29°00′36″ E; 25 Jan. 1926; Dr H. Schouteden coll.; RMCA.

YEMEN • 14 ♀♀; Jabal Jiḥāf; 13°45′04.0″ N, 44°40′53.0″ E; 4 Oct. 1937; H. Scott and E. B. Britton coll.; NHMUK • 1 ♀; Jabal Jiḥāf; 13°45′04.0″ N, 44°40′53.0″ E; 18–19 Sep. 1937; H. Scott and E.B. Britton coll.; NHMUK • 1 ♀; Jabal Jiḥāf; 13°45′04.0″ N, 44°40′53.0″ E; 1 Oct. 1937; H. Scott and E.B. Britton coll.; NHMUK • 1 ♀; Jabal Jiḥāf; 13°45′04.0″ N, 44°40′53.0″ E; 7 Oct. 1937; H. Scott and E.B. Britton coll.; NHMUK • 1 ♀; Sanaa; 15°19′30.8″ N, 44°12′42.6″ E; 17–18 Sep. 1937; Dr Carl Rathjens coll.; from lucerne field; NHMUK.

ZAMBIA • 1 ♀; Lukulu, Barotse Floodplain; 14°12′39″ S, 23°19′09″ E; 9 Nov. 2013; R. Smith, H. Takano and D. Oram coll.; light trap; NHMUK • 4 ♀♀; Kabwe, Kasanka NP; 12°32′29″ S, 30°12′40″ E; 30 Nov. 2012; Smith R & Takano H coll.; Light trap, Edward's funnel; NHMUK • 1 ♀; 9 km E of Mulalika; 15°41′10″ S, 28°43′52″ E; 24 Nov. 2010; J. Génier coll.; light trap, Southern Miombo woodland; CMNC.

***Derelomus pallidus* group**

This species group contains only three species, which exhibit a uniformly pale brown integument, a comparatively small body size, equal to or below 2.5 mm, and a lateral carina on the pronotum lacking a dense cover of white scales. The monophyly of this species group is supported by molecular data, at least for the two species *D. pallidus* and *D. prochesi* sp. nov. (Fig. 33). Species in this group are restricted to East and southern Africa, they are associated with Ebenaceae and Achariaceae.

Derelomus pallidus Fåhraeus, 1844
Fig. 10

Derelomus pallidus Fåhraeus, 1844: 95.
Derelomus pallidus Hartmann, 1904: 407. **Syn. nov.**
Derelomus hartmanni Klima, 1934: 134 (replacement name for *D. pallidus* Hartmann, 1904; preoccupied name). **Syn. nov.**

Derelomus pallidus – Haran *et al*. 2022a; 2022b (life history, phylogenetic relationships); 2023a (life history).

Diagnosis

Derelomus pallidus can be distinguished in the combination of small body size (up to 2.5 mm), a short rostrum (at most as long as the pronotum in lateral view; Fig. 10B), the uniformly pale brown body integument (the darker triangular area as base of the elytra in this species is due to the dark color of the tergites partly masked by the wings in repose condition, some specimens have the head and rostrum slightly darker) and the simple claws. It can be distinguished from other species in the *D. pallidus* group

by its comparatively short rostrum (Figs 10B, 11B–F). The general appearance of this species is close to another one in Derelomini: *Ebenacobius rectirostris* Haran, 2022, but in the latter, the interocular space bears a groove (absent in *Derelomus*) and the body of the penis lacks a thickening near the base (synapomorphy in *Derelomus*). In our current knowledge, *D. pallidus* is the only species of *Derelomus* associated with the flowers of *Euclea* L. (Ebenaceae). GenBank accession numbers for the corresponding DNA barcodes: ON553416/ ON553430/PV698476–77–78–79.

Material examined

Lectotype of *Derelomus pallidus* Fåhraeus, 1844 (here designated)
REPUBLIC OF SOUTH AFRICA • ♀; "Cap. b.; sp. [Cape of Good hope, South Africa]" "Drége" "3757; E91+" "Naturhistorika Riksmuseet; Stockholm; Loan no 813/06" "Lectotype ♀; *Derelomus*; *pallidus*; Fåhraeus 1844; Haran des. 2025"; NHRS.

Lectotype of *Derelomus pallidus* Hartmann, 1904
TANZANIA • ♂; "♂" "Usambara; Kraatz" "47" "*Derelomus*; *pallidus* Htm" "Coll. J. Faust; Ankauf 1900" "Staatl. Museum für; Tierkunde Dresden" "Lectotype ♀; *Derelomus*; *pallidus*; Hartmann, 1904; Haran des. 2025" "*Derelomus*; *hartmanni*; Klima, 1934; Haran 2025" "*Derelomus*; *pallidus*; Fåhraeus 1844; Haran 2025"; MTD.

Paralectotypes
TANZANIA • 4 ♀♀; same collection data as for lectotype of *Derelomus pallidus* Hartmann, 1904; MTD.

Other material
ANGOLA • 1 ♂, 1 ♀; Tundavala; 14°50′39″ S, 13°24′54″ E; 27–29 Mar. 1972; at lights; NHMUK.

KENYA • 1 ♀; Mount Kenya, West slope, Amboni Rivir; 0°20′13″ S, 36°54′10″ E; Jan.–Feb. 1912; Alluaud and Jeannel coll.; MNHN • 1 ♀; Nairobi 1°20′17″ S, 36°47′28″ E; Jan. 1938; A.F.J. Gedye coll.; NHMUK.

REPUBLIC OF SOUTH AFRICA – **Eastern Cape Province** • 2 ♂♂, 30 specs (preserved in ethanol); Byra river mouth; 33°12′07″ S, 18°04′55″ E; 14 Jul. 2019; J. Haran coll.; beating flowers of *Euclea* L. sp. (Ebenaceae); JHAR02380; CBGP • 1 ♂, 1 ♀; same collection data as for preceding; MCZR • 2 ♂♂, 2 ♀♀; Kabeljous Nature Reserve; 33°59′42″ S, 24°56′00″ E; Dec. 2009; Ş. Procheş coll.; beating flowers of *Diospyros dichrophylla* (Gand.) De Winter (Ebenaceae); JHAR04163; CBGP • 4 ♂♂; Colchester; 33°42′25″ S, 25°50′38″ E; Ş. Procheş coll.; on *Euclea sp.* (Ebenaceae); JHAR07429; CBGP • 2 ♂♂, 2 ♀♀; Gamtoos; 33°57′29″ S, 25°02′17″ E; Ş. Procheş coll.; beating flowers of *Diospyros dichrophylla* (Ebenaceae); JHAR07428; CBGP • 2 ♂, 7 ♀♀; Kenton-on-Sea; 33°41′06″ S, 26°40′12″ E; 9 Sep. 1951; E. Mc. Callan coll.; on sand; BM-1963-286; NHMUK • 1 ♀; Port St Johns; 31°37′46″ S, 29°32′31″ E; 15–31 May 1923; R.E. Turner coll.; NHMUK. – **KwaZulu-Natal Province** • 1 ♀; New Germany Nature Reserve, Protea Ridge; 29°48′43″ S, 30°53′28″ E; Jul. 2011; Ş. Procheş coll.; on flowers of *Diospyros* L. sp. (Ebenaceae); JHAR07431; CBGP. – **Northern Cape Province** • 1 ♂, 1 ♀, 40 specs (preserved in ethanol); Oorlogskloof Nature Reserve; 31°27′00″ S, 19°04′05″ E; 4 Aug. 2023; J. Haran; beating flowers of undet. bush; JHAR05784; CBGP. – **Western Cape Province** • 2 ♂♂, 2 ♀♀; Cape Town; 33°55′12″ S, 18°24′36″ E; Aug. 1893; SAMC • 2 ♂♂, 1 ♀, 20 specs (preserved in ethanol); West Coast National Park; 33°12′07″ S, 18°04′55″ E; 3 Mar. 2018; J. Haran coll.; beating flowers of *Euclea racemosa* L. (Ebenaceae); JHAR00820; CBGP • 1 ♀, 4 specs (preserved in ethanol); Stellenbosch; 33°56′28″ S, 18°52′19″ E; 28 Jul. 2018; J. Haran coll.; beating flowers of *Searsia* (Anacardiaceae); JHAR01361; CBGP • 1 spec. (preserved in ethanol); Paradysekloof; 33°58′09″ S, 18°52′38″ E; 30 Mar. 2019; J. Haran; on white flowering bush; CBGP • 6 specs (preserved in ethanol); Du Toitskloof Pass; 33°43′15″ S, 19°04′23″ E; 21 Apr. 2018; J. Haran; beating fynbos; JHAR00920; CBGP • 3 specs

(preserved in ethanol); Cape Peninsula, Cape of Good Hope; 34°21′12″ S, 18°28′24″ E; 15 Apr. 2018; J. Haran; beating flowers of *Euclea racemosa* (Ebenaceae); JHAR00921-01; CBGP • 1 spec. (preserved in ethanol); Franschoek Pass; 33°54′15″ S, 19°09′26″ E; 4 Jun. 2018; J. Haran; beating flowers of *Euclea racemosa* (Ebenaceae); CBGP • 7 specs (preserved in ethanol); Arniston; 34°40′30″ S, 20°13′52″ E; 21 Mar. 2019; J. Haran; beating flowers of *Euclea racemosa* (Ebenaceae); JHAR02253; CBGP • 1 ♀, 1 spec. (preserved in ethanol); Elandsbay; 32°19′49″ S, 18°18′58″ E; 6 Aug. 2023; J. Haran; beating flowers of *Euclea racemosa* (Ebenaceae); JHAR05798; CBGP • 10 specs (preserved in ethanol); Simonsberg; 33°53′10″ S, 18°55′30″ E; 7 Dec. 2019; J. Haran; beating fynbos; JHAR03096; CBGP • 2 ♀♀; Betty′s Bay; 34°20′24″ S, 18°55′12″ E; Ş. Procheş coll.; beating flowers of *Diospyros lycoides* Desf. (Ebenaceae); JHAR07427; CBGP • 1 ♀; Standford; 34°26′10″ S, 19°26′49″ E; Dec. 2009; M. Gibson coll.; on *Acacia saligna* (Labill.) H.L. Wendl. (Fabaceae); JHAR07430; CBGP • 2 ♂♂, 2 ♀♀; Mossel Bay; 34°12′04″ S, 22°05′56″ E; Apr. 1921; R.E. Turner coll.; "165"; NHMUK • 4 ♂♂, 2 ♀♀; Mossel Bay; 34°12′04″ S, 22°05′56″ E; Jun. 1921; R.E. Turner coll.; NHMUK • 1 ♀; Mossel Bay; 34°12′04″ S, 22°05′56″ E; Sep. 1921; R.E. Turner coll.; NHMUK • 1 ♀; Mossel Bay; 34°12′04″ S, 22°05′56″ E; Oct. 1921; R.E. Turner coll.; NHMUK • 2 ♂♂,4 ♀♀; Breede River, Heidelberg Dist.; 33°32′21″ S, 19°12′04″ E; 6 Feb. 1932; R.E. Turner coll.; NHMUK • 1 ♀; Cape Town; 33°55′12″ S, 18°24′36″ E; 1 Sep. 1901; Cledoux coll.; USNM • 1 ♀; Ceres; 33°22′04″ S, 19°18′21″ E; 2–21 Mar. 1921; R.E. Turner coll.; NHMUK • 1 ♀; Worcester; 33°37′51″ S, 19°27′18″ E; Sep. 1928; R.E. Turner coll.; NHMUK.

UGANDA • 1 ♂; Kawanda; 0°25′31″ N, 32°32′24″ E; 15 Feb. –6 Mar. 1958; P. Walley; mercury vapor light trap; NHMUK.

Redescription (♂)

Measurements. Body length 1.9–2.4 mm.

Color. Body integument unifo.rmly pale brown, head and club usually darker; dark color of tergites visible elytra at base, forming darker reversed triangle. Vestiture of dorsum made of minute white, recumbent setae, integument glabrous in appearance.

Head. Rostrum as long as pronotum in lateral view, moderately and regularly downcurved; in dorsal view 3 to 4 × as long as wide, integument densely punctate, forming 5 carinae, more or less distinct; antennae inserted near apical ¼ of length; head capsule densely punctate in dorsal view; eyes very convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, equal in length to segments 2–4 together, 2 longer than wide, 3–7 transverse.

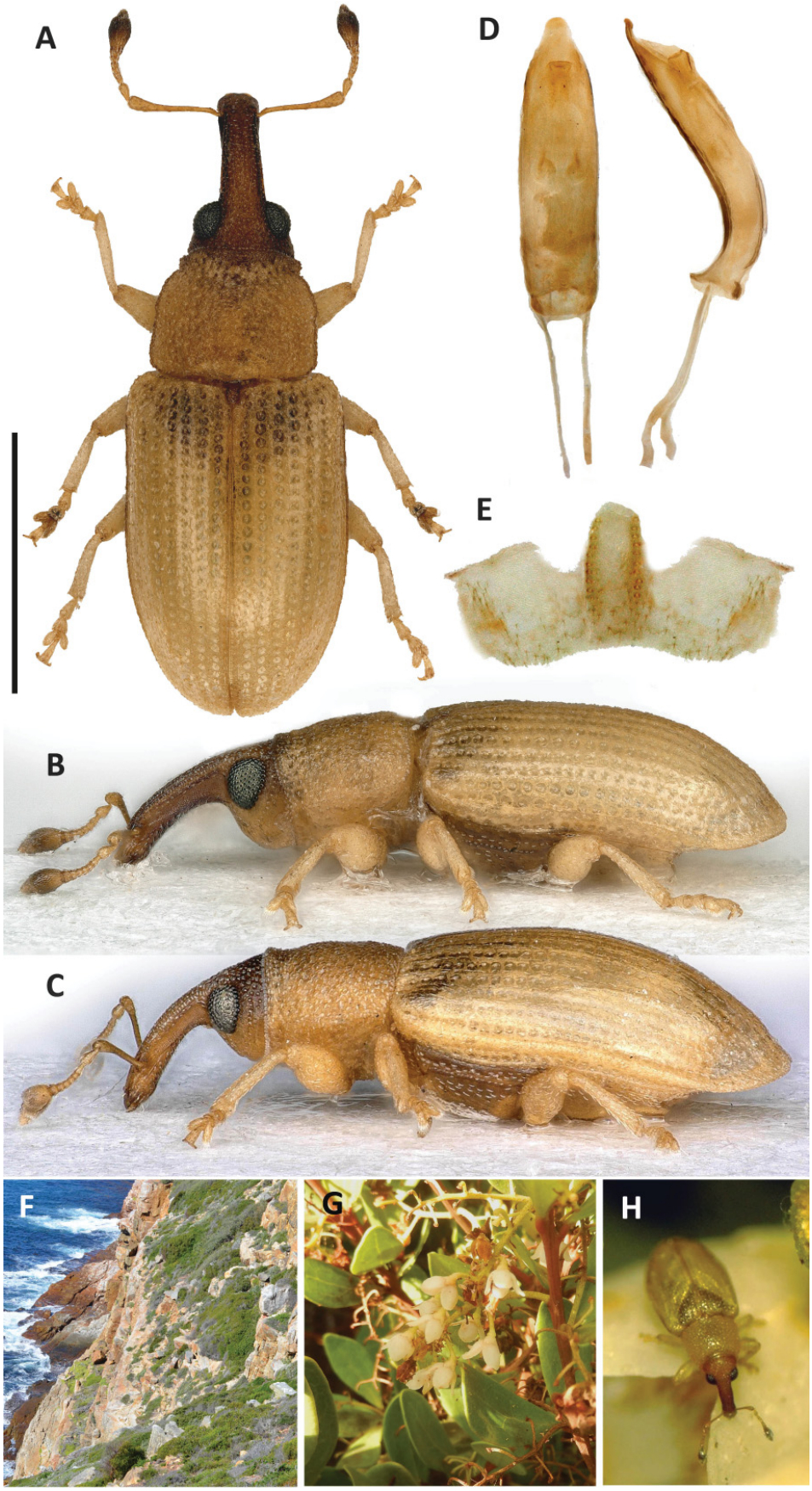
Pronotum. Isodiametric to moderately wider than long (W : L ratio: 1–1.20), widest near base, 0.78 × as wide there as elytra at humeral angles, lateral carina forming small obtuse tooth slightly beyond middle of length; sides subparallel or slightly converging apicad in basal ⅔ of length, converging or converging more distinctly in apical ⅓, apical constriction shallow but visible; integument with large circular punctures, arranged in irregular manner, space between punctures dull, narrower or wider than diameter of punctures.

Metathorax. Metanepisterna with scattered non-overlapping white setae.

Elytra. Longer than wide (W : L ratio: 0.67); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded; striae with punctures as wide as or slightly narrower than interstriae; interstriae slightly convex, 9 raised into carina; scutellar shield rounded, bearing recumbent setae.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of about 10 granules, ⅔ × as long as median line from base; granules space between granules as wide as or narrower than diameter of granules. Central sclerotized area wide and regularly rounded apically.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate, metatibiae slightly curved outward in apical half; claws simple.


A
D
E
B
C
F
G
H

Terminalia. Body of penis moderately elongate (W : L ratio: 0.28), slightly less than 2 × as long as apodemes; sides regularly and moderately convex in dorsal view, widest near middle of length; converging more strongly in apical ¼, apex rounded; in lateral view curvature stronger in basal ⅖ of length, width narrowing from apical ⅕ middle of length to apex; apex curved upward (Fig. 10C).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer in lateral view.

Variation

The rostrum of this species shows a sizable variability of size and curvature, but this variation is not associated with genetic divergence (Fig. 33).

Life history

Adults of this species are found in prodigious numbers on inflorescences in anthesis of *Euclea racemosa* (Ebenaceae), which likely constitutes its host plant. They accidentally visit the flowers of other plants and were sporadically recorded on Fabaceae and Anacardiaceae. A specimen was also intercepted in the port of Los Angeles (USA) on imported *Phylica* L. sp. (Rhamnaceae) in 2002 (USNM). The records on flowers of *Diospyros* L. species would deserve further observations in order to verify if this species can develop on Ebenaceae out of *Euclea*. *Derelomus pallidus* was found in sympatry with *Ebenacobius san* Haran, 2022 on *Euclea racemosa* and with *Ebenacobius hessei* Haran, 2022 on an unidentified *Euclea* (Haran *et al.* 2022b). Note that multi species assemblage of weevils on white and pendulous inflorescences of dioecious plants like *Euclea* agree with the typical patterns of brood-site pollination mutualism (Haran *et al.* 2023a). Adults were recorded from January to March in East Africa (Kenya) and almost all year round in southern Africa (Angola and Republic of South Africa, not recorded in January, May and October–November).

Distribution

This species is distributed in southern and East Africa (Angola, Kenya, Republic of South Africa, Tanzania and Uganda). The putative host plant, *Euclea racemosa* (Ebenaceae), ranges from the Western Cape Province of the Republic South Africa up to the southern part of the Arabian Peninsula.

Remarks

In the Fåhraeus collection housed at NHRS, a female specimen under the name *Derelomus pallidus* and fitted with the labels “Cap. b.; sp.[cape of good hope]” and “Drége” (as reported in the original description) was located. This specimen is the lectotype [here designated] for *Derelomus pallidus* Fåhraeus, 1844 and was labelled accordingly. In the Faust-Hartmann collection housed at MTD, a syntypic series of specimens (1 ♂, 4 ♀♀) under the name *Derelomus pallidus* and bearing the labels “Usambara” and “Kraatz” as reported in the original description was located. The male specimen of this series was designated as the lectotype for *Derelomus pallidus* Hartmann, 1904 [here designated] and was labelled accordingly. The name *Derelomus pallidus* Hartmann, 1904 was replaced by *Derelomus hartmanni* Klima, 1934 in the *Catalogus Coleopterorum* (Klima 1934), the former combination being preoccupied by *Derelomus pallidus* Fåhraeus, 1844. Detailed examinations of external and internal

Fig. 10 (preceding page). Habitus and life history of *Derelomus pallidus* Fåhraeus, 1844. **A–B, D–E**. ♂ (Republic of South Africa) (JHAR00820-01, CBGP). **C**. ♀ (Republic of South Africa) (JHAR05798-01, CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F**. Habitat of *Euclea racemosa* L. on the Cape Peninsula in the Republic of South Africa. **G**. Male inflorescences of *Euclea racemosa*. **H**. Adult of *D. pallidus* on a male flower of its host, note the mimicry of body integument with the corolla. Scale bar: A–C = 1 mm; D–E not to scale.

morphology of the type material of *Derelomus pallidus* Fåhraeus, 1844 and *Derelomus hartmanni* Klima, 1934 as well as specimens related to these species from various localities showed no significant differences. The rostrums in the lectotype and the paralectotypes of *D. hartmanni* are slightly longer and more downcurved than in the lectotype of *D. pallidus*, but the examination of long series of specimens of *D. pallidus* shows that the shape of the rostrum is quite variable at population level, a feature not associated with genetic differences (specimens included in Haran *et al*. 2022a were variable for that feature). In addition, the host plant of *D. pallidus* (*Euclea racemosa* L.) is widely distributed in austral and eastern Africa, and occurs where *D. hartmanni* was recorded (Tanzania). As a result of this, the names *Derelomus pallidus* Hartmann, 1904 and *Derelomus hartmanni* Klima, 1934 are proposed as junior synonyms of *Derelomus pallidus* Fåhraeus, 1844 [new synonymies].

Derelomus setifer Haran sp. nov.
urn:lsid:zoobank.org:act:2011F57B-74C1-4204-B93E-4560240AD0E5
Fig. 11A–D

Diagnosis

Derelomus setifer sp. nov. can be distinguished from other species of the genus by the combination of appendiculate claws, a rostrum longer than the pronotum in lateral view, the metanepisterna with a dense vestiture of white scales and the erect setae on the elytra. It is closest to *D. prochesi* sp. nov., but the latter species only bears small recumbent setae on the elytra. The penis of both species is diagnostic (Fig. 11C, G).

Etymology

The species name refers to the erect setae on elytra of this species. This feature is apparently unique in the genus *Derelomus*.

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA • ♂; "S. Afr; Tvl. [Mpumalanga Province] Nelshoogte; Forest Station; 25.50S – 30.50E [25°50′00″ S 30°50′00″ E]" "18.ii.1987; E-Y:2449; White flow. creeper; Leg. Endrödy-Younga" "Holotype; *Derelomus setifer*; Haran 2025"; TMSA.

Paratypes

REPUBLIC OF SOUTH AFRICA – **Mpumalanga Province** • 1 ♀; Nelshoogte, Forest Station; 25°50′00″ S, 30°50′00″ E; 18 Feb. 1987; Endrödy-Younga coll.; on white flower creeper; E-Y:2449; TMSA • 1 ♀; same collection data as for preceding; CBGP. – **Eastern Cape Province** • 1 ♂; Queenstown [Komani]; 31°54′03″ S, 26°54′40″ E; 16 Jan.–10 Feb. 1923; 1066 m a.s.l.; R.E. Turner coll.; British Museum 1923-140; NHMUK.

Description (♂)

Measurements. Body length 2.2 mm.

Color. Body integument pale brown; vestiture of elytra consists of row of white setae alternately erect and recumbent on each interstria, striae as long as width of interstriae; each puncture of striae with short recumbent seta, shorter than width of interstriae; setae not concealing the integument.

Head. Rostrum longer than pronotum in lateral view (1.4 ×), moderately and regularly downcurved; in dorsal view 5 × as long as wide, integument densely punctate, covered with short suberect whitish setae oriented transversally; antennae inserted near apical ⅕ of length; head capsule coarsely punctate in dorsal

view, with contiguous suberect whitish setae oriented toward centre of forehead; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, equal in length to segments 2–4 together, 3–5 isodiametric, 6–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.25), widest near middle of length, 0.75 × as wide there as elytra at humeral angles, lateral carina forming an obtuse tooth in middle of length; sides abruptly converging in apical ⅓, apical constriction shallow, hardly visible; integument with large circular punctures, space

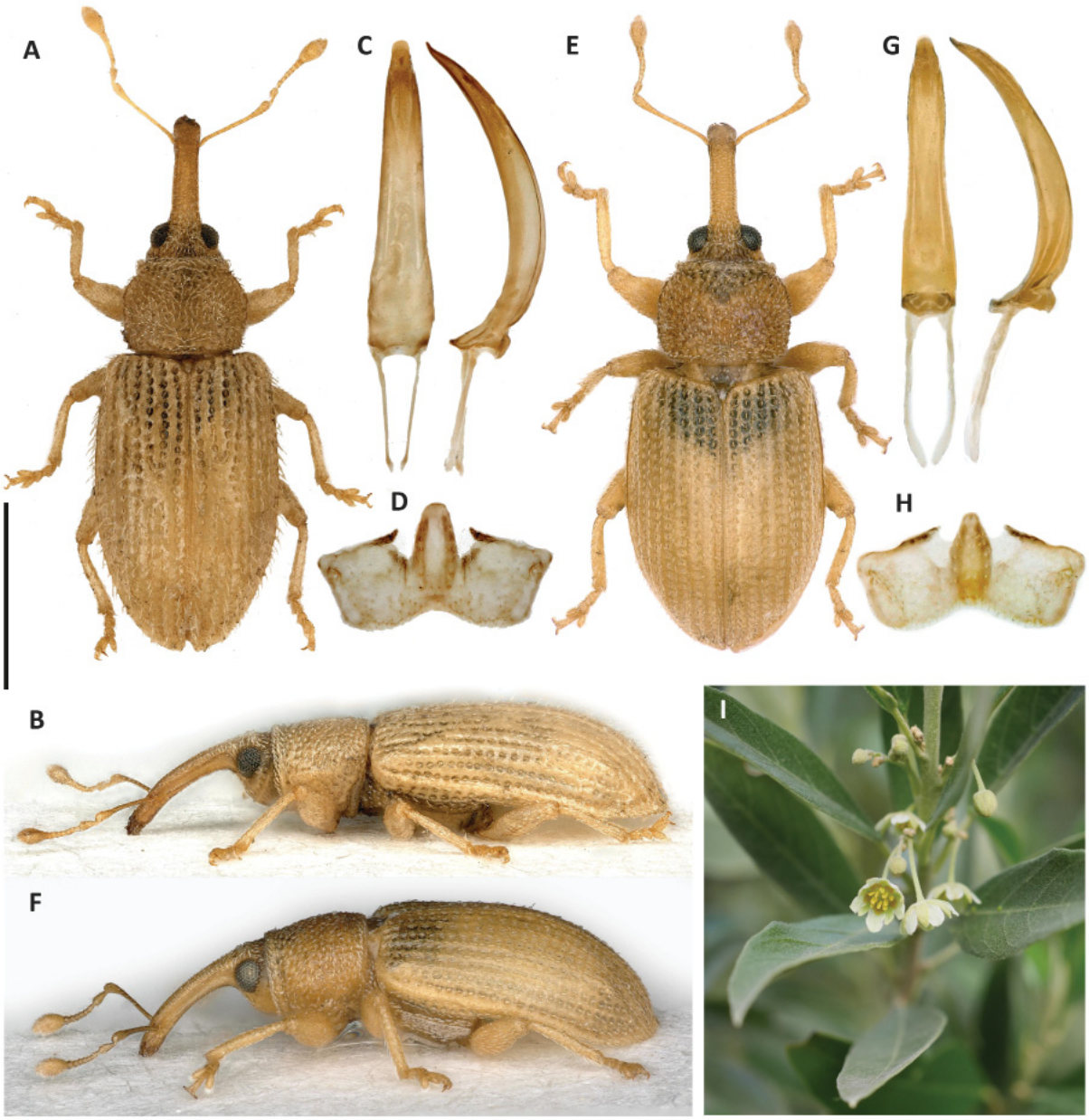


Fig. 11. A–D. *Derelomus setifer* Haran sp. nov., holotype, ♂ from Nelshoogte (Republic of South Africa, Mpumalanga Province) (E-Y:2449, TMSA). **E–H**. *Derelomus prochesi* Haran sp. nov., ♂, holotype, from the Tradouw Pass (Republic of South Africa, Western Cape Province) (JHAR05978-01, SAMC). **A**. Habitus in dorsal view. **B**. Habitus in lateral view. **C**. Penis in dorsal (left) and lateral view (right). **D**. Stridulatory plate. **E**. Habitus in dorsal view. **F**. Habitus in lateral view. **G**. Penis in dorsal (left) and lateral view (right). **H**. Stridulatory plate. **I**. *Kiggelaria africana* L. (Achariaceae), putative host plant of *Derelomus prochesi*. Scale bar: A–B, E–F = 1 mm; C–D, G–H not to scale.

between punctures smooth, shiny, as wide as or wider than diameter of punctures near scutellar shield, narrower on the rest of pronotum; setae suberect, downcurved, oriented toward scutellar shield.

Metathorax. Metanepisterna with dense vestiture of white scales.

Elytra. Longer than wide (W : L ratio: 0.62); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded, notched at apex of suture; striae with punctures as wide as or slightly narrower than interstriae; interstriae slightly convex, 9 raised into carina; scutellar shield triangular, bearing recumbent setae.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 7 granules ¾ × as long as median line from base. Central sclerotized area regularly rounded laterally.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal slightly concave in apical ½, metatibiae slightly curved outward in apical half; claws appendiculate.

Terminalia. Body of penis elongate (W : L ratio: 0.20), more than 2 × as long as apodemes; sides straight in dorsal view, widest at base, converging regularly apicad, apex rounded; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from middle of length to apex; apex curved upward (Fig. 11C).

Sexual dimorphism

Female can be distinguished from males by the rostrum which is narrower in dorsal view (6–7 × as long as wide in females, 5 × as long as wide in males).

Life history

Specimens were collected on an unidentified creeper with white flowers (Endrödy-Younga obs.). Adults were collected in January and February.

Distribution

Derelomus setifer sp. nov. is known from the Eastern Cape and Mpumalanga provinces in the Republic of South Africa.

Remarks

Elytral striae 2–3 and 4–5 are merged in the holotype. This is obviously a teratogenic case not representative of the species and as such not reported in the description.

Derelomus prochesi Haran sp. nov.
urn:lsid:zoobank.org:act:13F72B0D-4B14-4524-85A4-E72AD4319B50
Fig. 11E–H

Diagnosis

Derelomus prochesi sp. nov. can be distinguished from other species of the genus by the combination of appendiculate claws, a rostrum longer than the pronotum in lateral view, the metanepisterna with a dense vestiture of white scales and the recumbent setae on the elytra. It is closest to *D. setifer* sp. nov. but the latter species bears erect setae on the elytra. The penis of both species is diagnostic (Fig. 11C, G). GenBank accession numbers for the corresponding DNA barcodes: ON553431–32/PV598482.

Etymology

The species is dedicated to Şerban Procheş, for his intensive collecting of weevils in the Republic of South Africa that enabled the discovery of this species and its host plant.

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA • ♂; "Rep. of South Africa; WC Pr. [Western Cape Province], Tradouw Pass; 20.viii.2023; J. Haran coll." "JHAR05978-01; -33.931 20.712 [33°55′53″ S 20°42′43″ E]; *Kiggelaria africana* fl.; Collection – Cirad" "Holotype; *Derelomus*; *prochesi*; Haran 2025"; SAMC.

Paratypes

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 1 ♀; Tradouw Pass; 33°55′53″ S, 20°42′43″ E; 20 Aug. 2023; J. Haran coll.; beating male inflorescences of *Kiggelaria africana* L.; JHAR05978-02; CBGP • 3 ♀♀; Stellenbosch Mountain; 33°57′36″ S, 18°52′48″ E; 17 Jul. 2018; J. Haran coll.; beating fynbos; JHAR01174; CBGP • 1 ♀; Kirstenbosch botanical garden, entrance area; 33°59′14″ S, 18°26′00″ E; Sep. 2010; Ş. Procheş coll.; flowers of *Kiggelaria africana*; JHAR07403-01; CBGP. – **Eastern Cape Province** • 2 ♀♀; Colchester; 33°41′24″ S, 25°49′48″ E; 1 Oct. 2020; Ş. Procheş coll.; flowers of *Kiggelaria africana*; JHAR07404; CBGP.

Description

Male

Measurements. Body length 2.0 mm.

Color. Body integument pale brown; vestiture of elytra made of a row of white recumbent setae non-contiguous on each interstria, shorter than width of interstriae; each puncture of striae with a short recumbent seta, shorter than width of interstriae; setae not concealing the integument.

Head. Rostrum longer than pronotum in lateral view (1.2 ×), moderately and regularly downcurved; in dorsal view 5 × as long as wide, integument densely punctate, covered with short recumbent whitish setae oriented transversally, except near eyes where oriented toward forehead; antennae inserted near apical ⅕ of length; head capsule coarsely punctate in dorsal view, with contiguous suberect and downcurved whitish setae oriented toward centre of forehead; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, equal in length to segments 2–4 together, 3 isodiametric, 4–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.26), widest near apical ⅓ of length, 0.75 × as wide there as elytra at humeral angles, side rounded, abruptly converging in apical ⅓, apical constriction shallow; integument with large circular punctures, space between punctures smooth, shiny, as wide as or narrower than diameter of punctures; setae recumbent, downcurved, shorter than diameter of punctures in central area, oriented toward scutellar shield.

Metathorax. Metanepisterna with dense vestiture of white scales.

Elytra. Moderately longer than wide (W : L ratio: 0.75); sides convex, widest near middle of length; humeri raised; apex jointly rounded, slightly notched at apex of suture; striae with punctures as wide as or slightly wider than interstriae; interstriae slightly convex, 9 raised into carina; scutellar shield triangular, densely covered by recumbent whitish setae.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 4–6 granules ¾ × as long as median line from base. Central sclerotized area narrowed near base.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal slightly concave in apical ½, metatibiae slightly curved outward in apical half; claws appendiculate.

Terminalia. Body of penis elongate (W : L ratio: 0.20), 2 × as long as apodemes; sides concave in middle of length in dorsal view, widest at base, apical ½ lanceolate, apex rounded; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from middle of length to apex; apex curved upward (Fig. 11G).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is narrower and longer in dorsal view (7 × as long as wide in females, 5 × as long as wide in males).

Life history

Derelomus prochesi sp. nov. was collected in almost all localities on flowers of the tree *Kiggelaria africana* (Achariaceae), which probably constitutes its host plant. This species forms a supported phylogenetic clade with *Derelomus pallidus* (Fig. 33) associated with *Euclea racemosa* (Ebenaceae). Such clade exhibits a derived condition of development on dicot plants from an ancestral association with palms (Arecaceae) in the genus *Derelomus*. The flowers of *Euclea* spp. and *Kiggelaria africana* show remarkable morphological similarities, possibly arising from convergently selected features to host weevils. More generally, *Kiggelaria* trees agree in several aspects with the trends of brood-site pollination mutualism with weevils (dioecy, patchy distribution, cantharophilous flowers; Haran *et al.* 2023a). Such an interaction would deserve detailed investigations. Adults were collected from July to October.

Distribution

Derelomus prochesi sp. nov. is a South African endemic in our current knowledge, distributed along the coast of the Eastern and Western Cape provinces, up to 40 km inland. Its host ranges naturally from Cape Town in the Republic of South Africa up to Kenya (GBIF 2024).

***Derelomus nigrovariegatus* group**

This species group is defined by the combination of a glabrous lateral carina on the pronotum, the comparatively large body length (generally beyond 3 mm) and the prosternum at least partly dark brown. The protibiae of the males exhibit a distinct internal comb of erect setae and the sex dimorphism for the shape and curvature of the rostrum is marked (note that these features have not been verified in *D. nigrovariegatus* Hustache, 1936 due to the unavailability of males). Six species are recognized in this group, they are distributed in Central, East and southern Africa. Most species were collected on male inflorescences and in fruits of *Phoenix reclinata* Jacq. (Arecaceae) and one species develops in flowers of *Strelitzia nicolai* Regel & Körn. (Strelitziaceae).

Derelomus strelitziae Haran sp. nov.
urn:lsid:zoobank.org:act:B79074EC-85AF-424D-9DC0-C97BAE7C04B1
Fig. 12

Diagnosis

Derelomus strelitziae sp. nov. can be distinguished from other species in the genus by its scutellum concealed by a dense cover of whitish setae. The body is flat in lateral view and the integuments on mature specimens are dark brown with a few pale brown patterns on the elytra. GenBank accession numbers for the corresponding DNA barcodes: ON553428–29.

Etymology

The specific epithet refers to the genus name of the host plant of this *Derelomus*: *Strelitzia nicolai.*

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA • ♂; "Republic of South Africa; KZN Pr. [KwaZulu-Natal Province], Margate; 6.x.2018; J. Haran coll." "-30.857 30.376[30°51′26″ S 30°22′34″ E]; *Strelitzia nicolai* flowers; JHAR01561_0101; Cirad" "Holotype; *Derelomus*; *strelitziae*; Haran, 2025"; SANC.

Paratypes

REPUBLIC OF SOUTH AFRICA – **KwaZulu-Natal Province** • 2 ♂♂, 3 specs (preserved in ethanol); same collection data as for holotype; CBGP • 1 ♂; same collection data as for holotype; MNHN • 5 ♀♀; Bluff Nature Reserve; 29°56′13″ S, 30°59′40″ E; Aug. 2008; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07394; CBGP • 1 ♂, 2 ♀♀, 17 specs (preserved in ethanol); Durban, uMhlanga; 29°43′09″ S, 31°05′27″ E; 7 Oct. 2010; J. Haran coll.; on flowers of *Strelitzia nicolai*; JHAR01572; CBGP • 2 ♂♂, 1 ♀; Queen Elizabeth Park, lake area; 29°34′19″ S, 30°19′27″ E; Jun. 2008; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07393; CBGP • 1 ♂, 1 ♀; Enseleni; 28°41′21″ S, 32°00′00″ E; Oct. 2009; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07396; CBGP • 1 ♂; same collection data as for preceding; TMSA • 1 ♂, 1 ♀; same collection data as for preceding; NHMUK • 2 ♂♂, 1 ♀, 8 specs (preserved in ethanol); Port Edward; 31°02′39″ S, 30°13′34″ E; 12 Jul. 2019; J. Haran coll.; on flowers of *Strelitzia nicolai*; JHAR02369; CBGP • 1 ♂; San Lameer, Mondazur Hotel; 30°56′42″ S, 30°17′49″ E; Jul. 2012; Ş. Procheş coll.; on cultivated flowers of *Strelitzia nicolai*, but within natural range, naturally occurring less than 1 km away; JHAR07402; CBGP • 1 ♂, 1 ♀; Sordwana Bay, 5 km NW of town; 27°28′42″ S, 32°38′42″ E; Oct. 2009; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07397; CBGP • 1 ♂; UKZN Westville, School of Business; 29°48′57″ S, 30°56′46″ E; Sep. 2009; Ş. Procheş coll.; on wall; JHAR07395; CBGP • 1 ♀; UKZN Westville, Biomedical Center; 29°49′24″ S, 30°56′52″ E; Nov. 2011; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07401; CBGP • 1 ♀; Umtentueni; Jul. 1953; E.L. Sleeper leg.; SANC • 2 ♂♂; Umbogintwini; 30°01′08″ S, 30°54′14″ E; Nov.–Jan. 1925; Hardenberg coll.; NHMUK. – **Western Cape Province** • 1 ♀; Plettenberg Bay; 34°04′01″ S, 23°22′23″ E; Dec. 2009; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07398; CBGP. – **Eastern Cape Province** • 1 ♂; Mbotyi village; 31°27′55″ S, 29°43′55″ E; Dec. 2009; Ş. Procheş coll.; on flowers of *Strelitzia nicolai*; JHAR07400; CBGP • 1 ♂; same collection data as for preceding; MCZR • 1 ♂; same collection data as for preceding; RB • 1 ♀; Van Stadens Nature Reserve; 33°54′40″ S, 25°13′09″ E; Dec. 2009; Ş. Procheş coll.; on cultivated flowers of *Strelitzia nicolai*, outside natural range; JHAR07399; CBGP • 1 ♂; Summerstrand, Port Elizabeth; 33°59′24.0″ S, 25°39′36.0″ E; Ş. Procheş coll.; on *Strelitzia nicolai*; ANIC.

Description (♂)

Measurements. Body length 3.0–5.0 mm.

Color. Body integument dark brown, often reddish brown on teneral adults; tibiae, tarsi and scape reddish brown; elytra with pale brown patterns generally forming circles laterally on basal half and apical half; dorsum with minute whitish setae, glabrous in appearance.

Head. Rostrum slightly longer than pronotum in lateral view, moderately and regularly downcurved; in dorsal view 3.6× as long as wide, integument densely punctate, forming 5 longitudinal carinae from eyes to antennal insertion, covered with short recumbent and non-contiguous whitish setae oriented transversally; antennae inserted near apical ⅕ of length; head capsule coarsely punctate in dorsal view;

eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with segments 1–2 subequal in length, 1 wider than 2, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.23), widest near middle of length, slightly narrower there than elytra at humeral angles; sides straight, subparallel or slightly convex, abruptly converging in apical ¼, apical constriction as wide as width of scape at apex; integument densely and irregularly punctate, space between punctures smooth, dull; setae more visible laterally, as long as width of punctures.

Elytra. Sides subparallel or slightly convex, widest near ⅗ of length (W : L ratio: 0.56); humeri raised; apex rounded, not contiguous; striae with punctures as wide as or slightly narrower than interstriae; interstriae flat or slightly convex, 9 raised into carina; scutellar shield rounded, concealed by whitish setae.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 10 granules ¾ × as long as median line (Fig. 12E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae bisinuate, carinate, bearing a comb of elongated golden setae as long as or longer than largest width of protibiae, extending from basal ⅕ to apex (Fig. 12F); meso and metatibiae lacking comb of elongated setae; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.20), 2 × as long as apodemes; sides subparallel in dorsal view, widest near basal ⅓ of length, converging regularly apicad, apex acuminate; in lateral view curvature stronger in basal ½ of length, width narrowing apicad in apical ¼ (Fig. 12D).

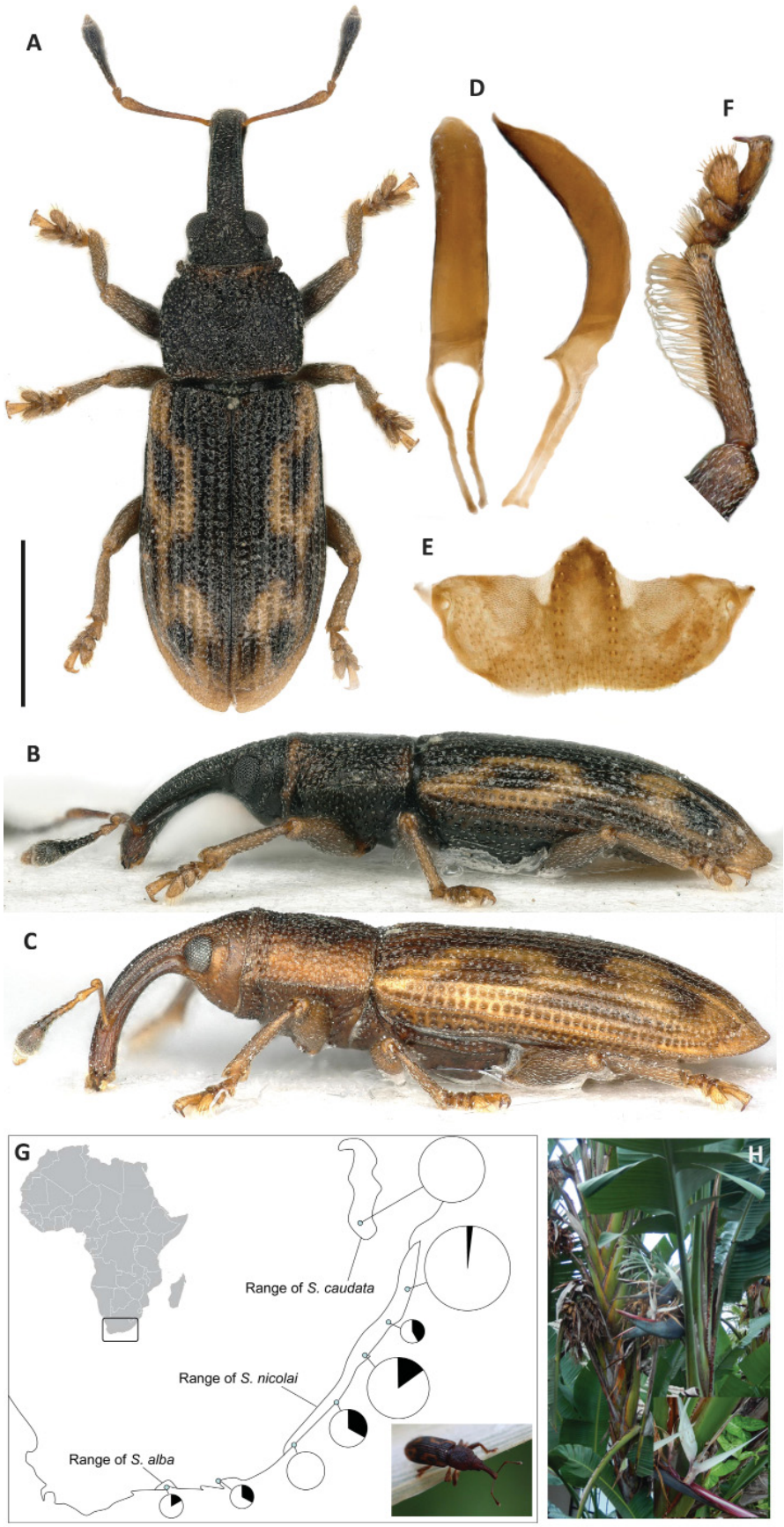
Sexual dimorphism

Females can be distinguished from males by the rostrum which is strongly downcurved in lateral view (Fig. 12C), almost forming a quarter circle (only moderately downcurved in males), and narrow in dorsal view, with only superficial punctures and carinae (rostrum slightly wider with strong punctures and carinae in males). The antennae are inserted at the apical ⅓ of the rostrum (apical ⅕ in males).

Life history

This species develops on *Strelitzia nicolai* (Strelitziaceae), the larvae mine the floral peduncle. Adults stand hidden at the base and between the white petaloid sepals during the day. There is no indication that this species can develop from other species of the genus (SP obs.). *Strelitzia nicolai* flowers show a structure and a production of nectar typical of ornithophily and sunbirds (Passeriformes, Nectariniidae) were identified as the main flower visitors and pollinators of this species (Frost & Frost 1981). Given the pollination activity in *Derelomus* and the general trend of phylogenetic conservatism of this behaviour at genus level (Haran *et al.* 2023a), the implication of this species as a co-pollinator would deserve investigations. Adults were collected from June to December.

Fig. 12 (next page). Morphology, distribution and host plant of *Derelomus strelitziae* Haran sp. nov. **A–B, D–F**. Holotype, ♂ (Margate, Republic of South Africa) (JHAR01561-01, SANC). **C**. Paratype, ♀ (uMhlanga, Republic of South Africa) (JHAR01572-03, CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F**. Right protibia with the internal comb of setae. **G**. Distribution and occupancy (dark segments) of flowers of *Strelitzia nicolai* Regel & Körn. (Strelitziaceae) by *Derelomus strelitziae* across southern Africa, in relation to the natural ranges of *S. nicolai* and the other two arborescent species of *Strelitzia*. Size of charts proportional to the number of inflorescences examined (minimum = 6; maximum = 63; inflorescences only examined if at least one flower open and not entirely dry). **H**. Inflorescences of *Strelitzia nicolai*. Scale bar: A–C = 1 mm; D–F not to scale.


A
D
F
E
B
C
G
Range of S. caudata
Range of S. nicolai
Range of S. alba
H

Distribution

Derelomus strelitziae sp. nov. follows the distribution range of its host along the southern coast of the Republic of South Africa (Eastern Cape, KwaZulu-Natal & Western Cape provinces). Because the host plant of this species is naturally widespread, abundant, and commonly cultivated – and flowers throughout the year – it provided an ideal opportunity to assess the species' occupancy. During a dedicated field trip between May and August 2010, we surveyed as many inflorescences as possible at each location where the host plant, *Strelitzia nicolai*, was present across the genus' distribution range (Fig. 12G). Most *S. nicolai* specimens sampled were from natural populations, except in Plettenberg Bay and Barberton near Mbombela, where cultivated plants were included. The target species was found in all but one locality, with a frequency of occurrence ranging from 2% to 33% of flowers sampled. Its presence in areas where *S. nicolai* is not native indicates that *D. strelitziae* has expanded its range alongside its host. Flowers of *Strelitzia caudata* R.A. Dyer and *S. alba* (L.f.) Skeels could not be sampled during this study.

Remarks

This species is quite polymorphic, in some small males the protibial comb of setae is reduced. Phylogenetic analyses show that *D. strelitziae* sp. nov. together with *D. strangulatus* sp. nov. is one of the two most early diverging species in *Derelomus* (Fig. 33).

Derelomus strangulatus Haran sp. nov.
urn:lsid:zoobank.org:act:A4CE146C-B316-4745-877F-A183CB8EC5D3
Fig. 13

Diagnosis

Derelomus strangulatus sp. nov. can be distinguished based on the following combination of features: body very flat in lateral view, sides of pronotum strongly strangulate anteriorly, sexual dimorphism marked, protibiae of males with an internal comb of erect golden setae, females with a very narrow rostrum, 0.5 × as wide as in males. GenBank accession number for the corresponding DNA barcode: ON553437.

Etymology

The specific epithet refers to the distinctly strangulated apex of the pronotum of this species, which is unique in the genus.

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA • ♂; "Republic of South Africa; WC Prov. [Western Cape Province] Pringle Bay; 28.xi.2019; J. Haran coll." "-34.347 18.826[34°20′49″ S 18°49′34″ E]; *Phoenix reclinata*; JHAR03077_0101; Cirad" "Holotype; *Derelomus*; *strangulatus*; Haran, 2025"; SAMC.

Paratypes

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 7 ♂♂, 14 ♀♀; same collection data as for holotype; CBGP • 1 ♂, 1 ♀; same collection data as for holotype; NHMUK • 1 ♂, 1 ♀; same collection data as for holotype; MNHN • 1 ♀; same collection data as for holotype; SAMC. – **KwaZulu-Natal Province** • 1 ♀; St Lucia, Mission Rk; 28°13′12″ S, 32°14′56″ E; 13 Dec. 1975; *Phoenix reclinate*; E-Y: 971; Endrödy-Younga coll; TMSA.

Description

Male

Measurements. Body length 3.0–4.2 mm.

Color. Body integument pale to dark brown; scutellar shield, median line and sides of pronotum, rostrum, funicle darker; elytra often darker in middle; dorsum with minute recumbent yellowish setae, not contiguous.

Head. Rostrum as long as pronotum in lateral view, moderately and regularly downcurved; in dorsal view 4 × as long as wide, integument densely punctate, forming 5 longitudinal carinae from eyes to antennal insertion, median one interrupted before antennal insertion, prolonged into an elongated smooth and shiny area; covered with short recumbent and non-contiguous whitish setae oriented transversally; antennae inserted at apical ¼ of length; head capsule coarsely punctate in dorsal view, with marked furrow surrounding posterior margin of eyes; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with segment 1 slightly longer and wider than segment 2, 3–7 transverse, 5–7 and basal half of club usually darker.

Pronotum. Wider than long (W : L ratio: 1.20), widest in basal ½ of length, slightly narrower there than elytra at humeral angles; sides subparallel in basal ½, convex in apical ½, strongly strangulate near apical margin, constriction as wide as width of scape at apex; integument densely and irregularly punctate, space between punctures smooth, dull; setae only visible laterally, very small and recumbent, central area glabrous.

Elytra. Sides subparallel in basal ¾ of length (W : L ratio: 0.65); humeri raised; apex jointly rounded; striae with punctures 4 × narrower than interstriae; interstriae convex, convexity slightly more marked on interstriae 5–6; scutellar shield rounded, glabrous, integument shiny.

Abdomen. Underside with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 6–7 granules ⅖ × as long as median line.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward near apex, internal margin straight, carinate, bearing a comb of elongated golden setae as long as largest width of protibiae, extending from basal ¼ to apex; meso and metatibiae lacking comb, downcurved in apical ⅕; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.23), 2 × as long as apodemes, widest near base; sides subparallel in dorsal view, slightly converging apicad in basal ⅔ of length, convex in apical ⅓, apex truncate; in lateral view curvature stronger in basal ½ of length, width narrowing apicad in apical ⅓ (Fig. 13D).

Sexual dimorphism

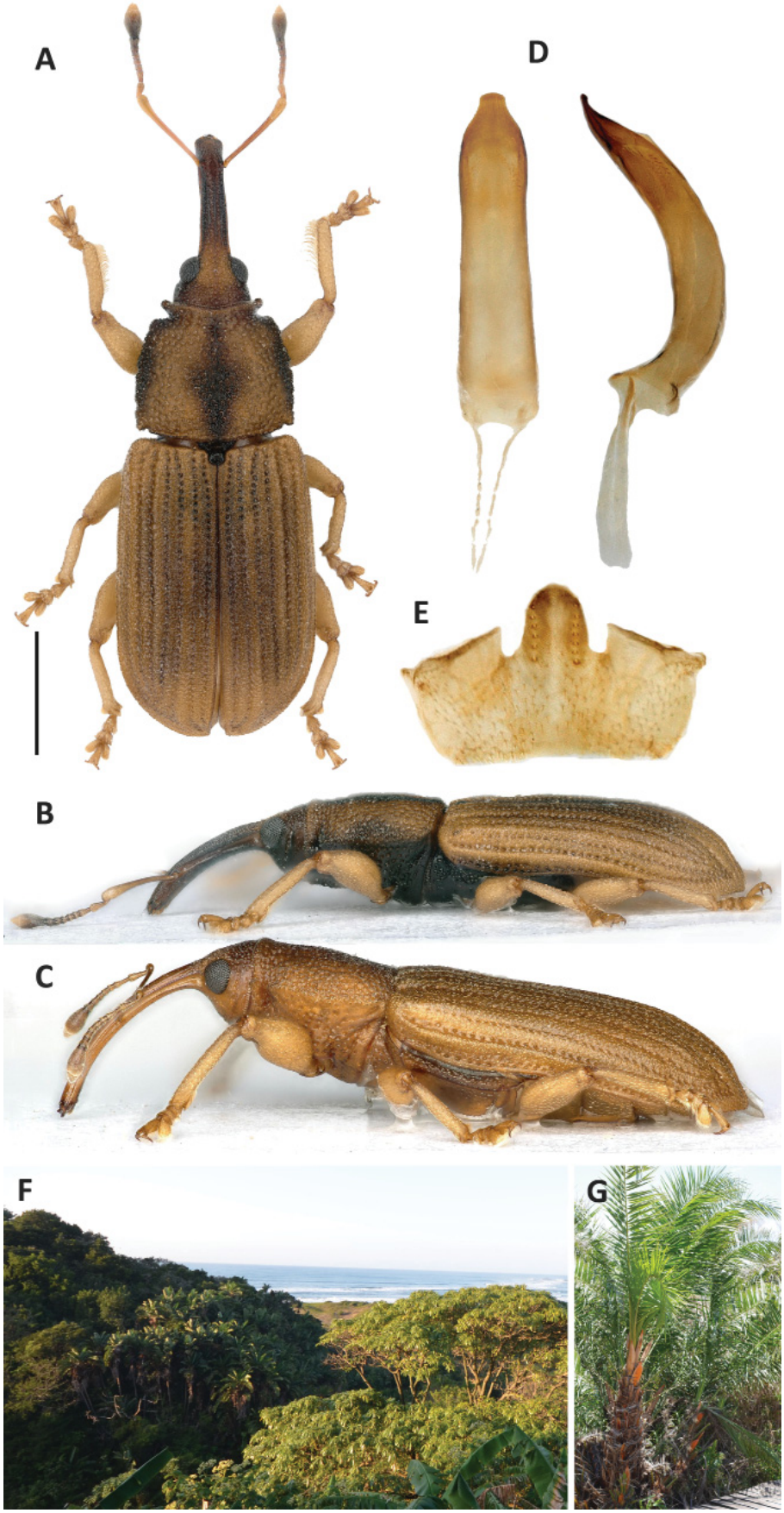
See section Diagnosis for the main distinguishing features. The rostrum of females is also longer and more downcurved in lateral view than in males. The antennae are inserted near the middle of the length in females (at apical ¼ in males).

Life history

Derelomus strangulatus sp. nov. was collected in several localities on the inflorescences of the wild date palm *Phoenix reclinata* (Arecaceae), which probably constitutes its host plant. Adults were collected in November and December.

Distribution

This species is endemic to the Republic of South Africa in our current knowledge. It was found near the coast in KwaZulu-Natal and Western Cape provinces. The population in the Western Cape is out of the natural range of *P. reclinata* and probably results from an introduction of this weevil with its host widely planted for ornamental purpose.


A
D
E
B
C
F
G

Remarks

Phylogenetic analyses show that *D. strangulatus* sp. nov. together with *D. strelitziae* sp. nov. is one of most early diverging species in *Derelomus* (Fig. 33).

Derelomus zonatus Marshall, 1950
Fig. 14

Derelomus zonatus Marshall, 1950: 263.

Diagnosis

This species belongs to the *D. nigrovariegatus* group, characterised by the combination of a glabrous lateral carina on the pronotum, the large body length (generally beyond 3 mm) and the prosternum at least partly dark brown. Within this species group, it can be distinguished by the contrasting transverse dark band on the elytra and the prosternum with dark spots on the pale brown integument. The narrow space between the granules of the stridulatory plate seems diagnostic for this species (although this feature has not been examined for *D. nigrovariegatus*).

Material examined

Lectotype (here designated)
DEMOCRATIC REPUBLIC OF CONGO • ♂; "Holotypus; *zonatus* ♂; Mrshl.[red label]" "Musée du Congo; Rutshuru[1°11′06″ N, 29°27′14″ E]; -IV-1937; J. Ghesquière; 3966" "R. DET; AA5575" "Récolté dans; pulpe fr. *Phoenix*; *reclinata*" "*Derelomus*; *zonatus*, Mshl.; TYPE♂" "LECTOTYPE ♂; *Derelomus*; *zonatus*; Marshall, 1950; Haran des. 2025"; RMCA.

Paralectotypes
DEMOCRATIC REPUBLIC OF CONGO • 1 ♀; Rutshuru; 1°11′06″ N, 29°27′14″ E; Apr. 1937; J. Ghesquière coll.; sampled in fruit pulp of *Phoenix reclinata*; 3966; RMCA • 1 ♂, 1 ♀; same collection data as for preceding; NHMUK.

Other material
UGANDA • 1 ♀; Kawanda; 0°25′30″ N, 32°32′24″ E; 14 Apr. 1943; T.H.C. Taylor; NHMUK.

Redescription (♂)

Measurements. Body length 3.3 mm.

Color. Body integument pale brown, head capsule and rostrum, antennae and sometimes apex of femora brown; dark pattern on dorsum generally forming spots on sides of pronotum, a large transverse band near middle of length of elytra as well as at base and apex of even interstriae; dorsum with minute whitish setae, not contiguous, forming 2–3 rows on each interstria.

Head. Rostrum slightly longer than pronotum in lateral view, moderately and regularly downcurved; in dorsal view 3.5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae from eyes to antennal insertion, median carina more raised than others and split in two before antennal insertion;

Fig. 13 (preceding page). Habitus, habitat and host plant of *Derelomus strangulatus* Haran sp. nov. **A–B, D–E**. Holotype from Pringle Bay (Western Cape Province of the Republic of South Africa) (JHAR03077-0101, SAMC). **C**. Paratype, ♀ (same locality) (JHAR03077-11 SAMC). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F–G**. Coastal subtropical forest of the KwaZulu-Natal Province of the Republic of South Africa, biotope for *Phoenix reclinate* Jacq., host of *Derelomus strangulatus*. Scale bar: A–C = 1 mm; D–E not to scale.

covered with minute recumbent and non-contiguous whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view; eyes convex, exceeding moderately lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, equal in length to 2+3, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.28), widest near basal ⅓ of length, slightly narrower there than elytra at humeral angles (0.8 ×); sides convex, with distinct constriction slightly beyond middle of length, abruptly converging in apical ¼, apical constriction as wide as width of scape at apex; integument densely punctate, space between punctures irregular, dull, as wide as or narrower than diameter of a puncture on dorsum; white setae shorter than diameter of punctures.

Elytra. Sides slightly convex, widest near middle of length (W : L ratio: 0.70); humeri raised; apex rounded, not contiguous; striae with punctures 2 × narrower than width of interstriae; interstriae slightly convex, 5 more so, 9 raised into carina; scutellar shield rounded, similar to integument of elytra, glabrous.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 14–17 granules, about ½ × as long as median line, not reaching apex of median area (Fig. 14F), space between granules as wide as diameter of a granule.

Legs. Profemora thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae bisinuate, bearing comb of elongated golden setae about as long as largest width of protibiae, extending over apical half (Fig. 14E); meso and metatibiae lacking comb of elongated setae; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.25), about 3 × as long as apodemes; sides straight in dorsal view, widest near middle of length, converging apicad from apical ⅖, apex short acuminate spatula; in lateral view curvature stronger in basal ½ of length, width narrowing apicad from middle of length, apex bisinuate (Fig. 14D).

Sexual dimorphism

Females can be distinguished from males by the rostrum, which is longer in lateral view, distinctly exceeding the length of the pronotum (Fig. 14C) and narrower in dorsal view. The antennae are inserted slightly before the apical ¼ of the rostrum length.

Life history

Adults of this species were found in fruit pulp of *Phoenix reclinata*. This lifestyle is unusual for species of *Derelomus*, there is no clear indication that this palm is the host for larvae in this species. Adults were collected in April.

Distribution

In our current knowledge, this species is restricted to the Eastern part of the Democratic Republic of Congo and to Uganda.

Remarks

In the collection housed at RMCA, a specimen from Rutshuru labelled "*Derelomus zonatus* Mshl." and bearing a red type label was located. This specimen is designated as the lectotype for *Derelomus zonatus* Marshall, 1950 [here designated] and was labelled accordingly. Other specimens of the series were labelled as paralectotypes.

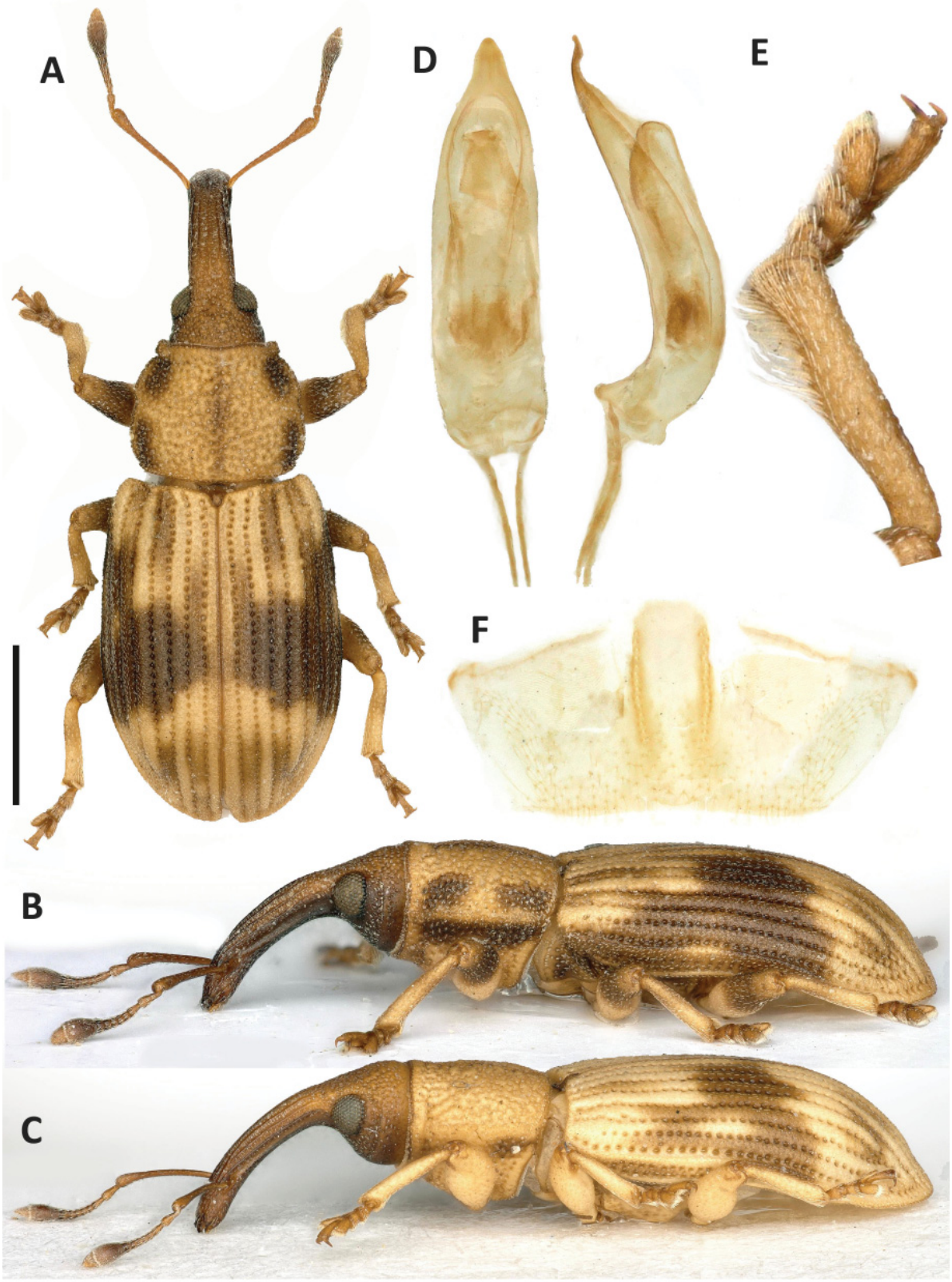


Fig. 14. Habitus of *Derelomus zonatus* Marshall, 1950. **A–B, D–F**. Lectotype, ♂ (Democratic Republic of Congo). (RMCA). **C**. Paralectotype, ♀ (same locality) (RMCA). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Protibia of male. **F**. Stridulatory plate. Scale bar: A–C = 1 mm; D–F not to scale.

Derelomus brunneus Haran sp. nov.
urn:lsid:zoobank.org:act:8A94696C-021D-42F7-96F9-544D9F9D3C03
Fig. 15

Diagnosis

Within the *D. nigrovariegatus* species group, this species can be distinguished by the uniformly brown integument (Fig. 15A). It is closest to *D. ater* Marshall, 1950, but the latter species has a black and shiny integument, and a rostrum less downcurved in lateral view (Fig. 16B–C).

Etymology

The specific epithet refers to the uniformly dark brown integuments of this species.

Material examined

Holotype

DEMOCRATIC REPUBLIC OF CONGO • ♂; "Musée du Congo; Rutshuru[1°11′06″ N, 29°27′14″ E]; -VIII-1937; J. Ghesquière; 4824" "Holotype; *Derelomus*; *brunneus*; Haran, 2025", RMCA.

Paratypes

DEMOCRATIC REPUBLIC OF CONGO • 3 ♂♂, 2 ♀♀; Rutshuru; 1°11′06″ N, 29°27′14″ E; Aug. 1937; J. Ghesquière coll.; male inflorescences of *Phoenix reclinata*; 4824; RMCA • 1 ♂, 1 ♀; data as for preceding; CBGP.

Description (♂)

Male

Measurements. Body length 3.0–4.0 mm.

Color. Body integument uniformly brown; dorsum with minute recumbent yellowish setae, not contiguous, not concealing the integument.

Head. Rostrum slightly longer than pronotum in lateral view (1.05×), strongly and regularly downcurved, forming quarter of circle; in dorsal view 5.5× as long as wide, integument densely striate punctate, forming 5 longitudinal carinae from eyes to antennal insertion, median one wider, smooth and shiny; covered with minute, almost invisible, non-contiguous whitish setae; antennae inserted near apical ⅓ of length; head capsule coarsely punctate in dorsal view; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with segment 1 and 2 subequal in length, 3–7 transverse, segment 1 of club as long as funicular segments 3–7.

Pronotum. Wider than long (W : L ratio: 1.25), widest slightly before ½ of length, as wide there as elytra at humeral angles; sides convex, apical constriction as long as width of scape at apex; apical margin ⅔ as wide as basal margin; integument densely and irregularly punctate, space between punctures micropunctate, reticulate, shiny, usually narrower than diameter of punctures; setae minute, hardly visible, integument glabrous in appearance.

Elytra. Moderately elongate (W : L ratio: 0.71), sides subparallel in basal ⅔ of length; humeri raised; apex rounded, notched at level of suture; striae with punctures ½ to ⅓ as wide as width of interstriae; interstriae convex, interstria 9 forming a carina; scutellar shield rounded, dark brown, glabrous, punctate.

Abdomen. Underside with short recumbent whitish setae, not contiguous. Stridulatory plate lacking distinct lines of granules, only with 3–4 blunt and hardly visible granules on basal ½ the median area (Fig. 15F).

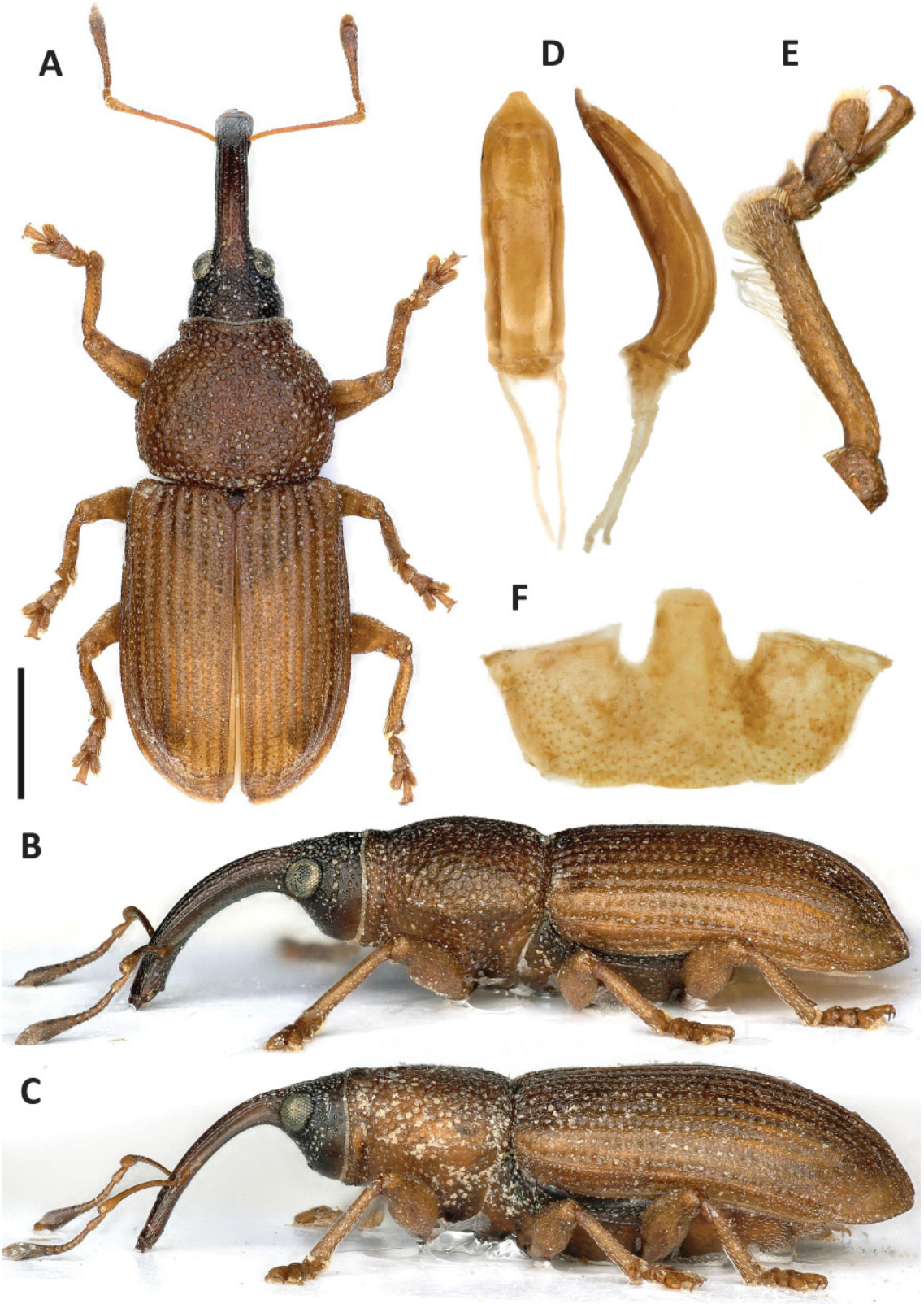


Fig. 15. Habitus of *Derelomus brunneus* Haran sp. nov. **A–B, D–F**. Holotype, ♂ (Democratic Republic of Congo) (RMCA). **C**. Paratype, ♀ (same locality) (CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Protibia of male. **F**. Stridulatory plate. Scale bar: A–C = 1 mm; D–F not to scale.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical ⅓; internal margin of protibiae bisinuate, bearing in apical ½ comb of elongated golden setae as long as largest width of protibiae; meso and metatibiae lacking comb; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.28), 1.3 × as long as apodemes, widest near apical ⅓; sides straight, slightly widening from base to apex, converging in apicad ¼, apex rounded; in lateral view curvature stronger in basal ⅓ of length, width widening from base to basal ⅓, then narrowing apicad (Fig. 15D).

Sexual dimorphism

The rostrum of females is narrower and less downcurved than in males in lateral view. The antennae are inserted near the apical ⅓ of the length in females (near apical ¼ in males; Fig. 15B–C).

Life history

The only known series of this species was collected on male inflorescences of *Phoenix reclinata* (Arecaceae).

Distribution

In our current knowledge, this species is only known from the type locality in the Democratic Republic of Congo. Its putative host is widely distributed across continental Africa.

Derelomus ater Marshall, 1950
Fig. 16

Derelomus ater Marshall, 1950: 262.

Diagnosis

This species can be distinguished by its uniformly black and shiny integument. It is closest to *D. brunneus* sp. nov., but shows a rostrum less downcurved in lateral view. Body ratios, male genitalia and protibiae also enable to distinguish these species (Figs 15D, 16D).

Material examined

Lectotype (here designated)
DEMOCRATIC REPUBLIC OF CONGO • ♂; "Holotypus; *ater* ♂; Mrshl. [red label]" "Récolté dans fl.♂ *Phoenix*; *reclinata*" "Musée du Congo; Rutshuru[1°11′06″ N, 29°27′14″ E]; -VIII-1937; J. Ghesquière; 4823" "R. DET. Y. 5575" " *Derelomus*; *ater*. Mshl.; Type ♂" "LECTOTYPE ♂; *Derelomus*; *ater*; Marshall, 1950; Haran des. 2025"; RMCA.

Paralectotypes
DEMOCRATIC REPUBLIC OF CONGO • 2 ♂♂, 6 ♀♀; Rutshuru, Rutshuru; 1°11′06″ N, 29°27′14″ E; Aug. 1937; J. Ghesquière coll.; in male inflorescences of *Phoenix reclinata*; 4823; RMCA • 4 ♀♀; same collection data as for preceding; NHMUK • 1 ♂; same collection data as for preceding; CBGP.

Redescription (♂)

Measurements. Body length 2.0–3.1 mm.

Color. Body integument uniformly dark brown or reddish brown, shiny; scape and first funicular segments reddish; dorsum with minute whitish setae, glabrous in appearance.

Head. Rostrum slightly longer than pronotum in lateral view, moderately and regularly downcurved; in dorsal view 5.5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae from eyes to antennal insertion, covered with minute recumbent and non-contiguous whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, equal in length to 2+3, 3–4 isodiametric, 5–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.20), widest near middle of length, slightly narrower there than elytra at humeral angles; sides convex, abruptly converging in apical ¼, apical constriction as wide as width of scape at apex; integument with scarce punctures, space between punctures smooth, shiny, generally larger than diameter of a puncture on dorsum; the minute white setae more visible laterally, about as long as width of punctures.

Elytra. Sides subparallel or slightly convex, widest near ⅗ of length (W : L ratio: 0.64); humeri raised; apex rounded, not contiguous; striae with punctures narrower than width of interstriae; interstriae flat, 9 raised into carina; scutellar shield rounded, similar to integument of elytra, glabrous.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 4 granules, about ½ × as long as median line (Fig. 16F).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae bisinuate, bearing a comb of elongated golden setae about as long as largest width of protibiae, extending over apical ⅓ (Fig. 16E); meso and metatibiae lacking comb of elongated setae; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.30), about as long as apodemes; sides straight in dorsal view, widest base, converging moderately and regularly apicad, apex rounded; in lateral view curvature stronger in basal ½ of length, width narrowing apicad from basal ⅓ (Fig. 16D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is longer in lateral view, distinctly exceeding the length of the pronotum (Fig. 16C) and narrower in dorsal view. The antennae are inserted on the apical ⅖ of the rostrum length, ¼ in males).

Life history

Specimens used to describe this species were collected on male inflorescences of *Phoenix reclinata* (Arecaceae), which probably constitutes the larval host.

Distribution

Derelomus ater is only known from the type locality in the Eastern Democratic Republic of Congo.

Remarks

In the collection housed at RMCA, a specimen from Rutshuru labelled "*Derelomus ater* Mshl." and bearing a red type label was located. This specimen is designated as the lectotype for *Derelomus ater* Marshall, 1950 [here designated] and was labelled accordingly. Other specimens of the series were labelled as paralectotypes.

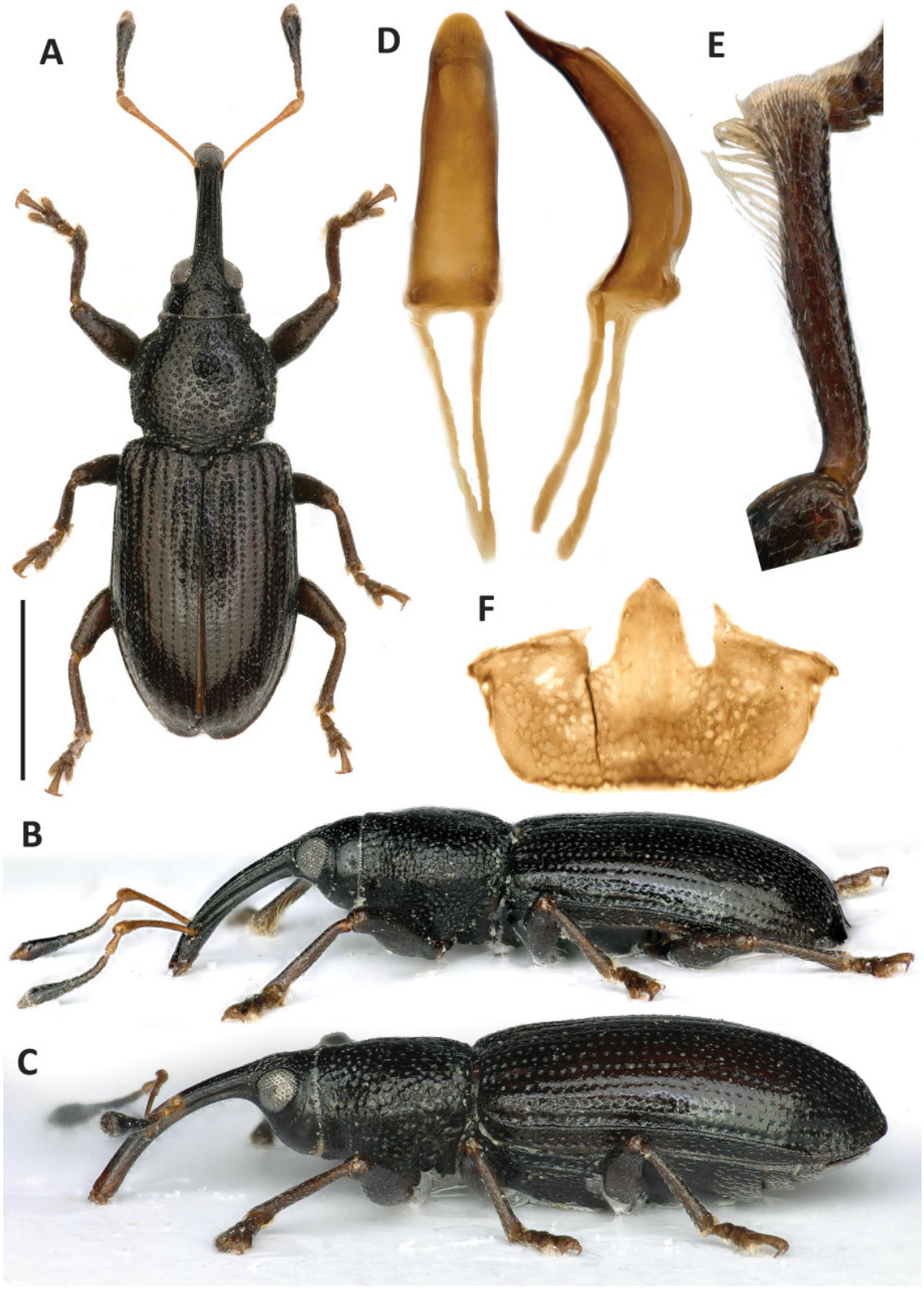


Fig. 16. Habitus of *Derelomus ater* Marshall, 1950. **A–B, D–F**. Paralectotype, ♂ (Democratic Republic of Congo) (RMCA). **C**. Paralectotype, ♀ (same locality) (RMCA). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Protibia of male. **F**. Stridulatory plate. Scale bar A–C = 1 mm; D–F not to scale.

Derelomus nigrovariegatus Hustache, 1936
Fig. 17

Derelomus nigrovariegatus Hustache, 1936: 484.

Diagnosis

This species belongs to the *D. nigrovariegatus* group, characterised by the combination of a glabrous lateral carina on the pronotum, the large body length (generally beyond 3 mm) and the prosternum at least partly dark brown. Within this species group, it can be distinguished by the moderately convex eyes in dorsal view, slightly exceeding the lateral curve of the head capsule (Fig. 17A), while they are distinctly convex in other species.

Material examined

Lectotype (here designated)
ETHIOPIA • ♀; "Type [red label]" "TYPE [red label]" "Abyssinia; Mt. Chillálo,; Forest.[7°54′25″ N, 39°13′52″ E]; circa 8,500ft.; 24.xi.1926; Dr. H. Scott" "Brit. Mus.; 1927-127" "specimen figured" "♂" "Box 19" "*Derelomus*; *nigrovariegatus*; m.; Hustache det." "Lectotype ♀; *Derelomus*; *nigrovariegatus*; Hustache, 1936; J. Haran des. 2025"; NHMUK.

Paralectotypes
ETHIOPIA • 1 ♀; Chilalo Mountain; 7°54′25″ N, 39°13′52″ E; 24 Nov. 1926; H. Scott coll.; NHMUK • 1 ♀; Djem-Djem forest [Guinchi]; 9°03′00″ N, 38°12′00″ E; 22 Sep. 1926; H. Scott coll.; "var. enfumée" [brown variety]; NHMUK.

Redescription (♀)

Measurements. Body length 4.5 mm.

Color. Body integument dark brown, scape and base of funicle, central area of elytra and humeral angles pale brown; dorsum with minute downcurved whitish setae, contiguous or subcontiguous, forming 1–3 rows on interstriae.

Head. Rostrum longer than pronotum in lateral view (1.2×), moderately and regularly downcurved; in dorsal view about 5× as long as wide, integument densely punctate, forming 5 longitudinal carinae from eyes to antennal insertion, median carina more raised than others and split in two before antennal insertion; covered with minute recumbent and non-contiguous whitish setae oriented transversally; antennae inserted near apical ¼ of length; head capsule coarsely punctate in dorsal view; forehead with suberect setae longer and more condensed near eyes; eyes moderately convex, slightly exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2× as long as wide, equal in length to 2+3, 3–6 isodiametric, 7 transverse.

Pronotum. Wider than long (W : L ratio: 1.30), widest near base, slightly narrower there than elytra at humeral angles (0.8×); sides slightly convex, with a distinct constriction beyond middle of length, moderately and regularly converging apicad from basal ¼ of length, apical constriction as wide as width of scape at apex; integument coarsely punctate, space between punctures irregular, dull, narrower or wider than diameter of a puncture on dorsum; white setae as long as diameter of punctures.

Elytra. Sides subparallel in basal ⅖ of length (W : L ratio: 0.61); humeri raised; apex rounded, not contiguous; striae with punctures 2× narrower than width of interstriae; interstriae slightly convex, 9 raised into carina; scutellar shield rounded, similar to integument of elytra, with long whitish setae not concealing integument.

Abdomen. Underside covered with minute recumbent whitish setae, subcontiguous.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae bisinuate; claws simple.

Fig. 17. *Derelomus nigrovariegatus* Hustache, 1936, holotype, ♀ from Ethiopia (NHMUK). **A**. Habitus in dorsal view. **B**. Habitus in lateral view. Scale bar: 1 mm.

Life history

Unknown.

Distribution

Ethiopia.

Remarks

In the collection housed at NHMUK, a specimen from Mount Chillalo labelled "*Derelomus nigrovariegatus* m." by the hand of Hustache was located. This specimen is designated as the lectotype for *Derelomus nigrovariegatus* Hustache, 1936 [here designated] and was labelled accordingly. Contrary to what is stated in the description, this specimen is a female. Other specimens of the series were labelled as paralectotypes.

***Derelomus trinotatus* group**

Derelomus trinotatus Haran sp. nov.
urn:lsid:zoobank.org:act:B6525170-681A-490F-94D1-EBE34A646806
Fig. 18

Diagnosis

This species can be distinguished by the contrasting black head and the three dark spots on the dorsum. The very acute apex of the penis in dorsal view is also unique among the *Derelomus* of the studied area. GenBank accession numbers for the corresponding DNA barcode: PV698483–84.

Etymology

The species is named in reference to the three dark spots on its dorsum. This peculiar pattern is specific to this species.

Material examined

Holotype

CAMEROON • ♂; "Museum Paris; CAMEROUN; Yaoundé [3°51′50″ N 11°27′22″ E]; Dr Noël 1922" "Holotype. *Derelomus*; *trinotatus*; Haran 2025"; MNHN.

Paratypes

CAMEROON • 1 ♀; Yaoundé, Nkolbisson Research station; 3°51′50″ N, 11°27′22″ E; 29 Nov. 1966; P.B. De Miré coll.; light trap; JHAR07436; CBGP • 1 ♀; sampling data as for preceding; 17 Nov. 1966; JHAR07437; CBGP • 1 ♀; sampling data as for preceding; 6 Jun. 1966; JHAR07438; CBGP.

GABON • 1 ♂, 1 ♀; La Lopé National Park; 0°11′29″ N, 11°36′36″ E; 1 Nov. 2023; J. Haran and R. Allio coll.; light trap (Lepiled) in canopy (30 m) 9:30–10 pm; JHAR06422-23; CBGP.

LIBERIA • 2 ♀♀; Suakoko; 6°59′28″ N, 9°35′07″ W; 13 Jan. 1952; Blickenstaff coll.; USNM.

NIGERIA • 1 ♀; Ibadan; 7°21′58″ N, 3°54′58″ E; 26 Sep. 1956; at light; G.H. Caswell coll.; NHMUK • 1 ♂, 1 ♀; Ife; 7°28′13″ N, 4°32′24″ E; 11 Jan. 1971; J.T. Medler; NHMUK • 1 ♀; same locality as for preceding; 20 Jan. 1970; J.T. Medler; NHMUK.

Description (♂)

Measurements. Body length 3.0–3.5 mm.

Color. Body integument pale brown, head, club and scutellar shield dark brown; pattern on dorsum forming large spot at base on pronotum, near scutellar shield and two large spots near middle of elytral length, between interstriae 2–7; dorsum with minute whitish setae, not contiguous, forming 2–3 rows on interstriae.

Head. Rostrum slightly shorter than pronotum in lateral view (0.9 ×), moderately downcurved, curvature stronger in basal ⅓ of length; in dorsal view about 4 × as long as wide, integument densely punctate, forming 5 longitudinal carinae from eyes to antennal insertion, median carina similar to others, split in two before antennal insertion; covered with minute recumbent and non-contiguous whitish setae oriented transversally; antennae inserted slightly beyond apical ¼ of length in lateral view; head capsule coarsely punctate in dorsal view; forehead glabrous; eyes strongly convex, strongly exceeding lateral curve of head capsule in dorsal view; antennal funicle with segments 1 and 2 subequal in length, first 1.5 × as long as wide, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.45), widest near middle of length, slightly narrower there than elytra at humeral angles (0.8 ×); sides strongly convex, with distinct constriction followed by tooth beyond middle of length, moderately and regularly converging apicad from apical ⅓ of length, apical constriction narrower than width of scape at apex; integument coarsely punctate, space between punctures smooth, shiny, micropunctate, narrower than diameter of a puncture; white setae in each puncture shorter than diameter of punctures on dorsum, almost invisible.

Elytra. Short (W : L ratio: 0.82); sides convex, widest near middle of length; humeri raised; apex rounded, not contiguous; striae with punctures 1–3 × narrower than width of interstriae; interstriae flat, 9 raised into carina; scutellar shield rounded, with short whitish setae not concealing integument.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with series of about 13–15 granules, forming slightly curved lines about 0.5 × the length of median area; apex of median area rounded (Fig. 18E).

Legs. Profemora thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae bisinuate; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.25), slightly shorter than apodemes, widest near base in dorsal view; sides convex, widening moderately from base to ½ of length and then converging apicad, apex acuminate; in lateral view curvature stronger in basal ½ of length, width narrowing apicad from basal ⅓ (Fig. 18D).

Sexual dimorphism

The rostrum of females is narrower and less downcurved than in males in lateral view. The antennae are inserted near the apical ⅓ of the length in females (slightly beyond apical ¼ in males; Fig. 18B–C).

Life history

Adults were collected with a UV light trap in the canopy in Gabon (LepiLED). They are active in January, June, September and October.

Distribution

Cameroon, Gabon, Liberia, Nigeria.

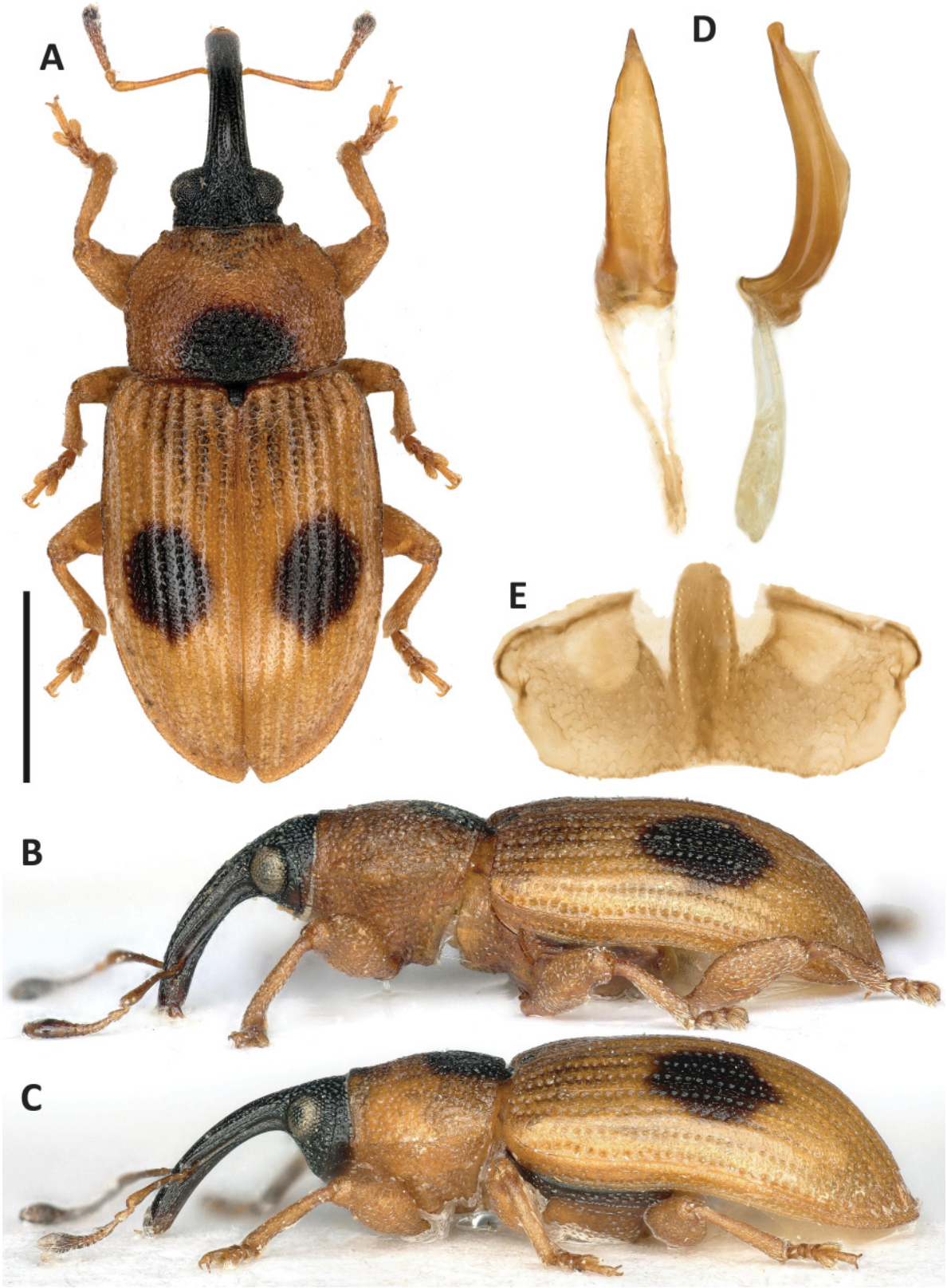


Fig. 18. Habitus of *Derelomus trinotatus* Haran sp. nov. **A–B, D–E**. Holotype, ♂ (Cameroon) (MNHN). **C**. Paratype, ♀ (Cameroon) (JHAR07436-01, CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

***Derelomus fasciatus* group**

Derelomus fasciatus Hartmann, 1904
Fig. 19

Derelomus fasciatus Hartmann, 1904: 404.

Derelomus fasciatus – Haran *et al*. 2022a (phylogenetic relationships); 2023a (life history).

Diagnosis

This species can be distinguished by its narrow body, the pronotum being isodiametric and the elytra elongate (W : L ratio: 0.6), its long and narrow rostrum, longer than the pronotum in lateral view, and simple claws. In most specimens, the dark pattern on the elytra forms a spot at the base of each elytron and a bisinuate transverse strip near the middle of the length. GenBank accession numbers for the corresponding DNA barcodes: OK188823/OK283507/ON553434–35.

Material examined

Lectotype (here designated)
TANZANIA • ♀; "Usambara [Tanzania]; Kraatz.[Ernst Gustav Kraatz, german entomologist]" "1; 04" "*Derelomus*; *fasciatus* Htm" "SYNTYPUS" "Samml K. F. Hartmann; Ankauf 1941.1" "Staatl. Museum für; Tierkunde Dresden" "LECTOTYPE ♀; *Derelomus*; *fasciatus*; Hartmann, 1904; Haran des. 2025"; MTD.

Paralectotypes
TANZANIA • 1 ♀; Usambara mountains; 4°44′56″ N, 38°27′00″ E; E.G. Kraatz coll.; MTD • 2 ♀♀; Usambara mountains; 4°44′56″ N, 38°27′00″ E; E.G. Kraatz coll.; "Ankauf, 1900, J. Faust coll."; MTD.

Other material
REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 2 ♂♂, 3 specs (preserved in ethanol); Gansbaai, Grootbos Private Nature Reserve; 34°32′24″ S, 19°29′25″ E; 10 Aug. 2018; J. Haran coll.; beating flowers of *Searsia glauca* (Thunb.)Moffett (Anacardiaceae); JHAR01252; CBGP • 2 ♂, 1 spec. (preserved in ethanol); Malgas; 34°18′00″ S, 20°34′48″ E; 26 Aug. 2018; J. Haran coll.; beating flowers of *Searsia* sp.; JHAR01476; CBGP.

TANZANIA • 1 ♀; same collection data as for lectotype; MTD • 3 ♂♂; Ukerewe Island; 2°02′35″ S, 33°00′18″ E; P.A. Conrade coll.; NHMUK.

Redescription (♂)

Measurements. Body length 2.0–2.2 mm.

Color. Body integument pale brown; pattern on dorsum forming transverse and curved dark band near middle of length of elytra reaching sides laterally and dark spot at base of interstriae 4–5 of each elytron; dorsum glabrous.

Head. Rostrum longer than pronotum in lateral view (1.3×), almost straight in lateral view; in dorsal view about 5.5× as long as wide, integument densely and finely punctate, forming 5 superficial longitudinal carinae from eyes to antennal insertion, median carina similar to others, split in two before antennal insertion; covered with scattered minute recumbent and non-contiguous whitish setae oriented transversally; antennae inserted near apical ⅕ of length in lateral view; head capsule coarsely punctate in dorsal view; forehead glabrous; eyes convex, strongly exceeding lateral curve of head capsule in dorsal view; antennal funicle with segment 1 as long as 2+3, 1.5× as long as wide, 3–4 isodiametric, 5–7 transverse.

Pronotum. Moderately transverse (W : L ratio: 1.15), widest near apical ⅓ of length, slightly narrower there than elytra at humeral angles (0.8 ×); sides convex, widening regularly apicad in basal ⅔ and converging abruptly in apical ⅓, lateral carina smooth, lacking constriction or tooth, apical constriction shallow narrower than width of scape at apex; integument punctate, space between punctures dull, micropunctate and reticulate, narrower or wider than diameter of a puncture.

Elytra. Elongate (W : L ratio: 0.45); sides subparallel in basal ½, widest near middle of length; humeri raised; apex rounded, not contiguous; striae with punctures 2–3 × narrower than width of interstriae; interstriae slightly convex, 9 raised into carina; scutellar shield rounded, with short whitish setae not concealing integument.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with series of 4–5 granules, forming lines converging apicad, as long as 0.75 × the length of median area; apex of median area rounded (Fig. 19E).

Legs. Profemora thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae almost straight, curved inward in apical ⅕ only; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.20), about 2 × as long as apodemes, widest near base in dorsal view; sides straight, converging moderately and regularly apicad, apex forming short and rounded spatula; in lateral view curvature stronger in basal ½ of length, width narrowing apicad from basal apical ¼ of length, apex curved upward (Fig. 19D).

Sexual dimorphism

The rostrum of females is distinctly longer (1.6 × as long as pronotum in lateral view) and more downcurved than in males. The antennae are inserted near the apical ⅓ of the length in females (near ⅕ in males; Fig. 19B–C).

Life history

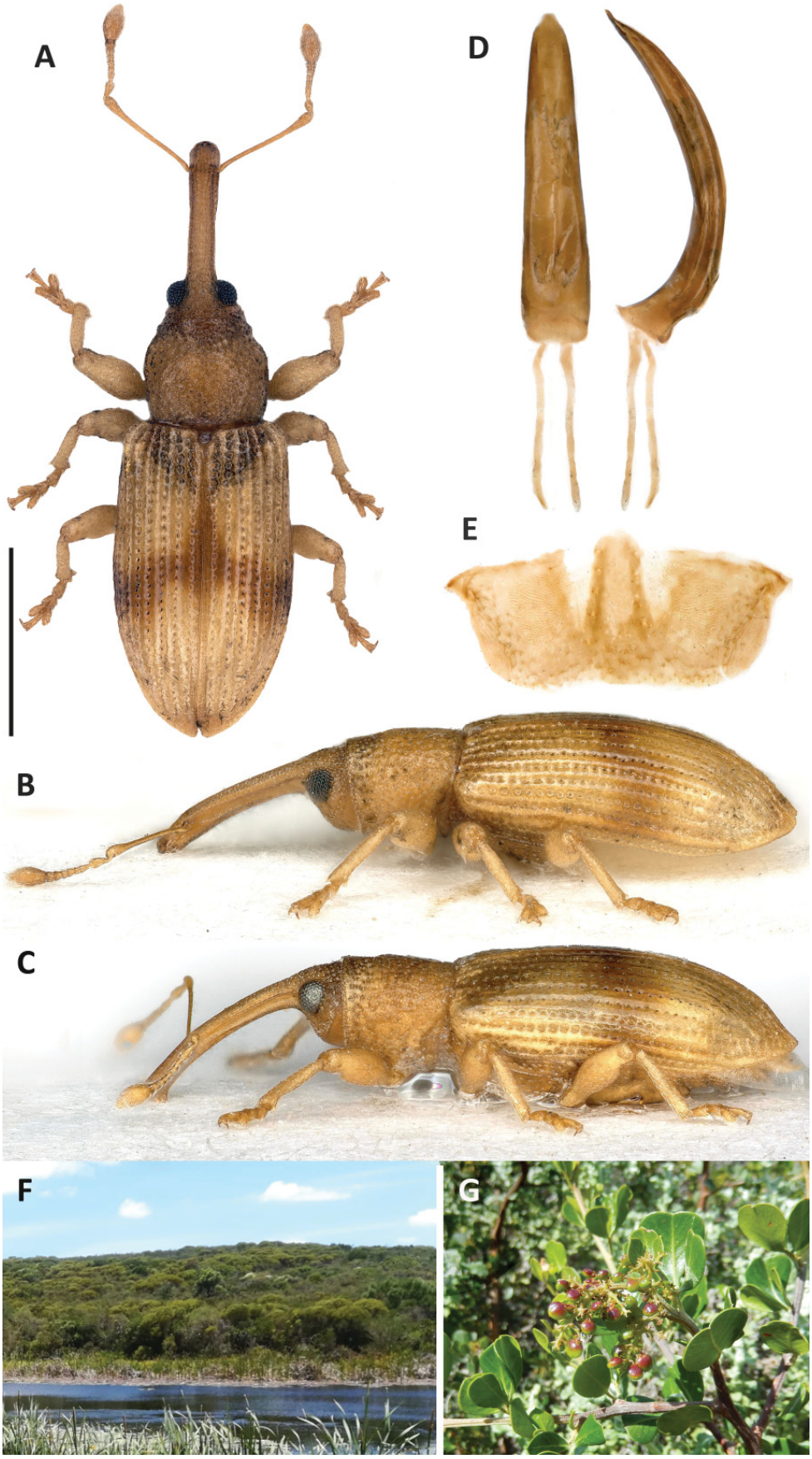
This species was found on inflorescences and infructescences of *Searsia glauca* and an unidentified *Searsia* (Anacardiaceae) in the Western Cape Province of the Republic of South Africa. *Searsia* in anthesis tends to attract a lot of insects, including weevils, not always associated with this bush at larval stages. However, several observations suggest that this species is restricted to *Searsia*: it was collected during daytime and at night on this plant only, at several sites and never recorded on flowers of the surrounding vegetation despite intensive search. Also, the specimens collected in Gansbaai consisted of ill-sclerotized and thus recently emerged individuals likely performing a maturation feeding on their host.

Distribution

South coast of the Western Cape Province of the Republic of South Africa, and Tanzania.

Remarks

In the Faust-Hartmann collection housed at MTD, a syntypic series of four female specimens under the name *Derelomus fasciatus* and bearing the labels “Usambara” and “Kraatz” as reported in the original description was located. One of the specimens of this series was designated as the lectotype for *Derelomus fasciatus* Hartmann, 1904 [here designated] and was labelled accordingly. *Derelomus fasciatus* as treated here may be a complex of closely related species or lineages in process of speciation. The Tanzanian and South African populations show slight differences (based on the very few specimens available); in the latter, the rostrum is slightly shorter and less downcurved, the pronotum is more convex laterally and the antennal club is pale brown. Also, a single female from South Africa (JHAR01252) exhibits a contrasting body and rostrum shape with specimens of the same series. This specimen likely corresponds to a distinct species.


A
D
E
B
C
F
G

***Derelomus languidus* group**

Derelomus languidus Fåhraeus, 1844
Fig. 20

Derelomus languidus Fåhraeus, 1844: 93.
Derelomus rectirostris Hustache, 1937: 218. **Syn. nov.**

Prosoestus rectirostris – Lepesme 1947 (key, biology).

Diagnosis

Derelomus languidus can be distinguished by its very long rostrum, almost (♂) or equal (♀) to 2 × the length of pronotum in lateral view, and the uniform pale brown color of the integuments, or only with darker shadings on the sides and at the apex of the elytra. This species is similar in size and general aspect to *D. strangulatus* sp. nov., but in the latter the side of the pronotum is deeply strangled apically (only narrowed in *D. languidus*).

Material examined

Lectotype of *Derelomus languidus* Fåhraeus, 1844 (here designated)
REPUBLIC OF SOUTH AFRICA • ♂; "TYPUS [red label]" "cap. b. sp. [cape of good hope]; Drège" "LECTOTYPE ♂; *Derelomus*; *languidus*; Fåhraeus, 1844; Haran des. 2025" "*Derelomus*; *languidus*; Fåhraeus 1844; Haran des. 2025" "Naturhistorika Riksmuseet; Stockholm; Loan no 136/03"; NHRS.

Holotype of *Derelomus rectirostris* Hustache, 1937
DEMOCRATIC REPUBLIC OF CONGO • ♂; "♂" "Holotypus [red label]" "Récolté dans; fruits de; *Phoenix*" "Musée du Congo; Rutshuru[1°11′04″ N 29°27′14″ E]; -I-1937; J. Ghesquière; 3651" "dét.; KK; 3245" "*Derelomus*; *rectirostris* m.[me]; Hustache det." "Holotype ♂; *Derelomus*; *rectirostris*; Hustache, 1937; Haran des. 2025" "*Derelomus*; *languidus*; Fåhraeus, 1844; Haran det. 2025"; RMCA.

Paralectotypes
REPUBLIC OF SOUTH AFRICA • 1 ♀; Cape of Good Hope; Drège coll.; NHRS • 1 ♀; Cape de Bonne espérance [Cape of Good Hope]; Schoenherr 1836; cotype *D. languidus*; MNHN.

Paratypes (*D. rectirostri*s)
DEMOCRATIC REPUBLIC OF CONGO • 1 (sex not determined, head and pronotum missing); Rutshuru; 1°11′04″ N, 29°27′14″ E; Jan. 1937; J. Ghesquière coll.; from fruits of *Phoenix* sp.; 3651; RMCA.

Other material
DEMOCRATIC REPUBLIC OF CONGO • 3 ♀♀; Rutshuru; 1°11′04″ N, 29°27′14″ E; May 1937; J. Ghesquière coll.; RMCA • 1 ♂, 1 ♀; South Kivu, Mulungu; 2°54′32″ S, 27°55′34″ E; 30 Sep. 1938; Hendrickx coll.; A.663; RMCA • 1 ♂, 1 ♀; same data as for preceding; NHMUK.

REPUBLIC OF SOUTH AFRICA • 2 ♀♀; South Africa [no precise locality]; 1905; Sharp coll.; NHMUK • 2 ♂♂, 1 ♀; [no precise locality]; Péringey coll.; NHMUK • 1 ♀; [no precise locality]; NMB. – **Western Cape Province** • 1 ♀; 1 (sex not determined); Cap. b. spé. [Cape of Good Hope], "Kapland"; NMB. – **Eastern Cape Province** • 2 ♂♂, 3 ♀♀; Kentani; 32°30′29″ S, 28°19′37″ E; 1907; A. Pegler

Fig. 19 (preceding page). Habitus and life history of *Derelomus fasciatus* Hartmann, 1904. **A–B, D–E**. ♂ (Republic of South Africa) (JHAR01252-01, CBGP). **C**. ♀ (same locality) (JHAR01252-02, CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F**. Habitat of *Searsia glauca* (Thunb.) in Gansbaai in the Republic of South Africa. **G**. Young infructescences of *Searsia glauca* on which adults were collected. Scale bar: A–C = 1 mm; D–E not to scale.

coll.; SAM-COL-A050315; SAMC • 1 ♀; same collection data as for preceding; SAM-COL-A050314; SAMC • 3 ♂♂, 3 ♀♀; Mbotyi, 31°27′11″ S, 29°44′49″ E; Dec. 2009; Ş. Procheş coll.; on female inflorescences of *Phoenix reclinata*; JHAR04159; CBGP. – **KwaZulu-Natal Province** • 1 ♂, 3 ♀♀; Mtwalume; 30°29′41″ S, 30°37′27″ E; 18 Jun. 1921; TMSA • 1 ♀; "natal" [no precise location]; 1930; Sicard coll.; MNHN • 3 ♂♂, 3 ♀♀; Empangeni; 28°46′06″ S, 31°53′07″ E; 2 Apr. 1923; reared from seeds of *Phoenix reclinata*; NHMUK • 1 ♀; Empangeni; 28°46′06″ S, 31°53′07″ E; 12 May 1923; C.P. Lounsbury coll.; reared from seeds of palm, *Phoenix* ?; NHMUK • 1 ♂; Umtentweni; 30°43′14″ S, 30°28′16″ E; Jul. 1951; A.L. Capener; NHMUK.

Redescription (♂)

Measurements. Body length 3.2–4.0 mm.

Color. Body integument pale brown, rostrum, sides and apex of elytra sometimes darker; dorsum glabrous in appearance, bearing minute whitish setae only visible on sides at high magnification.

Head. Rostrum distinctly longer than pronotum in lateral view (1.6 ×), only slightly downcurved in lateral view; in dorsal view about 7 × as long as wide, integument densely and finely punctate, forming 5 superficial longitudinal carinae from eyes to antennal insertion, median carina broader than others, split in two before antennal insertion; covered with scattered minute recumbent and non-contiguous whitish setae oriented transversally; antennae inserted near apical ⅓ of length in lateral view; head capsule coarsely punctate in dorsal view, puncture contiguous; forehead glabrous, with slight cuticular depression in middle; eyes convex, exceeding moderately lateral curve of head capsule in dorsal view; antennal funicle with segment 1 as long as 2+3, 3 × as long as wide, 3–7 longer than wide.

Pronotum. Transverse (W : L ratio: 1.35), widest near base or on basal ⅔ length, slightly narrower there than elytra at humeral angles (0.85 ×); sides slightly convex, subparallel or converging regularly apicad in in basal ⅔, converging abruptly in apical ⅓, lateral carina forming small constriction and tooth beyond middle of length, apical constriction shallow, about as wide as width of scape at apex; integument punctate, space between punctures dull, micropunctate, generally narrower than diameter of a puncture on dorsum; setae shorter than diameter of a puncture, only visible laterally.

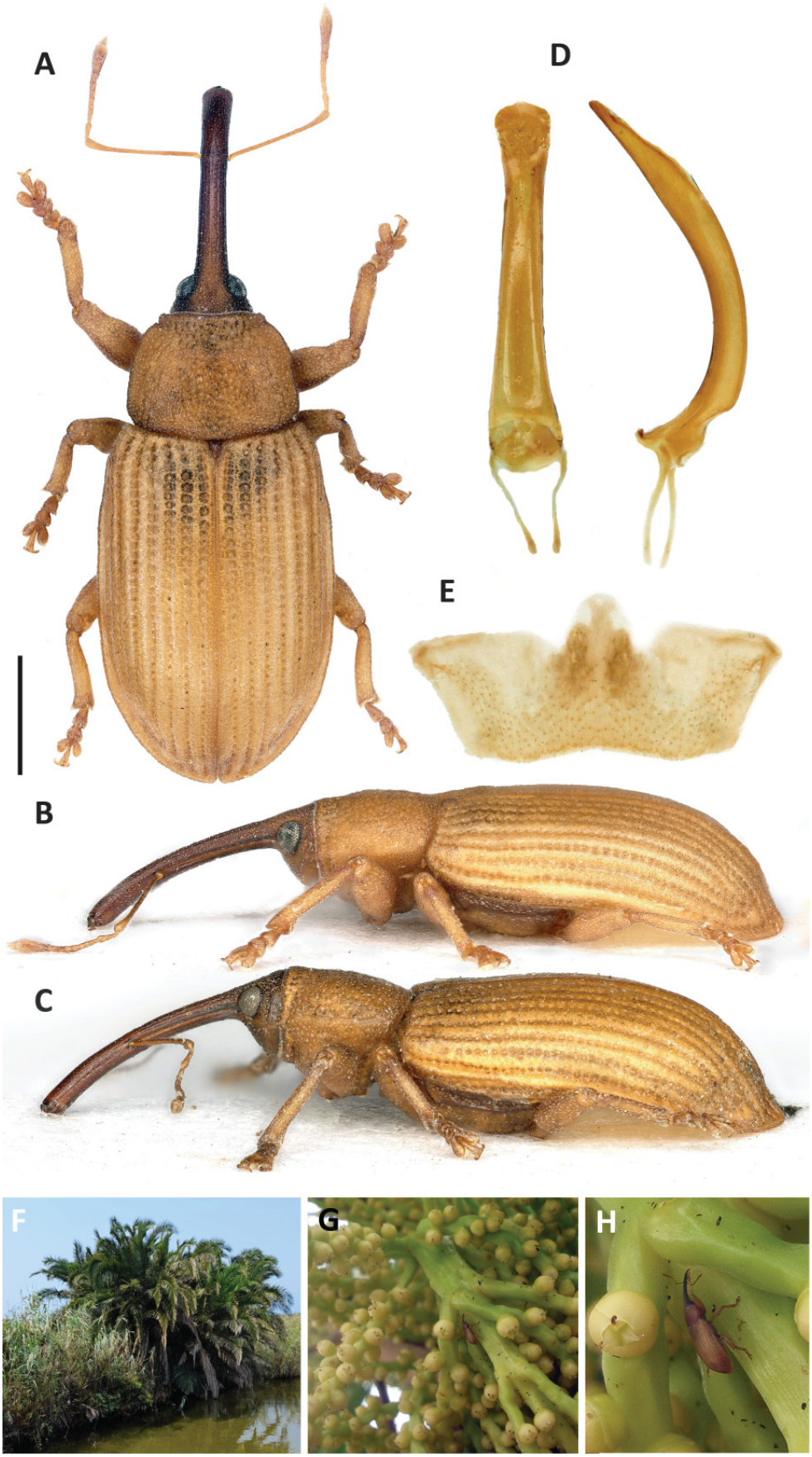
Elytra. Elongate (W : L ratio: 0.68); sides slightly convex, subparallel in basal ½, widest near middle of length; humeri raised; apex rounded, contiguous or not contiguous; striae with punctures about 2 × narrower than width of interstriae; interstriae slightly convex, 9 raised into carina; scutellar shield rounded, glabrous.

Abdomen. Underside covered with minute recumbent whitish setae, not contiguous. Stridulatory plate with series of 2–4 ill-defined granules, forming short lines about 0.5 × as long as length of median area; apex of median area rounded (Fig. 20E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, meso- and metatibiae slightly curved outward in apical half, internal margin of protibiae bisinuate, claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.23), about 3.5 × as long as apodemes, widest near base in dorsal view; sides slightly concave, narrowest beyond middle of length, widening apicad in apical ⅓, apex rounded; in lateral view curvature slightly stronger in basal ½ of length, width narrowing apicad from in apical ⅓ of length (Fig. 20D).

Fig. 20 (next page). Habitus and life history of *Derelomus languidus* Fåhraeus, 1844. **A–B, D–E**. ♂ (Mbotyi, Republic of South Africa) (JHAR04159-02, CBGP). **C**. ♀ (Kentani, Republic of South Africa) (SAMC). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D.** Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F**. Natural habitat of *Phoenix reclinata* Jacq. in coastal habitat of the southern coast of the Republic of South Africa. **G–H**. Adult of *D. languidus* on female inflorescence of *P. reclinata*. Scale bar: A–C = 1 mm; D–E not to scale.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Sexual dimorphism

The rostrum of females is distinctly longer (2 × as long as pronotum in lateral view) and more downcurved than in males. The antennae are inserted near the middle of the length (near the apical ⅓ in males; Fig. 20B–C).

Life history

Derelomus languidus develops in the fruits of *Phoenix reclinata* (Arecaceae; Lepesme 1947), adults are found on female inflorescences of this palm. This species is active in December and January, and from April to July.

Distribution

In our current knowledge, this species is known from the Eastern part of the Democratic Republic of Congo and from the coastal regions of the Eastern Cape and KwaZulu-Natal Provinces of the Republic of South Africa. Its host is widely distributed in continental Africa.

Remarks

In the collection housed at NHRS, a male and a female specimen under the name *Derelomus languidus* "Schr. Fhr" and bearing a label of the type locality [Cape of Good Hope] were located. The male specimen of this syntypic series (fitted with a red type label) is designated as the lectotype for *Derelomus languidus* Fåhraeus, 1844 [here designated] and was labelled accordingly. The examination of the series of *Derelomus rectirostris* Hustache, 1937 (Democratic Republic of Congo) revealed no significant morphological difference with the series of *Derelomus languidus* Fåhraeus, 1844 from the Republic of South Africa. The specimens from the Democratic Republic of Congo are slightly smaller (about 3 mm long versus 4 in *D. languidus* from the Republic of South Africa), the antennae are inserted slightly beyond the apical ⅓ of the length and the pronotum is less transverse. However, these variations are common between populations from central-eastern and southern Africa in *Derelomus* and the examination of the internal structures revealed no significant differences between the two series. As a result, the species name *Derelomus rectirostris* Hustache, 1937 is proposed as a junior synonym [new synonymy] of *Derelomus languidus* Fåhraeus, 1844. This species shows some affinities with the *D. nigrovariegatus* group (large size, arrangement of granules on the stridulatory plate and development on inflorescences of *P. reclinata*) but it is kept in a distinct group here due to the peculiar shape of the body of the penis, the size of the apodemes, the absence of a comb of seta on the protibiae of the males and the prosternum uniformly pale brown.

***Derelomus ephippiger* group**

This is the largest and possibly a non-monophyletic species group in *Derelomus*. Stable and simple synapomorphies to define it were not identified in the context of this study. The following combination of features should enable to distinguish this clade from the rest of the genus: lateral carina on pronotum glabrous, claw simple, prosternum uniformly pale brown (except in dark specimens of *D. chamaeropis*), head concolorous or slightly darker than pronotum and stridulatory plate with compact lines of granules, space between granules as wide or narrower than diameter of a granule. Species in this group are generally either longer than 2.5 mm, with dark patterns on the elytra or with costate elytra and never lack these three features combined. The majority of species also exhibits the following features: presence of a post-ocular dark strip, lateral carina on pronotum with distinct notch or tooth near middle of length, pronotum distinctly transverse (W : L ratio at least 1.36) and elytra in males very wide, lens or pear-shaped with 5th interstriae raised (see *D. piriformis*). This group is widely distributed in the study area and includes twelve species associated with male inflorescences of various palms (*Chamaerops* L., *Cocos* L., *Phoenix* L.; Arecaceae). Many species are found in sympatry, apparently sharing the same host and tissue. Several species concepts show geographic variants possibly corresponding to distinct species that would deserve more investigation.

Derelomus brevis Haran sp. nov.
urn:lsid:zoobank.org:act:F93E8F55-43FD-4E61-8395-929270522401
Fig. 21

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by its comparatively short elytra, at most 2.4 × as long as the pronotum (at least 2.45 × longer in other species). The dark pattern on the elytra is variable, but it always covers at least the base of interstriae 1–7, which is unique among species in this group. GenBank accession number for the corresponding DNA barcode: ON553436.

Etymology

The specific epithet refers to the short elytra of this species.

Material examined

Holotype

KENYA • ♂; "KENYA. Gazi[4°25′44″ S 39°30′04″ E] x.1956. ♂ flowers. *Cocos nucifera*. 2714" "C.I.E. Coll. No. 17370" "Press by. Com Inst Ent. B M 1960 2" "Holotype ♂. *Derelomus*. *brevis*. Haran 2025"; NHMUK.

Paratypes

KENYA • 5 ♂♂, 2 ♀♀; Gazi; 4°25′44″ S, 39°30′04″ E; Oct. 1956; on male flowers of *Cocos nucifera* L. (Arecaceae); 2714; NHMUK • 1 ♂, 1 ♀; Gazi; 4°25′44″ S, 39°30′04″ E; Sep. 1956; on male flowers of *Cocos nucifera* (Arecaceae); 2714; NHMUK • 1 ♂; Muhaka station; 4°18′57″ S, 39°32′24″ E; 19 Aug. 2020; E. Deletre coll.; on inflorescences of *Mangifera indica* L. (Anacardiaceae); JHAR03278; CBGP.

MAYOTTE ISLAND (FRANCE) • 1 ♀; 18 Jan. 2010; light trap; Mn3/100117.120; DM.

REUNION ISLAND (FRANCE) • 2 ♂♂, 2 ♀♀; Sainte Marie; 20°53′54″ S, 55°32′56″ E; 28 Mar. 2010; C. Lemagnen coll.; UV light trap in a garden; R. 297; DM • 1 ♂; same data as for preceding; 5 Jan. 2011; DM • 1 ♂; same data as for preceding; 1 Jan. 2019; EL • 1 ♀; same data as for preceding; 5 Jan. 2019; EL • 2 ♀♀; same data as for preceding; 12 Jan. 2018; EL • 1 ♂; same data as for preceding; 24 Feb. 2018; EL • 1 ♂; same data as for preceding; 6 Sep. 2018; DM • 2 ♂♂; same data as for preceding; Feb. 2022; JHAR07812; CBGP.

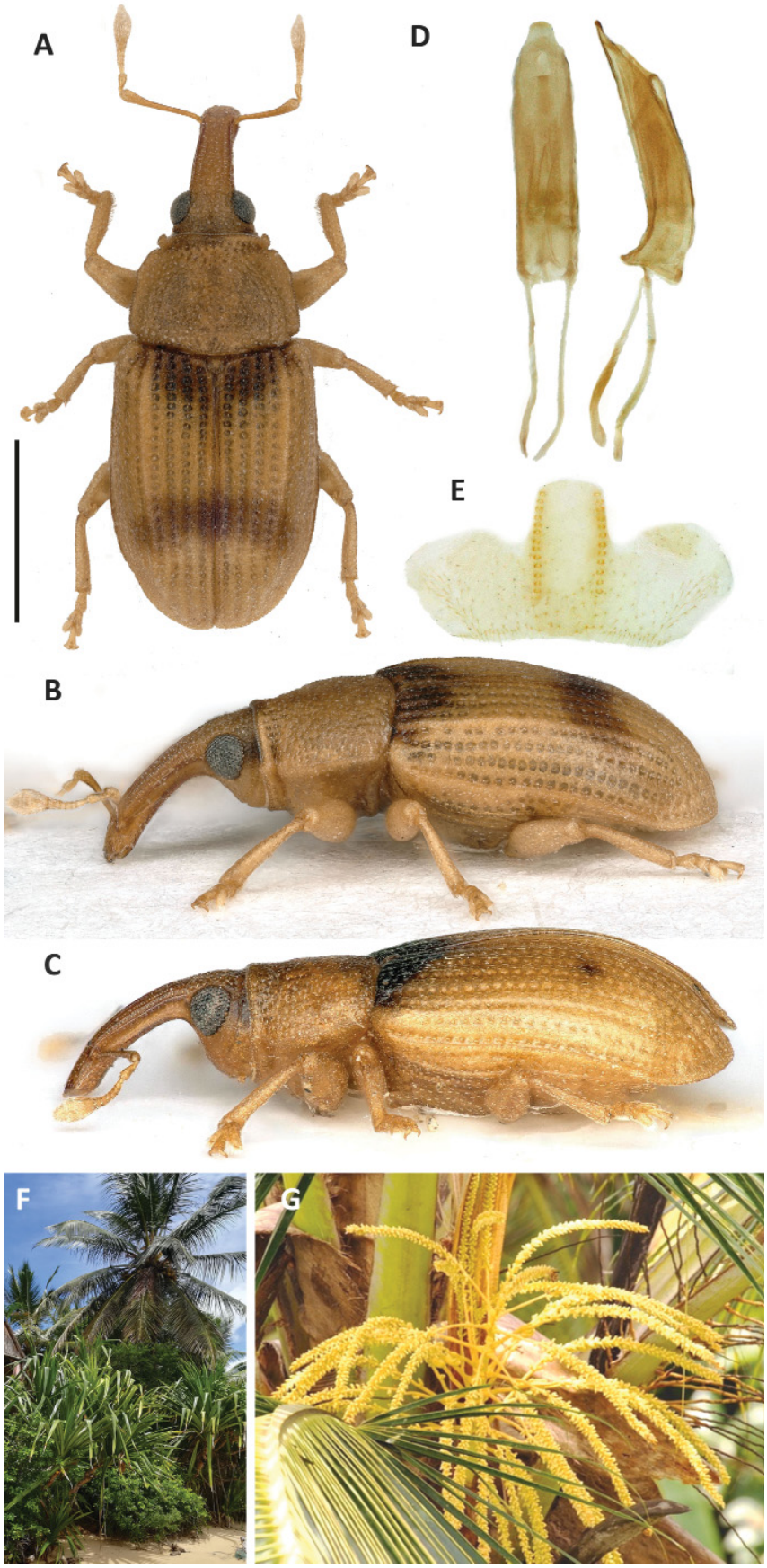
TANZANIA • 7 ♂♂, 1 ♀; Zanzibar Island; 6°03′14″ S, 39°12′36″ E; 1956; in debris of coconuts; 151; NHMUK.

Description (♂)

Measurements. Body length 1.8–3.0 mm.

Color. Body integument pale brown to brown, with post-ocular dark spots and dark patterns on dorsum generally forming two transverse strips on elytra, one at base between interstriae 1–7 and one slightly after middle of length, the latter sometimes reduced to small spot on each elytron; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum as long as pronotum in lateral view, moderately and regularly downcurved; in dorsal view about 3 × as long as wide, integument densely punctate, forming 5 longitudinal carinae (upper margin of scrobes excluded); antennae inserted near apical 1/6 of length; head capsule densely punctate in dorsal view, forehead flat or slightly concave; eyes convex, exceeding lateral curve of head capsule in dorsal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view; antennal funicle with first segment 2 × as long as wide, equal in length to segments 2–4 together, 2 longer than wide, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.50), widest near base, almost as wide there as elytra at humeral angles, side slightly rounded, converging apicad, generally with a tooth or a notch near apical ⅖, apical constriction deep; integument with punctures rounded, space between punctures smooth, dull, generally wider than diameter of punctures.

Metathorax. Metanepisterna glabrous.

Elytra. Moderately longer than wide (W : L ratio: 0.75–0.85); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded; striae with punctures ½ as wide as width of interstriae; interstriae flat, 5 generally convex, contrasting with the rest of interstriae, 9 raised into carina, at least in apical half; scutellar shield rounded, glabrous, pale brown, sometimes with sides darker.

Abdomen. Underside uniformly pale brown, similar in color to dorsum. Stridulatory plate with lines of 12–13 granules ¾ × as long as median line from base. Central sclerotized area broad and rounded at base (Fig. 21E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, with a comb of setae on apical half, setae about as long as 4th tarsomere, metatibiae slightly curved outward in apical half; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.25), 1.5 × as long as apodemes; sides subparallel in dorsal view, narrowing in apical ⅕, apex rounded; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from middle of length to apex (Fig. 21D).

Sexual dimorphism

Females can be distinguished by the rostrum which is slightly longer in lateral view than in males (Fig. 21C) and by the interstriae 5 never convex or contrasting.

Life history

Series of this species were collected on male flowers of *Cocos nucifera* (Arecaceae) and in debris of this palm. Adults were sporadically found on inflorescences of *Mangifera indica* L. (Anacardiaceae) and *Beaucarnea recurvata* (K.Koch & Fintelm.)Lem. (Liliaceae; E. Lemagnen pers. com.). Adults fly by night and are attracted by UV lights. They are active from January to March, in August, September and October.

Distribution

Coastal regions of Kenya and Tanzania and La Reunion and Mayotte islands. In La Reunion, this species has only been collected since 2010, suggesting a rather recent introduction on this island (E. Lemagnen pers. com.).

Fig. 21 (preceding page). Habitus and life history of *Derelomus brevis* Haran sp. nov. **A–B, D–E**. Holotype, ♂ (Kenya) (NHMUK). **C**. Paratype, ♀ (Reunion Island) (EL). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F–G**. Natural habitat and male inflorescence of *Cocos nucifera* L. in coastal habitat of Kenya. Scale bar: A–C = 1 mm; D–E not to scale.

Derelomus antonioui Alziar, 2007
Fig. 22

Derelomus antonioui Alziar, 2007: 109.

Derelomus antonioui – Haran *et al*. 2022a (phylogenetic relationship).

Diagnosis

This species shows a typical elytral pattern, generally forming two dark spots on the suture, one at the base and a second beyond the middle of thelength. In the *D. ephippiger* group, it can be distinguished by its very long rostrum, about 7× as long as wide in dorsal view in the male (only 5× in *D. peglerae* sp. nov.) and its stridulatory plate with bisinuate lines of the granules (Fig. 22E). The specimens lacking dark spots on the elytra resemble *D. piriformis*, but in the latter species, the rostrum of the male is much shorter (4.5–5× as long as wide) and the male's protibiae bear an internal comb of elongate setae (absent in *D. antonioui*). GenBank accession number for the corresponding DNA barcode: OK188822.

Material examined

Holotype

REPUBLIC OF CYPRUS • ♂; "Chypre [Republic of Cyprus], Polémi (Paphos) [34°53′10″ N 32°30′34″ E]; 31-III-2007; sur une inflorescence mâle de [on male inflorescence of] *Phoenix canariensis*; G. Alziar et J.-M. Lemaire leg."; MNHN.

Paratypes

REPUBLIC OF CYPRUS • 2 ♂♂, 2 ♀♀; Polémi, Paphos; 34°53′10″ N, 32°30′34″ E; 31 Mar. 2007; G. Alziar and J.-M. Lemaire coll.; on *Phoenix canariensis* H.Wildpret.; MNHN. See full list of paratypes and depositories in Alziar (2007).

Other material

REPUBLIC OF CYPRUS • 7 ♂♂, 1 ♀; Polémi, Paphos; 34°53′10″ N, 32°30′34″ E; 31 Mar. 2007; G. Alziar and J.-M. Lemaire coll.; on male inflorescence of *Phoenix canariensis*; JHAR03279; CBGP • 10 ♂♂, 6 ♀♀; Alambra; 34°59′21″ N, 33°24′04″ E; 12 May 1997; Y. Antoniou coll.; feeding in palm flowers; NHMUK.

NORTHERN CYPRUS • 1 ♂, 1 ♀; Gazimağusa, Yeni Iskele, Long Beach; 35°15′00″ N, 33°54′10″ E; 29 Apr. 2015; H. Mendel coll.; among palm flowers; JHAR03280, MBNH(E)2015-112; NHMUK.

SAUDI ARABIA • 1 ♂, 1 ♀; Taief [Taif]; 21°16′23″ N, 40°27′32″ E; 25 Jan. 1958; Fathy Shalaby coll.; on pollen grain of palm tree; NHMUK • 1 ♂, 1 ♀; Taief [Taif]; 21°16′23″ N, 40°27′32″ E; Feb. 1958; Fathy Shalaby coll.; on pollen grain of palm tree; NHMUK.

Redescription (♂)

Measurements. Body length 3.0–4.0 mm.

Color. Body integument uniformly pale brown to brown, generally with post-ocular dark strip and two dark spots on elytral suture, one at base and one beyond middle of length of interstriae 1–4; rostrum generally darker apicad; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum distinctly longer than pronotum in lateral view (1.2×), slightly and regularly downcurved; in dorsal view about 7× as long as wide, integument densely punctate, forming 5 longitudinal carinae;

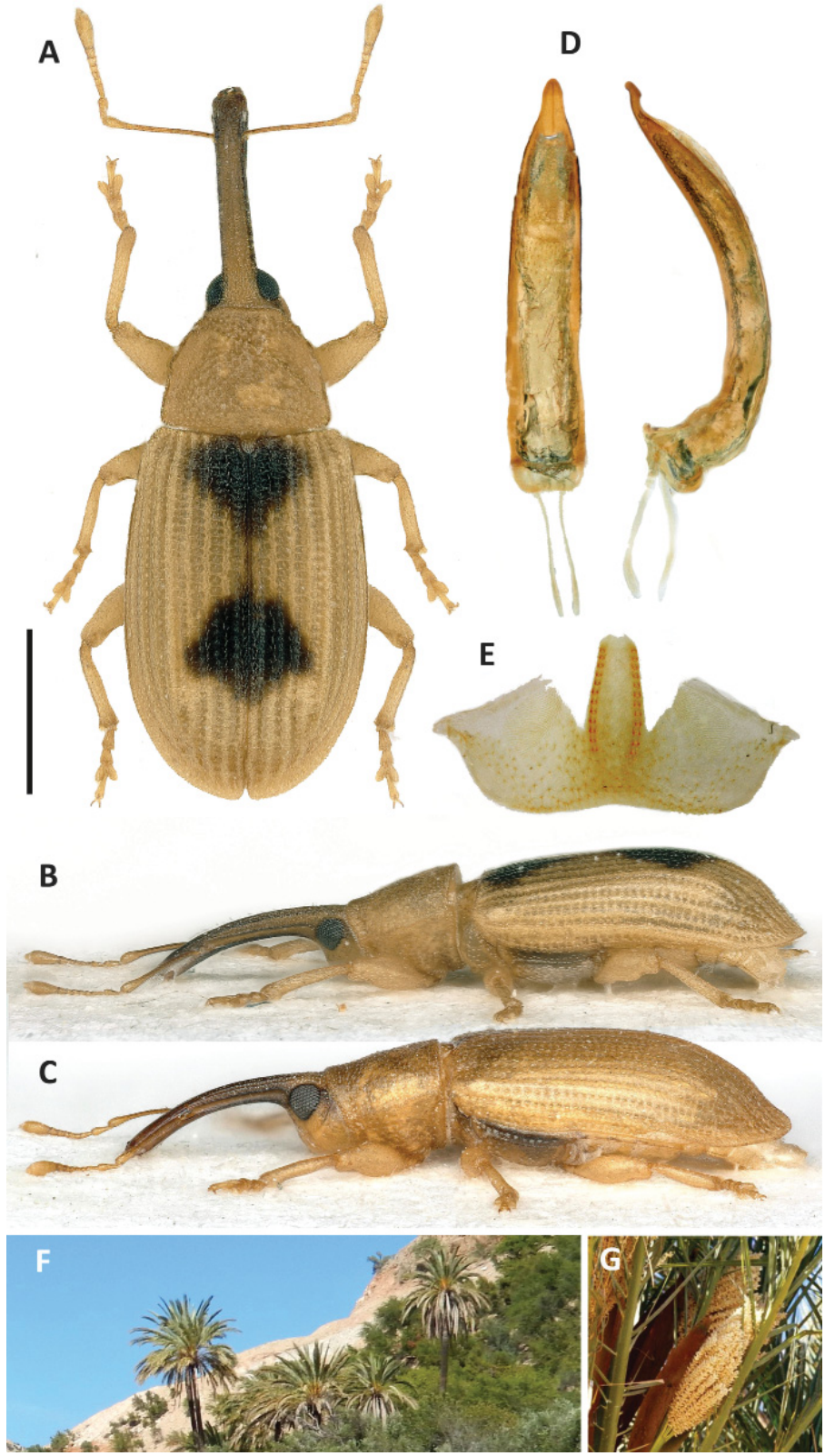


Fig. 22. Habitus and host plant of *Derelomus antonioui* Alziar, 2007. **A–B, D–E**. ♂ (Cyprus) (NHMUK). **C**. ♀ (Cyprus) (NHMUK). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. **F–G**. *Phoenix dactylifera* L., putative host of *Derelomus antonioui*. Scale bar: A–C = 1 mm; D–G not to scale.

antennae inserted near apical ¼ of length; head capsule densely punctate in dorsal view, forehead flat or slightly concave; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2.5 × as long as wide, equal in length to segments 2–3 together, 2–7 isodiametric.

Pronotum. Wider than long (W : L ratio: 1.37–1.5), widest near base, almost as wide there as elytra at humeral angles, side slightly rounded, converging apicad, forming notch or blunt tooth near middle of length; apical constriction deep or superficial; integument with punctures rounded, space between punctures smooth, shiny, micropunctate, wider than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.73); sides slightly convex, widest near middle of length; humeri raised; apex rounded, notched at level of suture; striae with punctures about ¼ as wide as width of interstriae; interstriae flat or slightly convex, 5 raised into carina; scutellar shield rounded, pale brown or dark brown, coated with small recumbent scales.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 12 granules ¾ × as long as median line from base, bisinuate. Central sclerotized area narrow, distinctly longer than wide, rounded at base (Fig. 22E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, at most as long as claws; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.18), 3.5 × as long as apodemes; sides subparallel in dorsal view, narrowing in apical ⅓, apex acuminate; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from apical ⅓, apex bisinuate (Fig. 22D).

Sexual dimorphism

Females can be distinguished from males by the rostrum, which is slightly narrower in dorsal view, with the integument shinier and more downcurved in lateral view (Fig. 22C). The antennae are inserted at the apical ⅖ of the rostrum (¼ in males; see Alziar 2007).

Life history

Adults were collected in high numbers on male inflorescences of *Phoenix canariensis* (Arecaceae), a species native to Canary Island introduced to Cyprus, but there is no direct evidence that this weevil uses this palm as host for larval development. Other specimens were found on *Phoenix dactylifera* L., also without details on larval development. Alziar (2007) suggested that *P. dactylifera* could be the ancestral host of *D. antonioui* that subsequently shifted on *P. canariensis* once introduced to Cyprus. The record of this species in Saudi Arabia, where *P. dactylifera* is widespread, agrees with this hypothesis. Note that a palm endemic to the eastern Mediterranean region (Greece and Turkey), *Phoenix theophrasti* Greuter, also occurs near Cyprus with no record of associated *Derelomus* species yet. Adults of *D. antonioui* were recorded from January to May.

Distribution

Island of Cyprus and Saudi Arabia.

Remarks

The color pattern, shape of the elytra and the pronotum, and the apex of the body of the penis are quite variable in this species (Alziar 2007).

Derelomus postfasciatus Hesse, 1929
Fig. 23

Derelomus postfasciatus Hesse, 1929: 527.

Derelomus postfasciatus – Haran *et al*. 2022b (phylogenetic relationships); 2023a (life history).

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by its typical elytral pattern, forming a large and contrasting dark spot beyond the middle of the length on each elytron, sometimes merged in a transverse strip and by the body of the penis which is very elongate with the sides concave. This species looks similar to *D. chamaeropis*, but in the latter species, the elytra are always uniformly pale brown without pattern. GenBank accession numbers for the corresponding DNA barcodes: ON553425–26

Material examined

Lectotype (here designated)
REPUBLIC OF SOUTH AFRICA • ♂; "Kentani [Eastern Cape Province, 32°31′05″ S 28°19′30″ E]; 1907; Miss Pegler" "South Africa; Kentani, 1907; Miss Pegler [Alice M. Pegler, south african entomologist and botanist, see Etymology section under *Derelomus peglerae*]" "TYPE [red label]" "*Derelomus*; *postfasciatus* Hesse" "Lectotype ♂; *Derelomus*; *postfasciatus*; Hesse, 1929; Haran des. 2025"; SAMC.

Paralectotypes
REPUBLIC OF SOUTH AFRICA – **Eastern Cape Province** • 8 ♂♂, 13 ♀♀; Kentani; 32°31′05″ S, 28°19′30″ E; 1907; Pegler coll.; SAM-ENT-4035; SAMC • 10 ♂♂, 7 ♀♀; same collection data as for holotype; NZAC.

Other material
REPUBLIC OF SOUTH AFRICA – **Limpopo Province** • 2 ♂♂; Hans Merensky Nature Reserve; 23°41′42″ S, 30°40′05″ E; 23–25 Jan. 1987; R. Oberprieler coll.; collected on leaves of *Phoenix reclinata*; SANC • 1 ♂, 1 ♀; Nwanedi Provincial Park; 22°37′34″ S, 30°24′22″ E; 8 Feb. 1994; R. Oberprieler coll.; collected from *Phoenix reclinata*; SANC • 1 ♂; Mmabolela Estate; 22°37′52″ S, 28°16′34″ E; 7 Mar. 1973; Endrödy-Younga coll.; air plankton; E-Y: 18; TMSA. – **Eastern Cape Province** • 3 ♂♂, 2 ♀♀; Kentani; 32°31′05″ S, 28°19′30″ E; 1927; Pegler coll.; NHMUK • 2 ♂♂, 1 ♀; Mbotyi campsite; 31°27′54″ S, 29°43′48″ E; Dec. 2009; Ş. Procheş coll.; male and female inflorescences of *Phoenix* sp.; JHAR07432; CBGP. – **Western Cape Province** • 1 ♂; 1 spec. (preserved in ethanol); Stellenbosch; 33°55′48″ S, 18°52′30″ E; 18 Jul. 2018; J. Haran coll.; on flowers of *Buddleja auriculata* Franch. (Buddlejaceae); JHAR01180; CBGP • 3 ♂♂; Pringle Bay; 34°21′00″ S, 18°49′48″ E; 28 Nov. 2019; J. Haran coll.; on male inflorescence of *Phoenix reclinata*; JHAR03078-02; CBGP • 1 ♀; Cape colony [exact locality ?]; 1910; C.W. Mally; NHMUK.

Redescription (♂)

Measurements. Body length 2.2–2.8 mm.

Color. Body integument pale brown, post-ocular area, apex of rostrum, antennal club and scutellar shield dark brown, each elytron with a dark spot beyond middle of length, usually extending between interstriae 2 and 7, in some specimens forming contiguous transverse dark band between interstriae 9; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum distinctly longer than pronotum in lateral view (1.15 ×), slightly and regularly downcurved; in dorsal view about 6 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted near apical ¼ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat or slightly concave; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, equal in length to segments 2–3 together, 2–4 isodiametric, 5–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.25), widest near middle of length or in basal ⅓, 0.85 × as wide there as elytra at humeral angles, converging apicad in apical ½, lateral carina forming notch near middle of length; apical constriction deep; integument with punctures rounded, space between punctures smooth, shiny, micropunctate, wider than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.73); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded; striae with punctures about ⅓–¼ as wide as width of interstriae; interstriae slightly convex; scutellar shield rounded, coated with few small recumbent scales.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 8 granules ⅔ × as long as median line from base, slightly convex. Central sclerotized area wide, transverse, truncate at base (Fig. 23E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, at most as long as claws; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.23), about 2 × as long as apodemes; sides concave in dorsal view, widest near base, widening apicad from apical ⅓ and then narrowing from apical ⅕ of length, apex forming a spatula; in lateral view curvature slightly stronger in basal ½ of length, width narrowing regularly from apical ⅖, apex slightly curved upward (Fig. 23D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is longer (1.3 × as long as pronotum in lateral view, about 7–8 × as long as wide in dorsal view), more downcurved and with a shinier integument (Fig. 23C). The antennae are inserted at the apical ⅖ of the rostrum (near the apical ¼ in males).

Life history

Adults are found on the male inflorescences of *Phoenix reclinata* (Arecaceae), which probably constitutes the habitat for larvae. This species is active during the day, sporadically recorded visiting flowers of various bushes. Adults were recorded from July to March.

Distribution

Endemic to the Republic of South Africa in our current knowledge. Recorded from the coastal regions of the Eastern and Western Cape provinces and inland in the Limpopo Province.

Remarks

In the collection housed at SAMC, a male specimen from Kentani (Republic of South Africa), bearing the red type label and identified as *Derelomus postfasciatus* by the hand of A.J. Hesse, was located. This specimen is designated as the lectotype for *Derelomus postfasciatus* Hesse, 1929 [here designated] and was labelled accordingly. The other specimens of this series were labelled as paralectotypes.

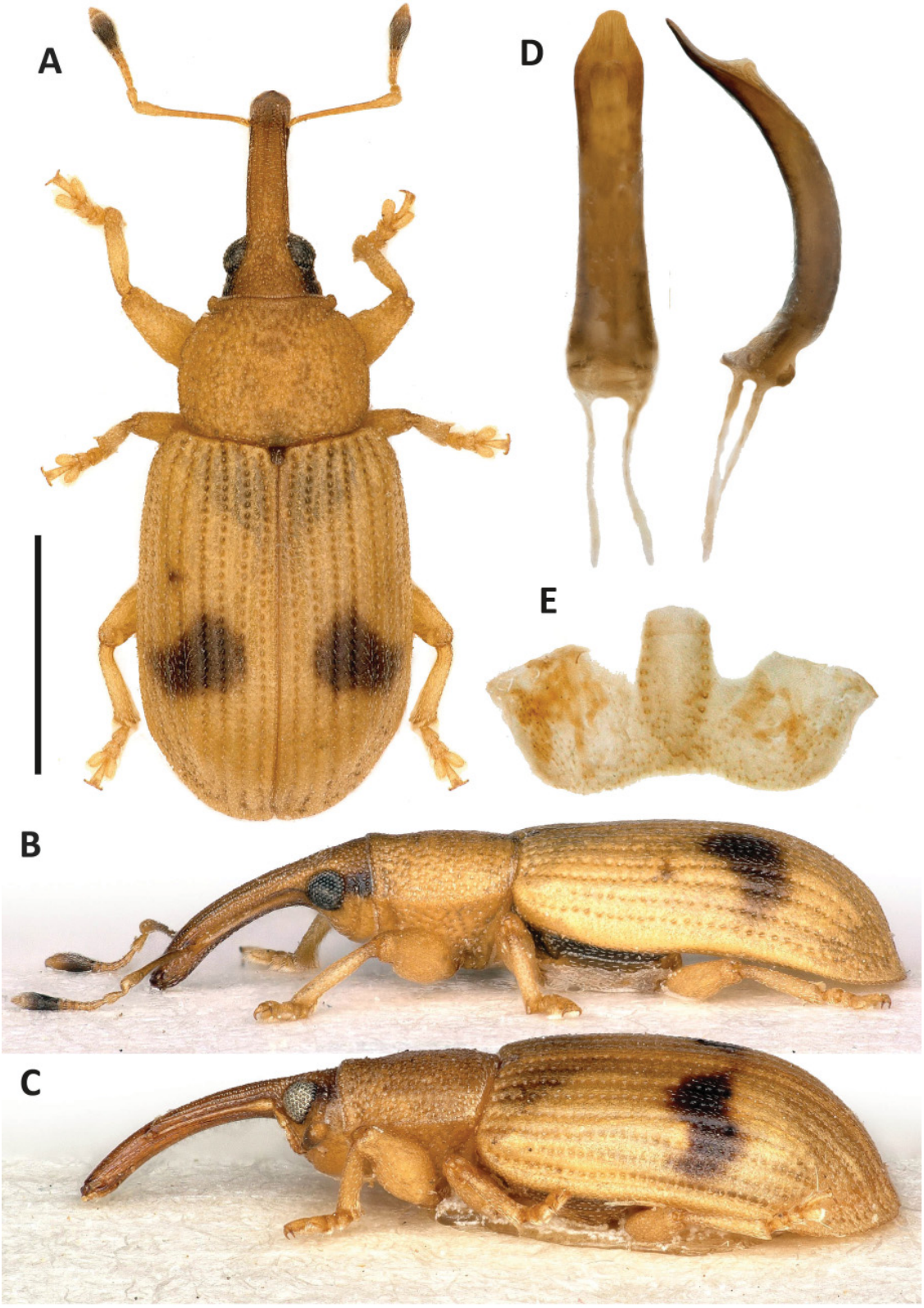


Fig. 23. Habitus of *Derelomus postfasciatus* Hesse, 1929. **A–B, D–E**. ♂ (Republic of South Africa, Western Cape Province) (JHAR01180-01, CBGP). **C**. ♀ (Republic of South Africa, Limpopo Province) (SANC). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Derelomus chamaeropis (Fabricius, 1798)
Fig. 24

Curculio chamaeropis Fabricius, 1798: 167.
Ochrinulus antigae Reitter, 1887: 18.
Derelomus subcostatus Boheman, 1844: 92. **Syn. nov.**

Derelomus chamaeropis – Schoenherr 1825 (systematics). — Lepesme 1947 (key). — Veyret 1940 (biology).
Derelomus chamaeropis var. *B* – Gyllenhal 1836.
Derelomus chamaeropsis [misspelling] – Anstett 1999. — Dufaÿ *et al.* 2002. — Dufaÿ & Anstett 2004 (life history). — Haran *et al.* 2022a (phylogenetic relationships).

Diagnosis

This species can be distinguished from others of the *D. ephippiger* group by the combination of the pronotum almost as wide as the elytra near the middle of the length and the elytra comparatively elongate (W : L ratio: 0.68–0.77), lacking a contrasting dark pattern and with interstriae 9 flat in females, not enlarged in males. This species is closely related and sometimes sympatric with *D. piriformis*, but in the latter species, males have very convex elytra and a comb of setae on the protibiae (side of elytra only slightly convex and protibiae lacking comb in *D. chamaeropis*) and the females have a longer and narrower rostrum (Fig. 25B–D). Uncorrected *p*-distances between these species range from 8.0 to 8.8%. GenBank accession numbers for the corresponding DNA barcodes: OK188812–13/PV698448–49–51–54–55–57–60–61–63–68–73/ (not an exhaustive list).

Material examined

Holotypes

MOROCCO • ♀; "Tanger.; Schousboe. [Peder K. A. Schousboe, Danish diplomat and botanist based in Morocco]; Mus: S: & T.L: [collection Sehestedt & Tonder Lund; former Copenhagen collection of Fabricius types]" "TYPE" "ZMUC00037405" "Holotype ♀; *Curculio*; *chamaeropis*; Fabr. 1798; des. J. Haran 2025" "*Derelomus*; *chamaeropis*; (Fabr. 1798); J. Haran 2025"; ZMK.

COUNTRY (?) • ♀; "Barbaria [Northern coast of Africa, from Morocco to Lybia]; Mus: T: Lund. [collection Sehestedt & Tonder Lund; former Copenhagen collection of Fabricius types]" "TYPUS [red label]" "Holotype ♀; *Derelomus*; *chamaeropis*; *var. β* (beta); Gyllenhal 1836 [G. Kuschel's label]" "*Derelomus*; *chamaeropis*; (Fabr. 1798); Kuschel 2005 [G. Kuschel's label]" "Naturhistorika; Riksmuseet; Stockholm; NHRS.

ITALY • ♂; "Ménétr. [Edouard Ménétries, french entomologist at St. Petersburg Academy of Science]" "Géné.; Sardinia [Carlo Giuseppe Gené, italian entomologist at the Royal Zoological Museum, Turin]" "TYPUS [red label]" "647" "*Derelomus*; *chamaeropis*; Sardinia; Mannerheim. [Carl Gustaf Mannerheim, finish governor and entomologist]" "Holotype ♂; *Derelomus*; *subcostatus*; Boheman, 1844; Haran des. 2025" "*Derelomus*; *chamaeropis*; (Fabr. 1789); Haran des. 2025" "Naturhistorika; Riksmuseet; Stockholm"; NHRS.

Other material

ALGERIA • 2 ♀♀; Souk Tlata, "Dradek"; 35°03′43″ N, 2°00′00″ E; collector and date unknown; CBGP • 4 ♂♂, 6 ♀♀; Algiers; 36°48′11″ N, 3°00′32″ E; collector and date unknown; NHRS • 1 ♂; Mascara; 35°23′39″ N, 0°09′39″ E; H. Lucas coll.; MNHN • 1 ♂; Oran; 35°41′52.8″ N 0°40′08.4″ W; 1906; C.H. Coquerel coll.; MNHN • 1 ♂; Oran; 35°41′53″ N, 0°40′08″ W; G. Allard coll.; MNHN • 1 ♂; [locality ?]; NMB • 1 ♀; [locality ?]; NHMUK • 1 ♀; no precise locality; 1905; Sharp coll.; NHMUK • 1 ♀; Misserghin; 5°36′54″ N, 0°44′46″ W; NHMUK.

FRANCE • 1 ♂; Banyuls sur Mer; 42°28′23″ N, 3°06′57″ E; 28 Mar. 2013; C. Chauvelier coll.; JHAR07412; CBGP • 1 ♂; Palavas les Flots; 43°31′34″ N, 3°55′54″ E; 15 Apr. 2022; J. Haran coll.; inflorescences of ornemental *Chamaerops humilis*; JHAR04762; CBGP • 1 ♂; Montpellier, Jardin des plantes; 10 May 1997; 43°36′50″ N, 3°52′20″ E; S. Piry coll.; *Chamaerops humilis*; SPc.6031; CBGP • 4 ♂♂, 1 ♀; Toulon, jardin d'acclimatation; 43°31′45″ N, 6°56′18″ E; May 1928; De Boissy coll.; male flowers of *Chamaerops*; MNHN • 6 ♂♂, 8 ♀♀; Alpes Maritimes, Mandelieu; 43°31′52″ N, 6°56′14″ E; May 1940; on *Chamaerops humilis*; MNHN • 1 ♂, 3 ♀♀; Var, la Garde; 43°07′38″ N, 6°01′26″ E; 11 May 1929; P. Veyret coll.; PW • 1 ♂, 3 ♀♀; Var, la Garde; 43°07′38″ N, 6°01′26″ E; May 1932; P. Veyret coll.; PW • 1 ♀; Corse, Ile-Rousse; 42°37′56″ N, 8°56′21″ E; 6 Apr. 2016; J. Haran coll.; male inflorescence of *C. humilis*; JHAR02984; CBGP • 10 specs (preserved in ethanol); Sète; 43°24′29″ N, 3°42′11″ E; 18 May 2024; J. Haran coll.; larvae in rachis of male inflorescence of *C. humilis*; JHAR07980; CBGP.

ITALY • 3 ♂♂, 4 ♀♀, 8 specs (preserved in ethanol); Sicily, Palermo; 38°11′35″ N, 13°16′38″ E; 2022; M. Hossaert coll.; male inflorescence of *C. humilis*; JHAR04886; CBGP • 1 ♂; Sicily [no precise locality]; 37°17′46″ N, 14°09′54″ E1847; L. Benoit coll.; MNHN • 1 ♂; Sicily [no precise locality]; 37°17′46″ N, 14°09′54″ E; Sharp coll.; NHMUK • 1 ♂, 3 ♀♀, 11 specs (preserved in ethanol); Sicily, Borgo Casellazzo; 38°02′46″ N, 12°51′30″ E; 11 Apr. 2024; M. Dufaÿ coll.; male inflorescence of *C. humilis*; JHAR08306; CBGP • 50 specs (preserved in ethanol); Sicily, Cornino; 38°05′54″ N, 12°39′40″ E; 14–16 Apr. 2024; M. Dufaÿ coll.; male inflorescence of *C. humilis*; JHAR08307; CBGP • 1 ♀, 1 spec. (preserved in ethanol); Pantelleria Island; 36°46′30″ N, 11°57′51″ E; 22 Apr. 2023; T. Auffray coll.; male inflorescence of *C. humilis*; JHAR05699; CBGP • 1 ♂, 3 ♀♀; Genova, Pegli; 44°25′30″ N, 8°48′36″ E; 15 May [year ?]; S. Solari coll.; NHMUK • 1 ♂, 1 ♀; Genova, Pegli; 44°25′30″ N, 8°48′36″ E; 5 May 1915; S. Solari coll.; NHMUK • 2 ♂♂, 1 ♀; Gallipoli; 40°03′14″ N, 17°59′24″ E; 1905; Sharp coll.; NHMUK • 3 ♂♂, 2 ♀♀, 10 specs (preserved in ethanol); Bari; 41°07′45″ N, 16°51′58″ E; 27 Apr. 2024; J. Haran coll.; male inflorescence of *C. humilis*; JHAR07851; CBGP.

MOROCCO • 1 ♀; Larache; 35°10′16″ N, 6°10′05″ W; 1885; De La Roche coll.; 265; MNHN • 1 ♂, 3 ♀♀; South Asni; 31°12′51″ N, 7°58′01″ W; 18 May 2007; J. Pelletier coll.; "friche" [wasteland] *Chamaerops*; JHAR07413; CBGP • 1 ♀; Haut Atlas, 18 km S of Demnat; 31°35′46″ N, 6°59′52″ W; 1600 m a.s.l.; 21 May 2007; J. Pelletier coll.; JHAR07414; CBGP • 4 ♂♂, 4 ♀♀; Mgoun, Azizal; 31°27′36″ N, 6°33′00″ W; 21 May 2007; J. Pelletier coll.; JHAR07415; CBGP • 1 ♂; Khénifra, Azrou; 33°25′55″ N, 5°11′29″ W; A. Thery coll.; CBGP • 1 ♂; Korifla [?]; A. Thery coll.; CBGP • 4 ♂♂, 2 ♀; Tanger area; 35°47′39″ N, 5°51′21″ W; 1857; Favier coll.; MNHN • 1 ♂, 2 ♀♀; Tangier; 35°47′39″ N, 5°51′21″ W; 1915; NHMUK • 2 ♂♂, 2 ♀♀; Tangier; 35°47′39″ N, 5°51′21″ W; Sharp coll.; NHMUK • 1 ♂; Tangier; 35°47′39″ N, 5°51′21″ W; Schill coll.; NHMUK • 1 ♂, 3 ♀♀; Tangier; 35°47′39″ N, 5°51′21″ W; J.J. Walker coll.; NHMUK • 2 ♂♂, 1 ♀; Khénifra; 32°57′00″ N, 5°40′38″ W; 19 Apr. 2006; J. Pelletier coll.; male inflorescence of *C. humilis*; JHAR03220; CBGP • 1 ♀; no precise locality; 1905; Sharp coll.; NHMUK • 1 spec. (sex undetermined); S of Berkane, N of Aïn-es-Sfa, Beni Snassen Mts; 34°49′52″ N, 2°08′46″ W; 13 May 2011; P. Stuben coll.; beating *Chamaerops humilis*; (identification by genetic assignation, GenBank acc. KC783895); ZFMK • 1 ♂, 1 ♀; Ras Foughal [Jbel Foughal]; 34°49′59″ N, 2°12′00″ W; 20 May 1932; Vidal coll.; NHMUK • 1 ♂; Maâmora Forest; 34°08′53″ N, 6°36′07″ W; Theory coll.; NMB.

PORTUGAL • 2 ♂♂, 3 ♀♀; Serra de Espinnaço do cao; 37°16′55″ N, 8°44′00″ W; 8 Jun. 1989; J. Pelletier coll.; 300 m a.s.l.; RB • 1 ♀; Lisboa; 38°41′53″ N, 9°13′23″ W; Flach. coll.; NHMUK • 1 ♂; Madeira; Ribeiro Frio; 32°43′56″ N, 16°53′10″ W; Balachowsky coll.; MNHN.

SPAIN • 4 ♂♂, 1 ♀; Cabo de Palos; 37°37′09″ N, 0°42′51″ W; 2 Mar. 2001; J. Pelletier coll.; male inflorescence of *C. humilis*; JHAR04643; CBGP • 5 ♂♂, 3 ♀♀, 20 specs (preserved in ethanol); Garraf; 41°15′26″ N, 1°54′29″ E; 20 Apr. 2022; M. Dufaÿ coll.; male inflorescence of *C. humilis*; JHAR04764; CBGP • 3 ♂♂, 1 ♀; same locality as for preceding; 11 Apr. 1998; S. Piry coll.; *Chamaerops humilis*; SPc.6535-36/66-67; CBGP • 3 ♂♂, 1 ♀; Barcelona; 41°21′32″ N, 2°09′43″ E; 17 Apr. 2013; M. Dufaÿ coll.; male inflorescence of *C. humilis*; JHAR04784; CBGP • 1 ♀; Barcelona; 41°21′32″ N, 2°09′43″ E;

Odier coll.; NHMUK • 2 ♂♂; Valencia; 39°25′09″ N, 0°20′13″ W; 17 Apr. 2022; M. Dufaÿ coll.; male inflorescence of *C. humilis*; JHAR04786; CBGP • 2 ♀♀; Andalusia, Motril; 36°44′24″ N, 3°31′45″ W; 11 Apr. 1971; J. Péricart coll.; RB • 1 spec. (sex undetermined); Malaga, NW of Otivar, Sierra del Chapparal; 36°49′30″ N, 3°42′29″ W; 8 May 2013; P. Stüben and A. Schütte coll.; *Quercus ilex* L. sieving; ZFMK (identification by genetic assignation, GenBank acc. MK891322) • 1 ♂; Mallorca Island, Alcúdia; 39°51′07″ N, 3°07′38″ E; 13 Apr. 1964; W. Leibmann coll.; NHMUK • 1 ♀; same locality as for preceding; 4 May 2000; R. Rober coll.; NHMUK.

UNITED KINGDOM • 1 ♂, 2 ♀♀; Gibraltar; 36°07′55″ N, 5°21′03″ W; NHMUK • 13 ♂♂, 23 ♀♀; Gibraltar; 36°07′55″ N, 5°21′03″ W; J.J. Walker coll.; NHMUK.

Redescription (♂)

Measurements. Body length 2.5–3.7 mm.

Color. Body integument pale brown, scutellar shield, pronotum and head including rostrum generally darker, in some individuals interstriae 1, sometimes 2 darker as well; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum slightly longer than pronotum in lateral view (1.1–1.15×), regularly downcurved; in dorsal view 4 to 5.5× as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted near apical ¼ of length in lateral view; head capsule densely and coarsely punctate in dorsal view, forehead flat or slightly concave; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2–2.2× as long as wide, slightly longer than segments 2–3 together, 2 longer than wide, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.34–1.45), widest at basal ⅓ of length, 0.95–1× as wide there as elytra at humeral angles, sides slightly convex, converging regularly from basal ⅓ to apex, lateral carina forming notch near middle of length; apical constriction distinct, about as deep as width of scape in middle of length; integument with punctures rounded, space between punctures dull, micropunctate, wider or narrower than diameter of punctures in middle, narrower anteriorly and laterally.

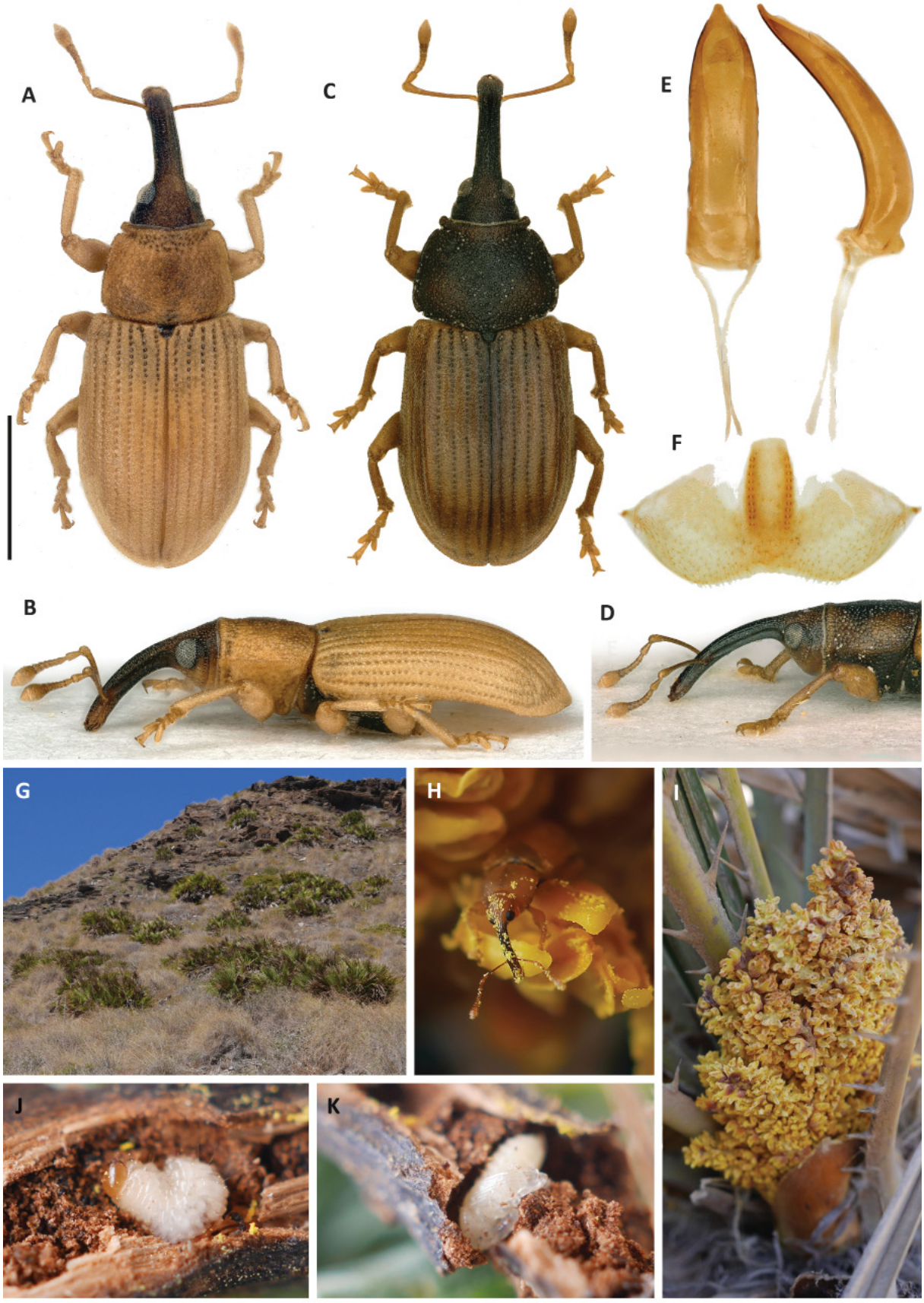
Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.68–0.77); sides slightly convex, widest near middle of length; humeri raised; apex jointly rounded or notched at level of suture; striae with punctures about ⅓–¼ as wide as width of interstriae; interstriae slightly convex, interstriae 5 sometimes raised in basal ⅔, 9 flat; scutellar shield rounded, coated with few small recumbent scales, not concealing integument.

Abdomen. Underside with ventrites 1–2 darker than 3–5, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 10–11 granules ⅔× as long as median line, slightly convex. Central sclerotized area longer than wide, truncate at base (Fig. 24F).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate, setae on apical half of internal margin recumbent, at most as long as claws; claws simple.

Fig. 24 (next page). Habitus and life history of *Derelomus chamaeropis* (Fabricius, 1798). **A–B**. Dorsal (A) and lateral (B) habitus of male, pale variant with 5th interstria not raised (Morocco) (JHAR03220-01). **C**. Dorsal habitus of male, dark variant with 5th interstria costate, pronotum wider (Sicily) (JHAR04886-05, CBGP). **D**. Head and pronotum in lateral view of female, dark variant (Sicily) (JHAR04886-06). **E**. Penis in dorsal (left) and lateral (right) views (JHAR03220-01, CBGP). **F**. Stridulatory plate (JHAR03220-01, CBGP). **G**. Stands of *Chamaerops humilis* L. (Arecaceae) on the western coast of Spain. **H**. Adult of *D. chamaeropis* visiting the male inflorescences of *C. humilis*, note the pollen grains attached to the cuticle. **I**. Male inflorescences of *C. humilis* in anthesis. **J–K**. Larva and pupa of *D. chamaeropis* in dry stipe of male inflorescences of *C. humilis*. Scale bar: A–D = 1 mm; E–F not to scale.


A
C
E
F
B
D
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H
I
J
K

Terminalia. Body of penis elongate (W : L ratio: 0.25), about 1.3 × as long as apodemes; sides subparallel in dorsal view, widest in basal ⅔, converging apicad from apical ⅓, apex acuminate; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from near ½ of length, apex slightly curved upward (Fig. 24E).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is narrower and longer in dorsal view. In lateral view, the rostrum is distinctly longer than the pronotum in females (slightly longer than pronotum in males; Fig. 24B–D). The antennae are inserted at apical ⅓ in females (¼ in males).

Variation

This species is quite polymorphic. Morphological variation occurs at two levels. First, *D. chamaeropis* consists of genetically isolated lineages distributed around the western part of the Mediterranean region (see Remarks section below). These populations show slight morphological divergences. For example, the rostrum of males is on average slightly longer and narrower in populations from Spain (mean W : L ratio: 0.24 (0.21 – 0.25); width measured at antennal insertion) than those from Sicily (mean W : L ratio: 0.18 (0.15 – 0.22)). Within the eastern clade, rostrum length and width also vary slightly between the French, Italian and Moroccan specimens examined. In addition to these geographic variations, the phenotype of adults in a given population is also variable. Variation includes 'major' males, with a comparatively wide pronotum and 5th elytral interstriae raised and 'minor' males with a comparatively narrow pronotum and 5th elytral interstriae flat. Color variation ranges from specimens uniformly pale brown, to specimens with brown elytra and a dark brown pronotum, head and rostrum (Fig. 24A–D), more rarely with the body (head, pronotum and elytra) uniformly dark brown.

Life history

Derelomus chamaeropis is the specific brood-site pollinator of the Mediterranean dwarf palm: *Chamaerops humilis* (Arecaceae; Anstett 1999). Adults fly and reach inflorescences of both male and female plants, attracted by scents emitted by leaves (Dufaÿ *et al.* 2002), thus transferring pollen to the stigma of female inflorescences. They mate and oviposit in the rachis of the inflorescences (Anstett 1999; Fig. 24I–K) and larvae develop in the stem of inflorescences, mainly on male plants. Successful larval development has also been described in female plants, but with markedly lower frequency and densities than on male plants (Dufaÿ & Anstett 2004; Jácome-Flores *et al.* 2018). Adults are active during the flowering season of *C. humilis*, from March to June. Larval development takes place in the decaying woody tissues of rachises from early summer to late winter. Pupation takes place within the rachises. As for many brood-site pollination systems involving weevils, *C. humilis* is co-pollinated by the sap beetle *Meligethinus pallidulus* (Erichson, 1843) also developing on male inflorescences (JH obs.) and visiting females ones (M. Dufaÿ pers. com.). Both species are efficient pollinators, even for isolated populations of palms resprouting after fire (García *et al.* 2018). The report of *D. chamaeropis* on *P. canariensis* (Lepseme 1941) is likely accidental.

Distribution

Coastal regions of the Western Mediterranean area: Algeria, Croatia, France, Italy, Morocco, Spain, including islands (Corsica, Sardinia, Sicily, Malta; Caldara 2013).

Remarks

In Fabricius' collection housed at ZMK, a unique female specimen under the identification name "*Curculio* (=*Rhynchaenus*) *chamaeropsis* F., 1798" and fitted with a red type label was located. This specimen is the holotype of *Curculio chamaeropis* Fabricius, 1798 and was labelled accordingly. In Shoenherr's collection, housed at NHRS, the holotype of *Derelomus chamaeropis* var. *β* Gyllenhal,

1836 was located and labelled accordingly. In the same collection, a male specimen bearing a red type label and corresponding in all aspects to the description of *Derelomus subcostatus* Boheman, 1844 was located. This specimen is the holotype of *Derelomus subcostatus* Fåhraeus, 1844 and was labelled accordingly. Based on a detailed examination of these types and a molecular analysis of specimens newly sampled in the region of the type localities, it is stated here that the specimens used to describe *Derelomus chamaeropis* var. α and *β* and *D. subcostatus* all belong to the same species. As a result, the names *Derelomus subcostatus* Fåhraeus, 1844 and *Derelomus chamaeropis* var. *β* Gyllenhal, 1836 are proposed as junior synonyms [new synonymy] of *Derelomus chamaeropis* (Fabricius, 1798). The elements used to reach this conclusion are detailed hereafter.

Derelomus chamaeropis was described on a female from N Morocco. This species is specific to *Chamaerops humilis* (see Life history section below) and follows the distribution range of this palm in the western Mediterranean region (Caldara *et al.* 2013). *Derelomus subcostatus* was described from a male specimen from Sardinia Island (Italy), the specimens related to this species being also associated with *C. humilis* (Veyret 1940). The limited details in the original descriptions and the substantial intraspecific variation found in *D. chamaeropis* have resulted in confusions in the interpretation of both species. For some authors, *D. subcostatus* is a valid species occurring in sympatry with *D. chamaeropis* (Tempère & Péricart 1989; Caldara *et al.* 2013) while others treat it as a morphological variant of *D. chamaeropis* (Hoffmann 1958). In order to clarify this situation, fourteen populations (1–4 specimens per population) were sampled across the distribution range of *C. humilis* (France, mainland and Corsica Island; Italy, Sicily and Pantelleria Island; Morocco and Spain; see detail in Other material section) and sequenced for the standard barcode fragment (see Material and methods section for protocol). This sampling included specimens identified by direct comparison with the holotypes: a female specimen of *D. chamaeropis* from Morocco (JHAR03220-02) and a male specimen of *D. subcostatus* from Italy (Sicily; JHAR04886-08). The populations from Spain also included specimens related to the varieties α and *β* of *D. chamaeropis* (male with or without costate elytra, with or without dark head and pronotum; Fig. 24A–C). *Derelomus chamaeropis* was recovered as a single species for all the species delimitation methods used (Fig. 34), despite intraspecific distances ranking up to 3.4% between specimens from Morocco (KC783895) and Spain (JHAR07851-02). Also, the variations observed at population level in the male are not associated with genetic divergences in mitochondrial sequences (Fig. 33). As such, all specimens previously referred to as *D. chamaeropis* and *D. subcostatus* are in fact a unique species forming a ring of more or less isolated populations distributed in the western mediterranean area. This phylogeographic pattern is typical of Mediterranean species and results from the isolation of populations in southern European refugia during glacial maxima (Hewitt 2000). This pattern is also in agreement to some extent with the genetic structure of *Chamaerops humilis* that shows substantial differentiation among populations across its distribution range (De Cauwer *et al.* 2025). This may suggest that both this palm and its associated pollinator experienced similar fragmentation of distribution range during glacial maxima. At population level, specimens show substantial morphological variation, in particular in males, a condition widely encountered in weevils engaged in brood-site pollination (Haran *et al.* 2020, 2023a) and not associated with genetic divergence.

The Sardinian specimen used by Boheman to describe *Derelomus subcostatus* combines the two factors of morphological variability in *D. chamaeropis*: it is slightly morphologically divergent from populations from Morocco used to describe *D. chamaeropis* (rostrum comparatively short) and exhibits the costate elytra of a ‘major’ male, thus showing a substantial apparent divergence with the female holotype of *D. chamaeropis*. But as detailed above, all these specimens belong to the same species. The species name *Ochrinulus antigae* Reitter, 1887 was set in synonymy with *Derelomus chamaeropis* (Fabricius 1798) by Reitter himself (Reitter 1887), the specimen used to describe this species was collected in Barcelona (Spain) [not verified in the context of this study].

Derelomus piriformis (Hoffmann, 1938)
Fig. 25

Pseudoderelomus piriformis Hoffmann, 1938a: 107.
Derelomus kocheri Hoffmann, 1957: 83. **Syn. nov.**

Neoderelomus piriformis – Hoffmann 1938b (genus name preoccupied). — Abbazi & Osella 1992 (distribution). — Piry & Gompel 2002 (description of larva, biology, distribution). — Alonso-Zarazaga & Lyal 1999 (distribution). — Meekijjaroenroj & Anstett 2003 (biology).
Derelomus piriformis – Franz 2006: 275 (new combination). — Haran *et al*. 2022a (phylogenetic relationship).

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the combination of a uniformly pale brown integument, and males with the elytra widest beyond the middle of the length, protibiae with an internal comb of elongate setae and a comparatively moderately long rostrum (4.5–5 × as long as wide in dorsal view). Females can be distinguished by the distinct narrowing at the base of the rostrum. *Derelomus piriformis* is closely related and sometimes sympatric with *D. chamaeropis*, but in the latter species, males have the elytra slightly convex in dorsal view and the protibiae lacking an internal comb (very convex elytra and protibiae with a comb of setae in *D. piriformis*) and females have a shorter and wider rostrum (Fig. 24D). Uncorrected *p*-distances between these species range from 8.0 to 8.8%. GenBank accession number for the corresponding DNA barcode: OK188814.

Material examined

Lectotype of *Pseudoderelomus piriformis* (here designated)
MADEIRA • ♂; "Funchal; Madère;15.8.1936; Balachowsky [Alferd Balachowsky, french entomologist]" "*Pseudoderelomus*; *piriformis*; Hoffm." "genotype; TYPE" "TYPE[red label]" "Museum Paris; 1968; Col. A. Hoffmann" "Lectotype ♂; *Derelomus piriformis*; (Hoffmann, 1938); J. Haran des. 2025"; MNHN.

Holotype of *Derelomus kocheri* Hoffmann, 1957
MOROCCO • ♀; "Rabat (Maroc); (Kocher) 10. 52 (Oct. 1952]" "*Derelomus*; *kocheri* m.[me, handwritten by Hoffmann]; A. Hoffmann det." "Typus [red label]" "Museum Paris; 1968; Col. A. Hoffmann" "Holotype ♀; *Derelomus*; *kocheri*; Hoffmann, 1957; J. Haran 2025" "*Derelomus*; *piriformis* (Hoff.); Haran det. 2024"; MNHN.

Paralectotype
MOROCCO • 1 ♂; Rabat; 34°02′47.0″ N, 6°50′25.0″ W; 1 Feb. 1930; Bremond coll.; MNHN.

Other material
FRANCE • 4 ♂♂, 12 ♀♀; Hérault, Aéroport de Maugio; 43°33′57″ N, 3°57′00″ E; 5 Nov. 2000; S. Piry coll.; male inflorescences of *Phoenix canariensis*; MNHN • 2 ♂♂, 1 ♀; Montpellier, Hopital Gui de Chauliac; 43°37′56″ N, 3°51′18″ E; 1 Nov. 2000; S. Piry coll.; male inflorescences of *Phoenix canariensis*; CBGP • 2 ♂♂, 1 spec. (preserved in ethanol); Corsica, Macinaggio; 42°57′32″ N, 9°27′10″ E; 8 Oct. 2015; J. Haran coll.; male inflorescences of *P. canariensis*; CBGP • 1 ♀; Le Cannet; 43°34′41″ N, 7°00′26″ E; 8 Aug. 1954; P. Bonadona coll.; PW • 1 ♂; La Garde; 43°07′30″ N, 6°01′19″ E; 9 Jul. 1953; P. Veyret; PW • 1 ♀; La Garde; 43°07′30″ N, 6°01′19″ E; 7 Nov. 1952; P. Veyret; PW • 1 ♂, 2 ♀♀; Toulon; 43°08′13″ N, 5°55′26″ E; Dec. 1936; P. Veyret; PW • 1 ♂; Toulon; 43°08′13″ N, 5°55′26″ E; Nov. 1936; P. Veyret; PW • 1 ♀; Nice, Jardin Alsace Lorraine; 43°41′52″ N, 7°15′26″ E; 28 Feb. 1999; S. Piry coll.; ex. flowers of *Phoenix* sp.; CBGP.

ITALY • 3 ♂♂, 3 ♀♀; Western Liguria, Varigotti; 44°10′52″ N, 8°23′54″ E; 4 Oct. 1966; G. Bartoli coll.; *Phoenix* sp.; JHAR07418; CBGP • 1 ♂; Roma, Tuscolano; 41°52′12″ N, 12°32′18″ E; 17 Sep. 1946; L. Magnano coll.; at light; NHMUK.

MOROCCO • 1 ♀; Oujda; 34°40′23″ N, 1°54′18″ W; 13 Dec. 1998; G. Chavanon coll.; on the ground; JHAR7419; CBGP.

PORTUGAL • 1 ♂, 1 ♀; Porto Santo Island [Madeira archipelago]; 33°03′50″ N, 16°19′26″ W; 3 Apr. 2015; J-D. Chapelin Viscardi coll.; male inflorescences of *P. canariensis*; JHAR2983; CBGP.

SPAIN • 1 ♀; Las Palmas de Gran Canaria, Santa Catalina area; 28°08′21″ N, 15°26′11″ W; 10 Mar. 1903; P. Lesne coll.; emerged from plant debris collected at base of *Tamarix* L. sp.; MNHN • 1 ♂; Melilla [located on the northern coast of Morocco]; 35°18′04″ N, 2°56′13″ W; May 1951; F. Codina coll.; MNHN • 1 ♀; Melilla; 35°18′04″ N, 2°56′13″ W; Dec. 1951; Prado Alcaide coll.; MNHN.

UNITED STATES OF AMERICA • 1 ♂; California, Roseville; 38°45′41.3″ N, 121°17′22.2″ W; 31 Aug. 2020; G. Forister coll.; (https://bugguide.net/).

Redescription (♂)

Measurements. Body length 3.0–3.5 mm.

Color. Body integument uniformly pale brown, apex of rostrum slightly darker; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum slightly longer than pronotum in lateral view (1.1 ×), regularly and moderately downcurved; in dorsal view 4.5–5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; base of rostrum slightly constricted laterally; antennae inserted near apical ¼ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2.8 × as long as wide, slightly longer than segments 2–3 together, 2 about 2 × as long as wide, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.50–1.63), widest at base, 0.95 × as wide there as elytra at humeral angles, sides slightly convex, converging regularly from base to apex; apical constriction distinct, about as deep as width of scape at base; integument dull, punctures superficial, hardly visible among granules.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.85); sides strongly convex, widest beyond middle of length; humeri raised; apex jointly rounded or notched at level of suture; striae with punctures about ¼–⅕ as wide as width of interstriae; interstriae flat, interstriae 5 raised, more so between basal and apical 1/6 of length, 9 flat, enlarged and merged with 10th at base; scutellar shield rounded, coated with few small recumbent scales, not concealing integument.

Abdomen. Underside with ventrites uniformly pale brown, with overlapping whitish setae, usually longer in middle of each ventrite. Stridulatory plate with lines of 8 granules ½ × as long as median line, slightly convex. Central sclerotized area longer than wide, rounded at base (Fig. 25F).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal slightly bisinuate, bearing a comb of setae on apical ¾ of length, setae about as long as 4th tarsomere; claws simple.

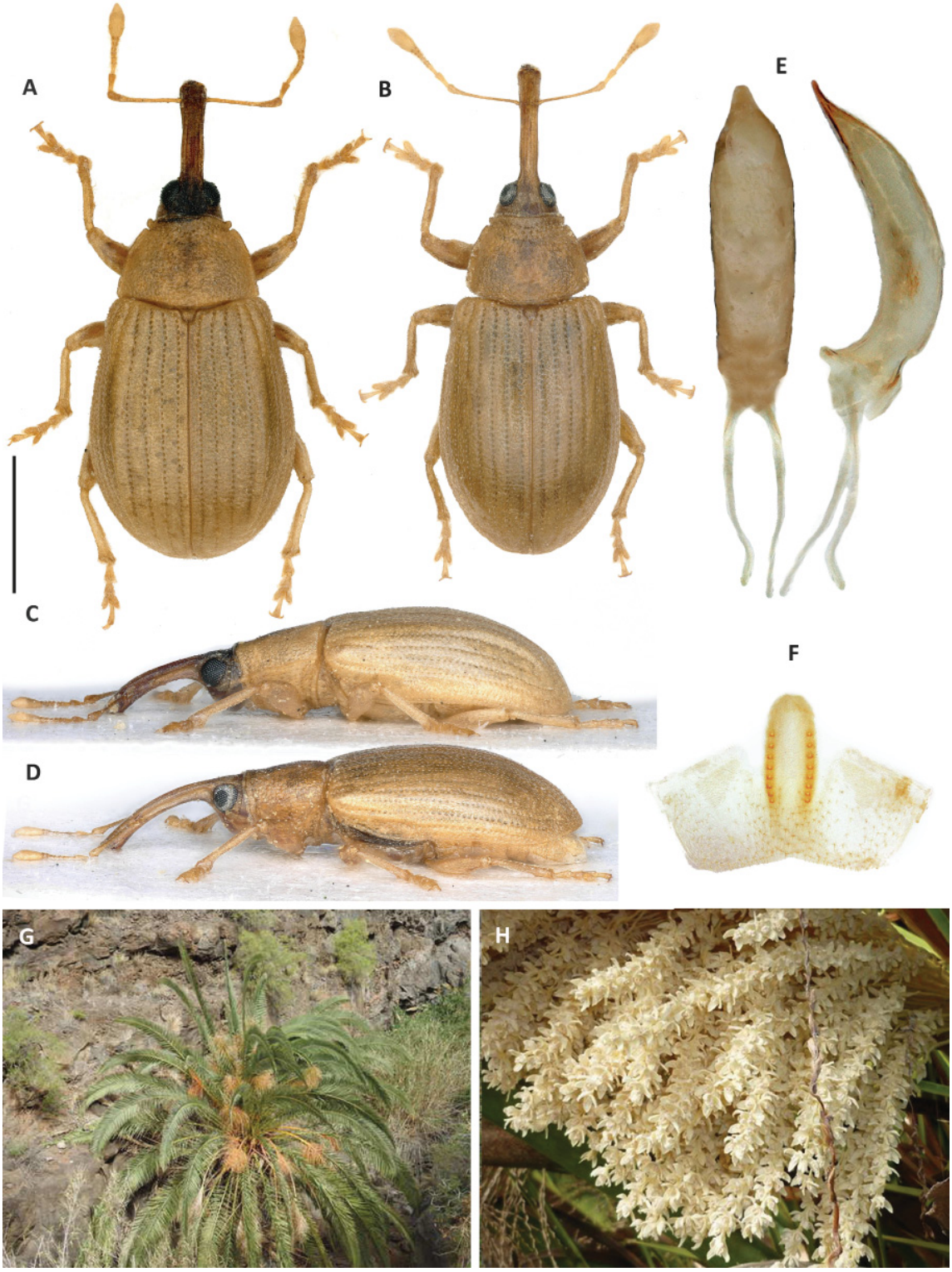

Fig. 25. Habitus and life history of *Derelomus piriformis* (Hoffmann, 1938). **A**. Lectotype, ♂, habitus in dorsal view (Madeira, MNHN). **B**. ♀, habitus in dorsal view (Italy) (JHAR07418-02, CBGP). **C**. Same as A, ♂, habitus in lateral view. **D**. Same as B, ♀, habitus in lateral view. **E**. Same as A, penis in dorsal (left) and lateral (right) views. **F**. Same as A, stridulatory plate. **G**. The Canary Island date palm (*Phoenix canariensis* H.Wildpret; Arecaceae) in natural habitat (credit: Gertjan van Noord). **H**. Male inflorescences in anthesis of *P. canariensis* (credit: Jesús Cabrera). Scale bar: A–D = 1 mm; E–H not to scale.

Terminalia. Body of penis elongate (W : L ratio: 0.27), about 1.5 × as long as apodemes; sides slightly convex in dorsal view, widening from base to apical ⅓, from there converging apicad, converging abruptly in apical 1/6, apex rounded; in lateral view curvature stronger in basal ⅖ of length, width narrowing regularly from near ½ of length, apex acute, straight (Fig. 25E).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is more shiny and distinctly narrowed near base. In lateral view, rostrum is distinctly longer (1.25 ×) than pronotum in females (1.1 × in males; Fig. 25C–D). The antennae are inserted near the apical ⅓ in females (¼ in males).

Life history

This species is the specific brood-site pollinator of *Phoenix canariensis* (Arecaceae), the Canary Island date palm. Adults visit male inflorescences at anthesis stage. Development of larvae and pupae takes place in the enclosed flowers. The development continues on the ground after flower abscission, the declining flower forming a cell protecting the pupa. Each flower hosts only one larva (Piry & Gompel 2002). In this pollination by deceit system, adults carrying pollen and searching for male inflorescences are inadvertently attracted by female inflorescences (producing similar olfactory clues) where they transfer pollen to stigma (Meekijjaroenroj & Anstett 2003). *Derelomus piriformis* was also recorded on male inflorescences of *Chamaerops humilis* in the South of France (Veyret 1940, identified as *D. subcostatus* in the latter paper), but there is no evidence that it can use this palm for larval development. Adult specimens may be found active on its hosts as long as male inflorescences in anthesis are available. This flowering phenology seems to vary across areas of introduction, from late summer to late autumn in the south of France (Piry & Gompel 2002), all year round in Israel (Friedman 2006). Adults are attracted by UV lights (Piry & Gompel 2002).

Distribution

This species is native to the Canary Island where *Phoenix canariensis* originates. This palm is widely traded and planted for ornamental purposes, and *D. piriformis* has probably been transported simultaneously. It is now widely distributed in the Mediterranean region and Madeira Island (sorted by date of first record): Morocco, 1930 (Hoffmann, 1938); Madeira (Portugal) & France, 1936 (Hoffmann 1938; Veyret, 1940; PW collection); Italy, 1966 (CBGP coll.; Abbazzi & Osella 1992); Israel, 1976 (Friedman 2006); Greece, 1990 (Kakiopoulos *et al.* 2022); Corsica Island (France), 2015 (CBGP coll.). Further records: Canary Islands and Spanish mainland (Caladara 2013). Introduced to South America (Chile) with its host plant (Elgueta & Marvaldi 2006) and to North America (California).

Remarks

In A. Hoffmann's collection housed at MNHN, three specimens corresponding in all aspects to the material listed in the original description of *D. piriformis* and bearing a red type label were located. As no specific specimen was designed in the type series, a specimen (Funchal, Madeira) was designated as the lectotype for this species [here designated] and was relabelled accordingly. The two other specimens from the series (Rabat, Morocco) were labelled as paralectotypes. Due to the uncommon sexual dimorphism in this species (males have the elytra more convex than females, a condition rare in weevils), the specimens considered by A. Hoffmann as males are in reality females, and conversely (Piry & Gompel 2002). The sex of specimens reported above corresponds to verified specimens, based on dissection when necessary. In the same collection, a female specimen labelled "*Derelomus kocheri*" by the hand of Hoffmann and bearing a red type label was located. For the reasons described above, this specimen is not a male as reported in the original description but a female one. This specimen is the holotype of *Derelomus kocheri* Hoffmann, 1957 and was labelled accordingly. Detailed examination of external and internal morphological features of this specimen and comparison with type and non-type

material of *D. piriformis* from various regions revealed no relevant differences. In addition, the type locality of *D. kocheri* (Rabat, Morocco) is the same as the paralectotype of *D. piriformis*. As a result of this, the species name *Derelomus kocheri* Hoffmann, 1957 is proposed as a junior synonym of *Derelomus piriformis* (Hoffmann, 1938) [new synonymy].

Due to the early introduction of *D. piriformis* around the Mediterranean Sea and to the unclear taxonomic definition of *D. subcostatus* Boheman, 1844 (= *D. chamaeropis* (Fabricius, 1798), see Remarks section under that species), many specimens referred to as *D. subcostatus* in early collections and publications correspond to *D. piriformis* in reality. This is relevant to the publication of Veyret (1940).

Derelomus peglerae Haran sp. nov.
urn:lsid:zoobank.org:act:D4FD6AE5-7DD0-4898-AED8-8A9817BFEB0C
Fig. 26

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the combination of very long and almost straight rostrum, only slightly downcurved in lateral view (Fig. 26A–C) and an elytral pattern forming longitudinal dark strips near the middle of the length of interstriae 3–4. This species is unique in having a series of only 3 granules on the stridulatory plate (Fig. 26E). GenBank accession number for the corresponding DNA barcode: ON553433/PV698480–81.

Etymology

The species is dedicated to Alice Marguerite Pegler (1861–1929), pioneer field botanist and entomologist in the Eastern Cape Province of the Republic of South Africa. Through observations and specimens' collection, she was an early contributor to the recognition of the importance of beetles, including weevils in the pollination of Cycads. She also collected the series used by Hesse to describe *D. postfasciatus*.

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA – **Limpopo Province** • ♂; "South Africa, Tvl.; Hans Merensky Nat.; Res. 23.42S 30.44E [23°41′42.0″ S 30°40′05.2″ E]; 23-25.i.1987; R. Oberprieler" "collected on; leaves of; *Phoenix*; *reclinata*" "National coll.; of insects; Pretoria, S. Afr" "Holotype ♂; *Derelomus peglerae*; Haran, 2025"; SANC.

Paratypes

ANGOLA • 1 ♂, 1 ♀; no precise locality; 7 Jun. 1928; NHMUK.

ETHIOPIA • 1 ♀; "Abyssinie" [no precise locality]; 1882; A. Raffray; MNHN.

KENYA • 2 ♂♂; Nairobi, Scottlab [now the National Agricultural Research Laboratories, NAR]; 1°15′29.2″ N, 36°46′23.1″ E; 30 March 1947; R.H. Le Pelley coll.; on *Tecoma* Juss. sp.; NHMUK.

REPUBLIC OF SOUTH AFRICA – **Eastern Cape Province** • 1 ♂, 1 ♀; Mbotyi campsite; 31°27′54.0″ S, 29°43′48.0″ E; Dec. 2009; Ş. Procheş coll.; male and female inflorescences of *Phoenix* sp.; JHAR07433; CBGP. – **KwaZulu-Natal Province** • 4 ♂♂, 2 ♀♀, 2 specs (preserved in ethanol); St Lucia; 28°22′59.8″ S, 32°24′33.4″ E; 5 Jan. 2019; J. Haran coll.; male inflorescence of *Phoenix reclinata*; JHAR02043; CBGP • 1 ♂; iSimangaliso Wetland Park, Ozabeni, 3 km SSW of Sodwana Camp; 27°38′10.8″ S, 32°34′55.2″ E; 22 Oct. 2014; E Grobbelaar coll.; SANC-MCOL-0374/JHAR02335; SANC. – **Limpopo Province** • 1 ♀; Nwanedi Provincial Park; 22°37′34.8″ S, 30°24′21.6″ E; 8 Feb.

1994; R. Oberprieler coll.; collected from *Phoenix reclinata*; SANC • 1 ♂; Hans Merensky Nature Reserve; 23°41′42.0″ S, 30°40′05.2″ E; 23–25 Jan. 1987; R. Oberprieler coll.; collected on leaves of *Phoenix reclinata*; SANC • 5 ♂♂, 2 ♀♀; same collection data as for preceding; ANIC • 1 ♂, 2 ♀♀; Mmabolela Estate; 22°37′52″ S, 28°16′34″ E; 20–24 Nov. 1994; F. Genier coll.; savanna light trap; CMNC. – **Mpumalanga Province** • 1 ♂; Kruger Park, Satara Camp; 24°23′40.0″ S, 31°46′41.6″ E; 15–17 Dec. 1985; S. and J. Peck coll.; *Acacia* grasslands; CMNC. .

UGANDA • 2 ♀♀; Kawanda; 0°25′12.0″ N, 32°32′24.0″ E; 15 Feb.–6 Mar. 1958; P. Whalley; mercury vapor light trap; NHMUK.

Redescription (♂)

Measurements. Body length 2.8–3.6 mm.

Color. Body integument uniformly pale brown, club, medial line of pronotum dark brown, apex of rostrum, postocular strip also dark in some specimens, more rarely with a longitudinal dark strip near middle of length of interstriae 3–4; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum distinctly longer than pronotum in lateral view (1.28 ×), slightly and regularly downcurved; in dorsal view about 5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted near apical ¼ of length; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2.5 × as long as wide, slightly longer than segments 2–3 together, 3–4 isodiametric, 5–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.35–1.41), widest near base, narrower there than elytra at humeral angles (0.75 ×), side slightly rounded, converging apicad, forming notch or blunt tooth near middle of length; apical constriction superficial, less deep than width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, wider or narrower than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.73–0.77); sides slightly convex, widest near middle of length; humeri raised; apex rounded, notched or jointed at level of suture; striae with punctures about ⅓ to ¼ as wide as width of interstriae; interstriae flat or slightly convex, 5 raised into carina; scutellar shield rounded, concolorous, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 3 granules ⅖ × as long as median line from base, space between granules 2–3 × as wide as diameter of a granule. Central sclerotized area wide, wider than long, truncate at base (Fig. 26E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, at most as long as claws; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.26), 2 × as long as apodemes; sides concave in basal ⅔, convex in apical ⅓ in dorsal view, narrowing apicad in apical ¼, apex truncate; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from apical ⅓, apex curved upward (Fig. 26D).

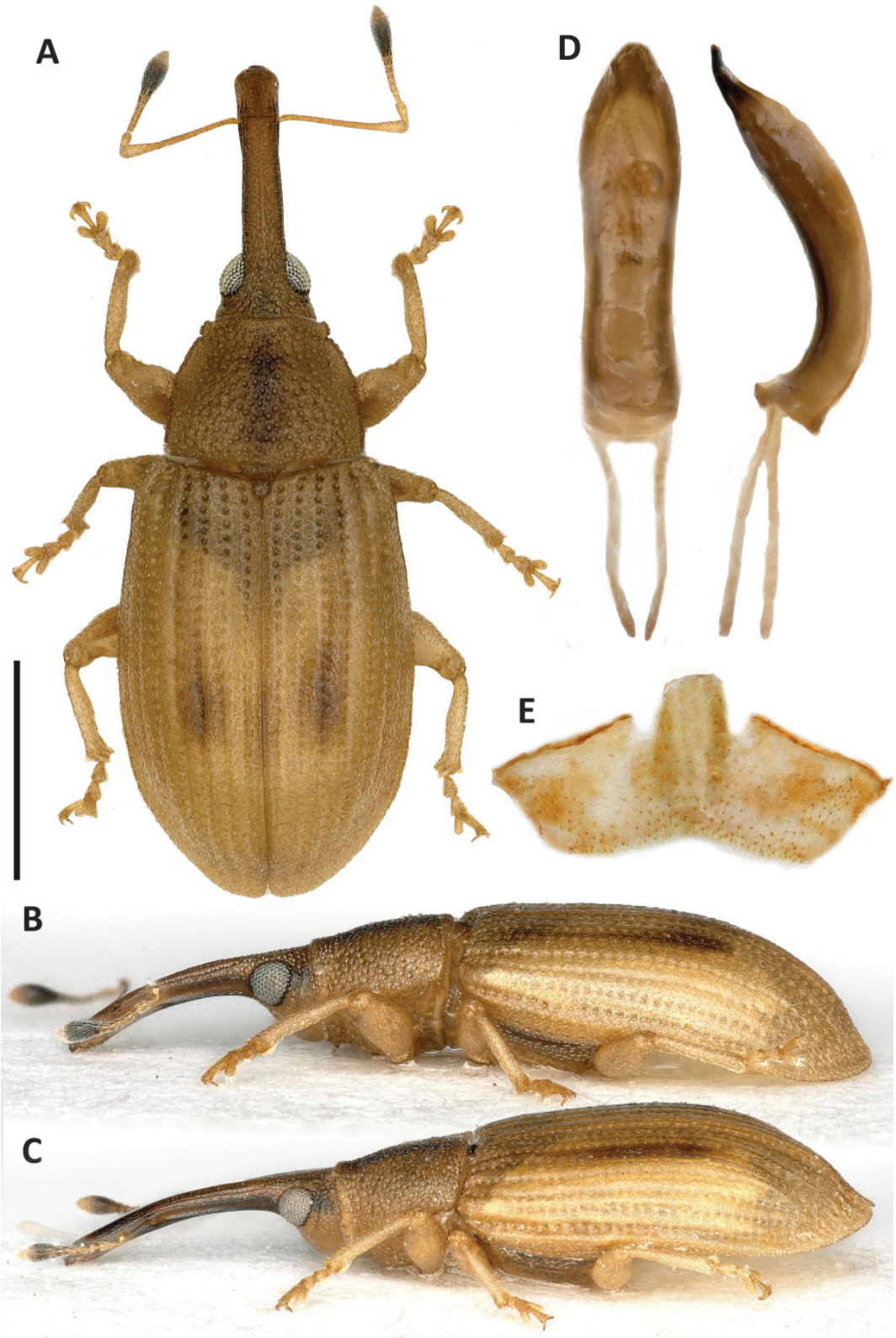

Fig. 26. Habitus of *Derelomus peglerae* Haran sp. nov. **A–B, D–E**. Paratype, ♂ (Republic of South Africa) (JHAR02043-03, CBGP). **C**. Paratype, ♀ (same locality) (JHAR02043-01, CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Sexual dimorphism

Female can be distinguished from males by the longer rostrum, 1.5 × as long as pronotum in lateral view (1.28 × in males). The antennae are inserted at the apical ⅖ of the rostrum (¼ in males).

Life history

Adults are found on male inflorescences of *Phoenix reclinata* (Arecaceae), which probably constitutes the habitat for the larvae. This species is found on its host in sympatry with *D. costiger* Marshall, 1958 and *D. bivirgatus* Marshall, 1951. Adults were recorded in June, October and from December to March.

Distribution

Derelomus peglerae sp. nov. is known from Angola, Ethiopia, the Republic of South Africa and Uganda. In the Republic of South Africa, it was recorded from the coastal regions of the Eastern Cape and KwaZulu-Natal provinces, and inland in the Limpopo Province.

Derelomus baka Haran sp. nov.
urn:lsid:zoobank.org:act:288FC910-5687-42E8-A423-8C0643C74AC7
Fig. 27

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the combination of **a** rostrum distinctly longer than the pronotum in lateral view, the concolorous club and the elytra with a single dark spot near the middle of the suture. This species is close to *D. antonioui*, but in the latter species, the protibiae lack a comb of erect setae in the male and the body of the penis is more elongate.

Etymology

The species is dedicated to the Baka people, semi-nomadic hunter-gatherers of central Africa, including Cameroon. These people live in a remarkable and non-destructive equilibrium with forest ecosystems enabling the maintaining of the high biodiversity of these biomes.

Material examined

Holotype

CAMEROON • ♂; "Foumbot [5°30′21.6″ N 10°38′02.4″ E]; fév. [February] 67 [1967]" "Cameroun; B. de Miré [P. Bruno de Miré, french entomologist]" "Holotype ♂; *Derelomus baka*; Haran, 2025"; MNHN.

Description (♂)

Measurements. Body length 3.0 mm.

Color. Body integument pale brown, apex of rostrum and reversed triangular spot extending on middle of length of interstriae 1–4 dark brown, head and pronotum darker than elytra; elytra and pronotum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum distinctly longer than pronotum in lateral view (1.22 ×), slightly and regularly downcurved; in dorsal view about 4.5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted near apical ¼ of length; head capsule densely punctate in dorsal view, forehead slightly concave; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, slightly longer than segments 2–3 together, 3–7 transverse.

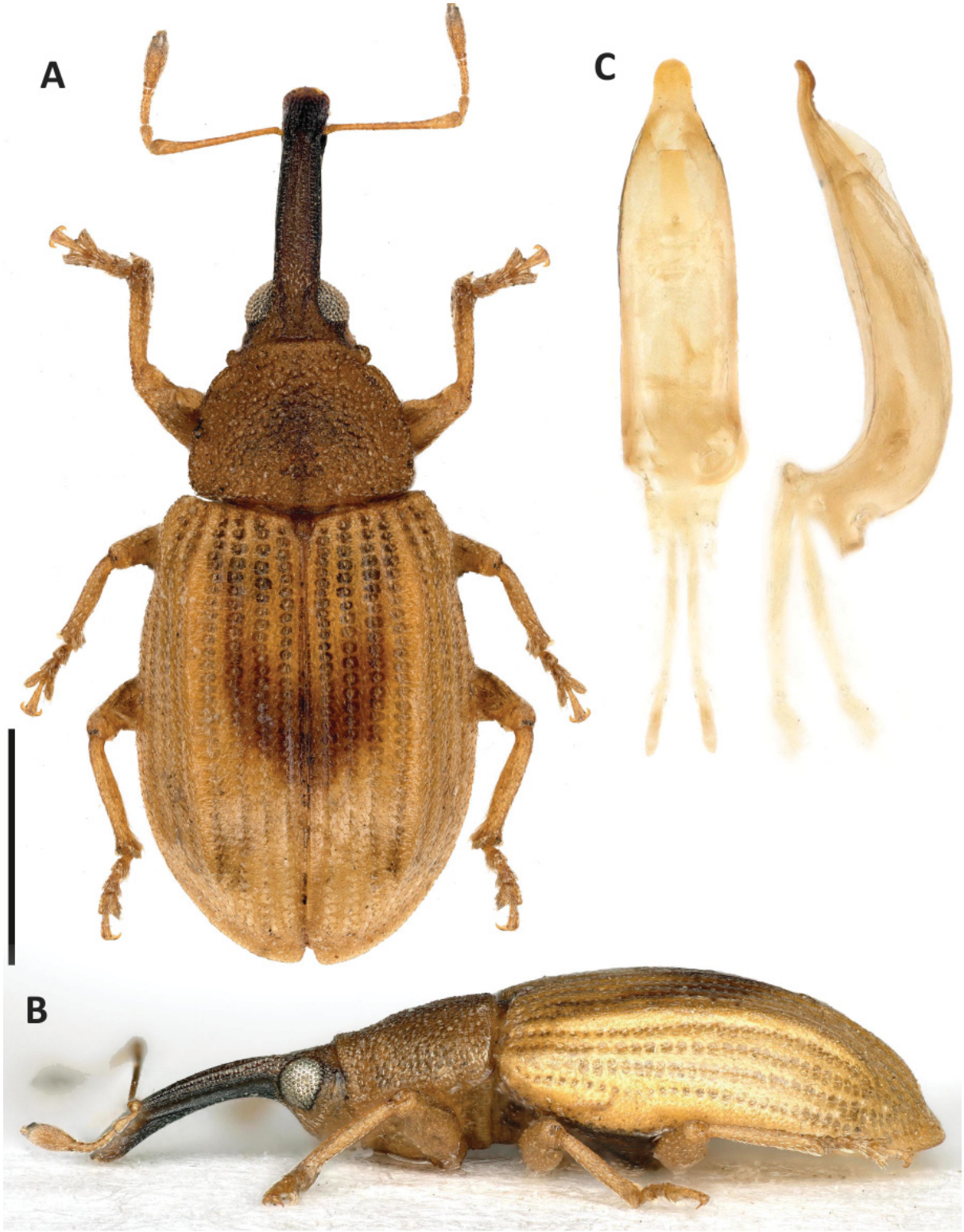

Fig. 27. Habitus of *Derelomus baka* Haran sp. nov., holotype, ♂ (Cameroon) (MNHN). **A**. Habitus in dorsal view. **B**. Habitus in lateral view. **C**. Penis in dorsal (left) and lateral (right) views. Scale bar: A–B = 1 mm; C not to scale.

Pronotum. Wider than long (W : L ratio: 1.32), widest near base, slightly narrower there than elytra at humeral angles (0.85 ×), side slightly rounded, converging apicad, forming a small notch near middle of length; apical constriction as deep as width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, generally narrower than diameter of punctures in middle.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.76); sides convex, widest near middle of length; humeri raised; apex rounded, notched at level of suture; striae with punctures about ⅓ to ¼ as wide as width of interstriae; interstriae flat or slightly convex, 5 raised into carina; scutellar shield rounded, concolorous, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, with comb of erect setae on apical ½ of length, setae longer than a claw; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.27), about 1.5 × as long as apodemes; sides subparallel in basal ⅔ of length, converging in apical ⅓ in dorsal view, forming short spatula in apical 1/7, apex rounded; in lateral view curvature stronger in basal ⅓ of length, width narrowing regularly from middle of length, apex bisinuate (Fig. 27C).

Life history

Host plant unknown, the holotype was collected in February.

Distribution

Cameroon.

Remarks

A unique male specimen is known for this species. The stridulatory plate was damaged during the dissection and is therefore not displayed.

Derelomus bivirgatus Marshall, 1951
Fig. 28

Derelomus bivirgatus Marshall, 1951: 841.

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the strong curvature of the rostrum in lateral view (Fig. 28B–C) and the sides of the elytra are very convex in the male. Such a strong curvature of the rostrum is only met in *D. brevis*, but in the latter species, the rostrum and the body are shorter and the sides of the elytra are moderately convex in the males (Fig. 21A–C). GenBank accession numbers for the corresponding DNA barcodes: PV698441–42–43.

Material examined

Lectotype (here designated)
KENYA • ♂; "Type [red label]" "Mac Arthur; Makindu [Kenya, 2°16′37.2″ S 37°49′08.4″ E] 5 37 [May 1937]" "Press by; Com Inst Ent; B M 1951-179" "*Derelomus*; *bivirgatus* Mshl.; type ♂" "LECTOTYPE ♂; *Derelomus*; *bivirgatus*; Marshall, 1951; Haran des. 2025"; NHMUK.

Paralectotypes
KENYA • 6 ♂♂, 7 ♀♀; Makindu; 2°16′37.2″ S, 37°49′08.4″ E; May 1937; Mac Arthur coll.; NHMUK.

Other material
REPUBLIC OF SOUTH AFRICA – **KwaZulu-Natal Province** • 5 ♂♂, 4 ♀♀, 2 specs (preserved in ethanol); St Lucia; 28°22′59.8″ S, 32°24′33.4″ E; 5 Jan. 2019; J. Haran coll.; male inflorescence of *Phoenix reclinata*; JHAR02044; CBGP • 2 ♀♀; Kloof; 29°47′06.0″ S, 30°50′10.8″ E; Aug. 1926; R.E. Turner coll.; NHMUK.

UGANDA • 2 ♂♂, 1 ♀; Kawanda; 0°25′12.0″ N, 32°32′24.0″ E; 15 Feb.–6 Mar. 1958; P. Whalley; mercury vapor light trap; NHMUK.

Redescription (♂)

Measurements. Body length 2.5–3.2 mm.

Color. Body integument pale brown, club, apex of rostrum, post-ocular area, scutellar shield and median line of pronotum usually darker or dark brown, basal ⅗ of 4th interstriae and 1st interstriae at ⅗ of length generally dark brown, forming empty rectangle on elytra; dorsum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum slightly longer than pronotum in lateral view (1.07 ×), strongly and regularly downcurved, almost forming quarter circle; in dorsal view about 3.5–3.7 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted at apical ¼ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, as long as segments 2–3 together, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.54), widest near base or at basal ⅓ of length, a little narrower there than elytra at humeral angles (0.83 ×), side rounded, converging apicad, forming notch and blunt tooth near middle of length; apical constriction distinct, about as deep as width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, wider or narrower than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. A little longer than wide (W : L ratio: 0.90); sides strongly convex, widest near basal ⅖ of length; humeri not distinct from the lateral curvature of elytra; apex rounded, notched or jointed at level of suture; striae with punctures about ⅓ to ¼ as wide as width of interstriae; interstriae flat, 5 slightly raised on basal ⅗ of length; scutellar shield rounded, generally darker than elytra, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 9 granules more than ¾ as long as median line from base, space between granules 2–3 × as wide as diameter of a granule. Central sclerotized area isodiametric, truncate at base (Fig. 28E).

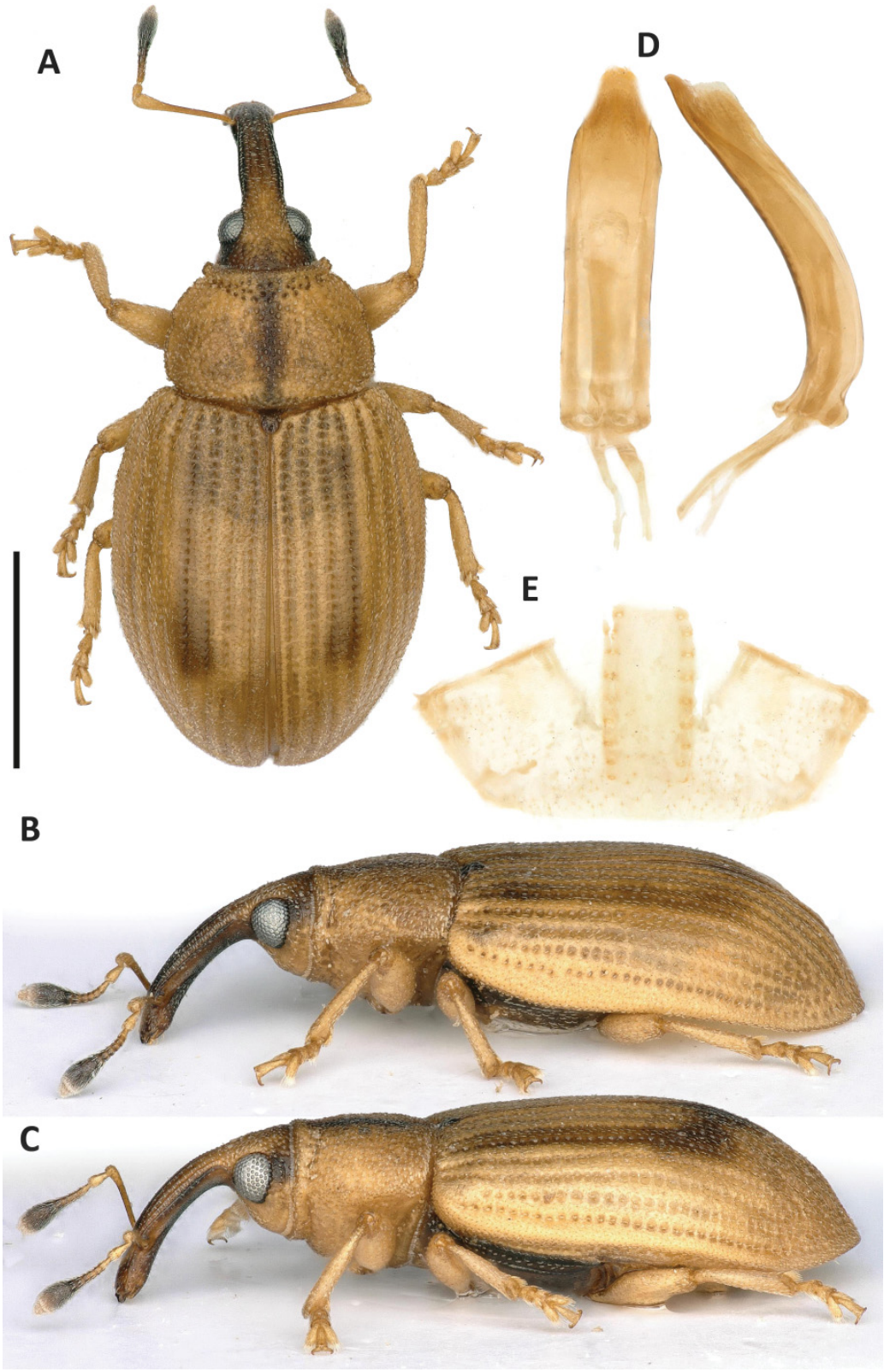

Fig. 28. Habitus of *Derelomus bivirgatus* Marshall, 1951. **A–B, D–E**. ♂ (Republic of South Africa) (JHAR02044-03, CBGP). **C**. ♀ (same locality) (JHAR02044-04, CBGP). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, shorter than length of claws; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.24), about 2 × as long as apodemes; sides subparallel, in dorsal view, narrowing apicad in apical ¼ of length, apex rounded; in lateral view curvature moderate but stronger in basal ½ of length, width narrowing regularly apicad from ½ of length, apex acute, straight (Fig. 28D).

Sexual dimorphism

Female can be distinguished from males by the rostrum slightly more downcurved in lateral view and with antennae inserted at the apical ⅓ of the length (¼ in males). The elytra of females are also longer (W : L ratio: 0.78–0.83) than those of males (W : L ratio: 0.90).

Life history

This species was collected on male inflorescences of *Phoenix reclinata*, which probably constitutes the substrate for the larvae. Adults were collected in January, February, March, May and August.

Distribution

In our current knowledge only known from Kenya, Uganda and in the coastal region of the KwaZulu-Natal Province of the Republic of South Africa.

Remarks

In the collection housed at NHMUK, a male specimen from Makindu labelled "*Derelomus bivirgatus* Mshl., Type ♂" and bearing a red type label was located. As the description of this species does not refer to a specific type specimen, this male is designated as the lectotype for *Derelomus bivirgatus* Marshall, 1951 [here designated] and was labelled accordingly. The rest of the specimens were labelled as paralectotypes. Specimens from Kenya and the Republic of South Africa show slight morphological differences, in the latter the rostrum is more downcurved basally in both sexes. These differences are related to regional variation, as observed in other species distributed in Eastern and Southern Africa (*D. fasciatus*, *D. pallidus*, etc).

Derelomus crypticus Haran sp. nov.
urn:lsid:zoobank.org:act:D4075549-2910-459F-877E-6C443AD6F105
Fig. 29

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the comparatively strong curvature of the rostrum in lateral view (Fig. 29B–C) and the sides of the elytra moderately convex in males in dorsal view. This species is very close to and sympatric with *D. bivirgatus* but the latter is larger and has a longer rostrum (Fig. 28A–C). The new species is genetically well distinguished from *D. bivirgatus* (Fig. 34). GenBank accession number for the corresponding DNA barcode: ON553424.

Etymology

The specific epithet refers to the cryptic nature of this rare species. Specimens were first identified as aberrant forms of *D. bivirgatus* and the use of molecular data was critical for its recognition as a distinct species.

Material examined

Holotype

KENYA • ♂; "Mac Arthur; Makindu [Kenya, 2°16′37.2″ S 37°49′08.4″ E] 5 37 [May 1937]" "Press by; Com Inst Ent; B.M. 1981-315" "HOLOTYPE ♂; *Derelomus*; *crypticus*; Haran 2025"; NHMUK.

Paratype

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 1 ♀; Pringle Bay; 34°21′00.0″ S, 18°49′48.0″ E; 28 Nov. 2019; J. Haran coll.; on male inflorescence of *Phoenix reclinata*; JHAR03078-03; CBGP

Description (♂)

Measurements. Body length 2.0 mm.

Color. Body integument pale brown, head, club, the median line of pronotum slightly darker; pattern on elytra forming elongated dark spot beyond middle of length of interstriae 4, slightly extending on interstriae 3 and 5; dorsum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum as long as pronotum in lateral view, strongly and regularly downcurved, almost forming a quarter circle; in dorsal view about 3.5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted at apical ¼ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 1.5 × as long as wide, slightly longer than segments 2–3 together, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.43), widest in basal ⅔ of length, slightly narrower there than elytra at humeral angles (0.95 ×), side subparallel in basal ⅔, converging apicad in apical ⅓, forming blunt tooth beyond middle of length; apical constriction distinct, shallow, less deep than width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, generally wider or narrower than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. Longer than wide (W : L ratio: 0.76); sides a little convex, widest near middle of length; humeri distinct; apex rounded and jointed at level of suture; striae with punctures about ½ to ⅓ as wide as width of interstriae; interstriae slightly convex; scutellar shield rounded, a little darker than elytra, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 6–7 granules about ¾ as long as median line from base, space between granules 2–3 × as wide as diameter of a granule. Central sclerotized area isodiametric, rounded at base.

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, shorter than length of claws; claws simple.

Sexual dimorphism

The female can be distinguished from males by the rostrum which slightly more downcurved basally in lateral view and by the antennae inserted at the apical ⅓ of the length (¼ in the male).

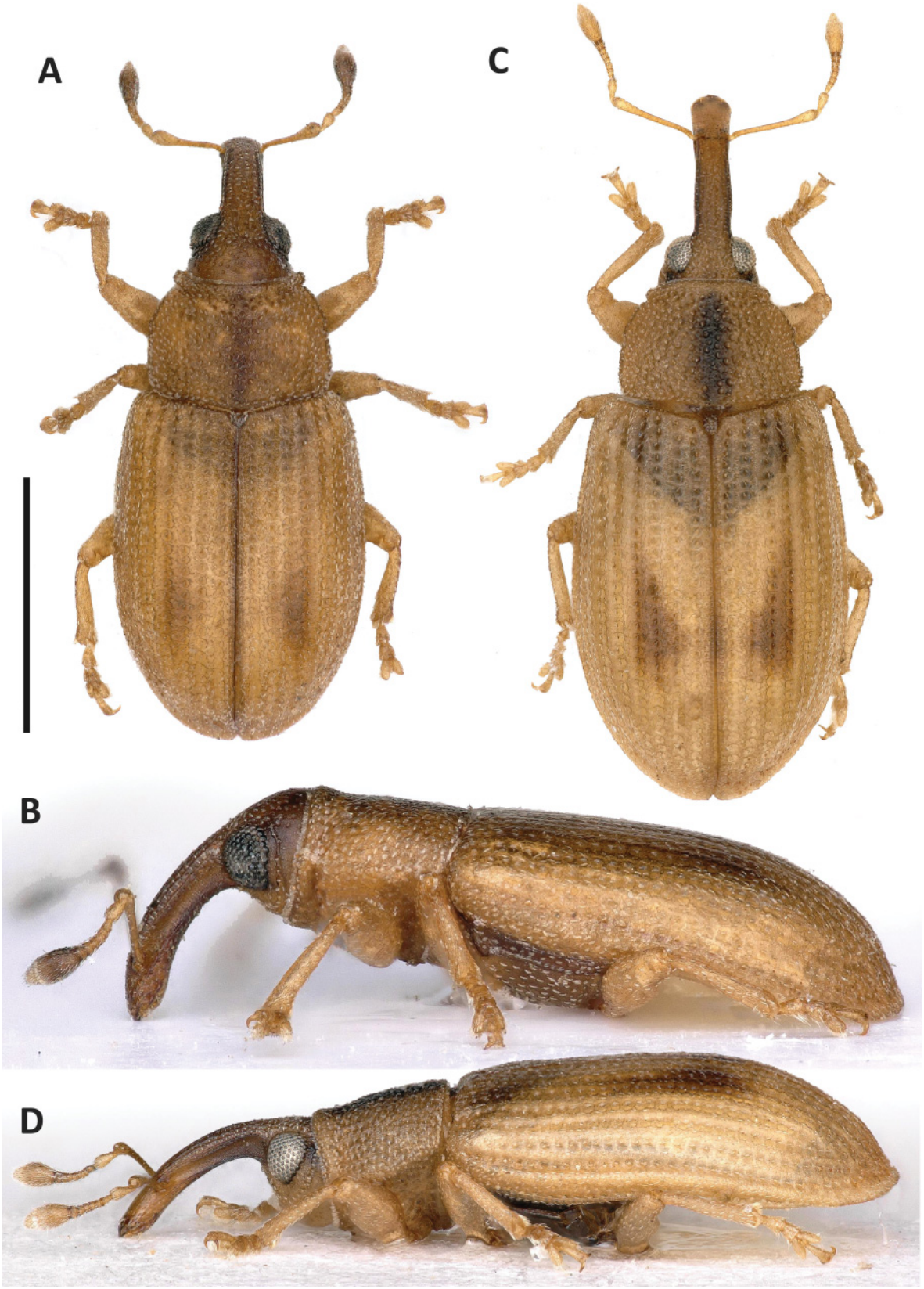

Fig. 29. Habitus of *Derelomus crypticus* Haran sp. nov. **A–B**. Holotype, ♂ (Kenya) (NHMUK). **C–D**. Paratype, ♀ (Republic of South Africa) (JHAR03078-03, CBGP). **A, C**. Habitus in dorsal view. **B, D**. Habitus in lateral view. Scale bar: A, C = 1 mm; B–D not to scale.

Life history

This species was collected on male inflorescences of *Phoenix reclinata*, which probably constitutes the substrate for the larvae. Adults were collected in May and November.

Distribution

In our current knowledge only known from Kenya, and the Western Cape Province of the Republic of South Africa. The population from Western Cape Province is likely an introduction since no palm is indigenous to this area.

Remarks

This species is known from very few specimens, it is seemingly rare compared to the other species found on male inflorescences of *Phoenix reclinata*. The elytral pattern and measurements are probably more variable than those provided in the description. The male from Kenya and the female from the Republic of South Africa are quite divergent regarding the shape of their rostrum, beyond what is expected for sexual dimorphism. Populations from these two areas are probably morphologically slightly divergent, similarly to what is observed in other species showing such distribution patterns. The penis and stridulatory plate of the only male available was unfortunately damaged during dissection and could not be used for the description.

Derelomus costiger Marshall, 1958
Fig. 30

Derelomus costiger Marshall, 1958: 741.
Psilocaulus elatus Richard, 1958: 50. **Syn. nov.**

Derelomus costiger – Haran *et al*. 2022a (phylogenetic relationships, life history); 2023a (life history).

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the combination of rostrum comparatively moderately long and downcurved (Fig. 30C–D), only 3.5 × as long as wide in dorsal view in males (Fig. 30A) and by the males lacking patterns of elytra and internal comb of elongate setae on protibiae. *Derelomus costiger* is similar to *D. discus*, but in the latter species males have a longer rostrum (4.75 × as long as wide) and bears combs of setae on protibiae (Fig. 31D). It is also close to *D. ephippiger*, but the latter species exhibit a distinct dark pattern at the base of elytra (Fig. 32A). The body of penis and the stridulatory plate are diagnostic for these species. GenBank accession numbers for the corresponding DNA barcodes: ON553421–22–23/PV698475–76.

Material examined

Lectotype of *Derelomus costiger* Marshall, 1958 (here designated)
REPUBLIC OF SOUTH AFRICA • ♂; "Holotype [red label]" "South Africa; Stellenbosch [Western Cape Province, 33°55′55.2″ S 18°52′30.0″ E]; 9.4.1957; J. G. Theron" "*Derelomus*; *costiger*. Mshl; Type ♂" "LECTOTYPE ♂; *Derelomus*; *costiger*; Marshall, 1958; Haran des. 2025"; NHMUK.

Holotype of *Psilocaulus elatus* Richard, 1958
Comoro Islands • ♂; "Moheli; Fomboni[12°17′06.5″ S 43°44′38.9″ E]; XI.55-A.R" "Institut; Scientifique; Madagascar" "TYPE[red label]" "*Psilocaulus*; *elatus* n; type; Det. R. Richard" "*Derelomus*; *costiger* Mshl; Haran det. 2024"; MNHN.

Paralectotypes

REPUBLIC OF SOUTH AFRICA – **Western Cape** Province • 1 ♂; Stellenbosch; 33°56′20.4″ S, 18°52′08.4″ E; 9 Apr. 1957; J. G. Theron coll.; CIE. n° 15595; NHMUK • 3 ♂♂; same data as for preceding; SAMC.

Other material

ANGOLA • 1 ♂; no precise locality; 7 Jun. 1928; NHMUK • 1 ♂, 1 ♀; Huila district; 14°47′53.2″ S, 14°54′10.8″ E; Mus. Murray; NHMUK.

IVORY COAST • 1 ♂; Toumodi; 6°33′21.6″ N, 5°01′42.0″ W; 5 Oct 1963; R. Vuattoux coll.; flower of *Phoenix* sp.; MNHN.

KENYA • 2 ♂♂, 2 ♀♀; Makindu; 2°16′37.2″ S, 37°49′08.4″ E; May 1937; Mac Arthur coll.; NHMUK.

MOZAMBIQUE • 1 ♀; Maputo Special Reserve, west gate; 26°30′14.4″ S, 32°43′05.0″ E; 21–30 Nov. 2016; Aristophanous M, Cristovae J Laszio G and Miles W coll.; light trap; NHMUK.

REPUBLIC OF SOUTH AFRICA – **Western Cape Province** • 1 ♂, 1 ♀, 8 specs (preserved in ethanol); Stellenbosch, J. Marais Nature reserve; 33°55′55.2″ S, 18°52′30.0″ E; 18 Jul. 2018; J. Haran coll.; on flowers of *Buddleja auriculata* (Buddlejaceae); JHAR01181; CBGP • 1 ♀, 11 specs (preserved in ethanol); same data as for preceding; JHAR01182; CBGP • 1 ♂, 1 ♀; Pringle Bay; 34°21′00.0″ S, 18°49′48.0″ E; 28 Nov. 2019; J. Haran coll.; on male inflorescence of *Phoenix reclinata*; JHAR03078-01/04; CBGP. – **Eastern Cape Province** • 1 ♂, 2 ♀♀; Kentani; 32°30′29.8″ S, 28°19′37.2″ E; H.P. Abernethy coll.; SAM-COL-A050313; SAMC • 1 ♂, 3 ♀♀; Mbotyi, 31°27′10.8″ S, 29°44′49.2″ E; Dec. 2009; Ş. Procheş coll.; on male and female inflorescences of *Phoenix sp.*; JHAR07434; CBGP. – **Gauteng Province** • 1 ♂, 1 ♀; Pretoria; 25°46′23.2″ S, 28°12′32.4″ E; 22 Jun. 1990; S. Neser coll.; in flowers of *Phoenix reclinata*, SANC. – **KwaZulu-Natal Province** • 4 ♂♂, 1 ♀, 30 specs (preserved in ethanol); St Lucia; 28°22′59.8″ S, 32°24′33.4″ E; 5 Jan. 2019; J. Haran coll.; male inflorescence of *Phoenix reclinata*; JHAR02041-0½042/2044; CBGP • 1 ♂, 1 ♀, 7 specs (preserved in ethanol); iSimangaliso Wetland Park, Ozabeni, 3km SSW Sodwana Camp; 27°38′10.8″ S, 32°34′55.2″ E; 22 Oct. 2014; E Grobbelaar coll.; SANC-MCOL-0374/JHAR02335; SANC. – **Limpopo Province** • 1 ♂; Mmabolela Estate; 22°37′52″ S, 28°16′34″ E; 20–24 Nov. 1994; F. Genier coll.; savana light trap; CMNC.

REUNION ISLAND (FRANCE) • 1 ♂, 3 ♀♀; Sainte Marie; 20°53′53.2″ S, 55°32′56.4″ E; Feb. 2022; C. Lemagnen coll.; UV light trap in a garden; JHAR07813; EL.

SENEGAL • 6 ♂♂, 30 ♀♀; Kayar; 14°54′57.6″ N, 17°07′08.4″ W; 8 Apr. 1951; Villiers coll.; in flowers of *Phoenix dactylifera*; MNHN • 3 ♂♂; same collection data as for preceding; NHMUK.

UNITED STATES OF AMERICA • 1 ♂; Florida, Dade County Kendall, Old Cutler Road; 25°37′55.0″ N, 80°18′39.9″ W; 25 Jul.–1 Aug. 2016; S. Haltbert coll.; air suction trap; CMNC • 1 ♀; Florida, Palm Beach County, Delary Beach; 26°25′56.8″ N, 80°05′52.2″ W; 4 Jul. 2020; V. Golia coll.; porch light; CMNC • 1 ♂; Florida, Palm Beach County, Delary Beach; 26°25′56.8″ N, 80°05′52.2″ W; 9 Nov. 2020; V. Golia coll.; porch light; CMNC.

ZIMBABWE • 1 ♂; Victoria Falls; 17°56′42.0″ S, 25°50′21.6″ E; Aug. 1929; G.A.K. Marshall coll.; NHMUK.

Redescription (♂)

Measurements. Body length 2.5–2.8 mm.

Color. Body integument uniformly pale brown or with apical ⅔ of rostrum, club and post ocular area dark brown, some specimens with median line of pronotum darker than rest of integument; dorsum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum as long as pronotum in lateral view, slightly and regularly downcurved; in dorsal view about 3.5 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted at apical ⅕ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, as long as segments 2–3 together, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.50–1.66), widest near base, a little narrower there than elytra at humeral angles (0.82 ×), side rounded, converging apicad, forming notch and blunt tooth near middle of length; apical constriction distinct, about as deep as width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, wider or narrower than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. A little longer than wide (W : L ratio: 0.84–0.92); sides strongly convex, widest near basal ⅖ of length; humeri not distinct from the lateral curvature of elytra; apex rounded, notched or jointed at level of suture; striae with punctures about ⅓ to ¼ as wide as width of interstriae; interstriae flat, 5 slightly raised on basal ⅗ of length; scutellar shield rounded, generally slightly darker than elytra, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 7–8 granules about ⅔ × as long as median line from base, space between granules 1–2 × as wide as diameter of a granule. Central sclerotized area slightly longer than wide, truncate at base (Fig. 30F).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, short, not contrasting with the setae of the rest of tibiae; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.23), about 1.5 × as long as apodemes; sides slightly convex in dorsal view, widening regularly from base to apical ⅓, from there narrowing apicad, apex rounded; in lateral view curvature moderate but stronger in basal ½ of length, width narrowing regularly from basal ½ of length to apex, apex bisinuate (Fig. 30E).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer (1.15 × as long as pronotum in lateral view) and narrower (Fig. 30D). The antennae are inserted at apical ⅓ of rostrum in lateral view (¼ in males). Elytra of females are also more elongate (W : L ratio: 0.70) than in males (Fig. 30B).

Variation

This species varies in color geographically. Populations from the Republic of South Africa have the rostrum, the post-ocular area and the club dark brown while those from west Africa (Ivory Coast and Senegal) are uniformly pale brown. These variations are not associated with divergent external and internal morphology in specimens examined.

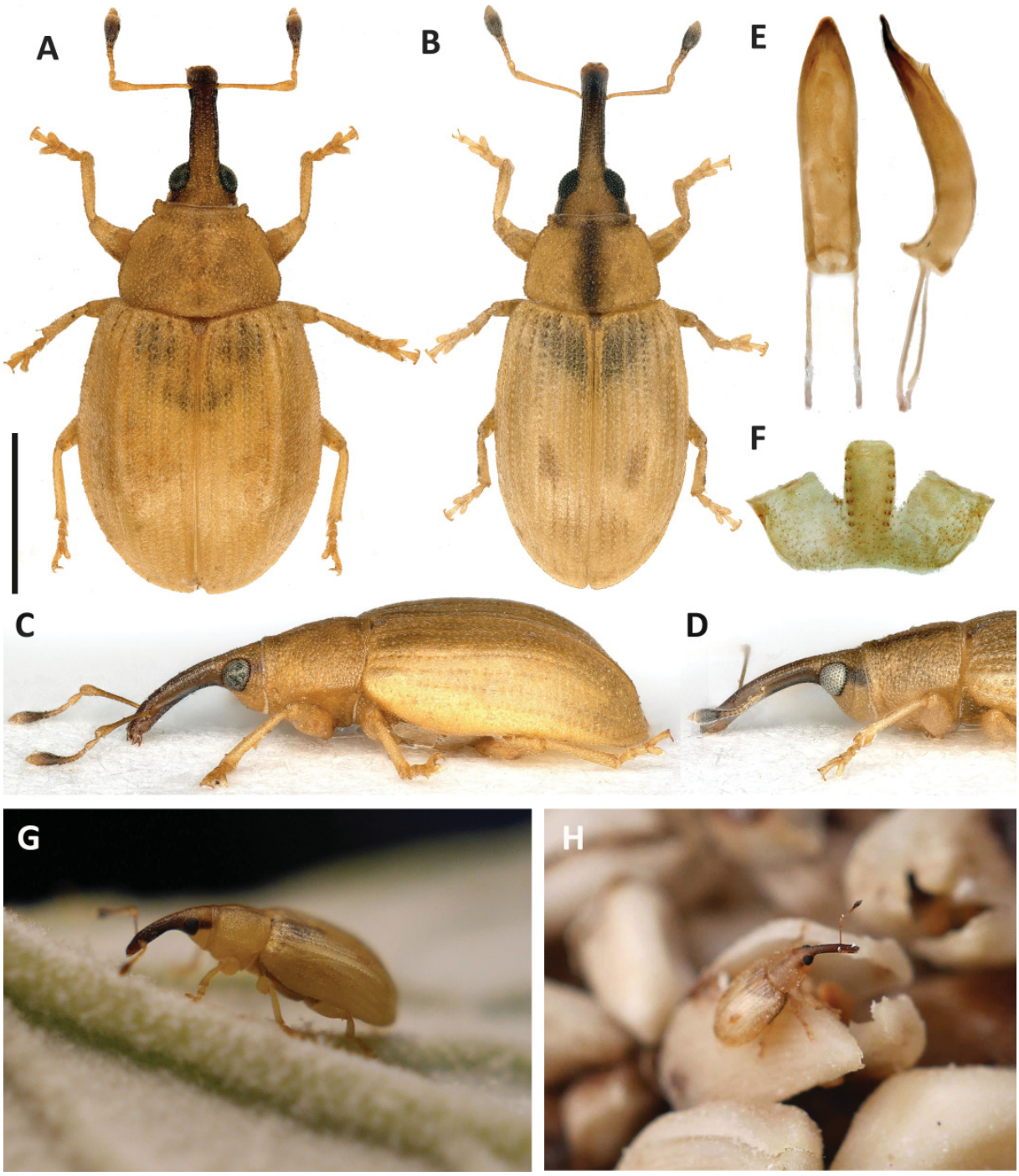

Fig. 30. Habitus and life history of *Derelomus costiger* Marshall, 1958. **A, C, E–F**. Paralectotype, ♂ (Republic of South Africa) (SAMC). **B, D**. ♀ (Republic of South Africa) (JHAR01182-02, CBGP). **A–B**. Habitus in dorsal view. **C–D**. Habitus in lateral view. **E**. Penis in dorsal (left) and lateral (right) views. **F**. Stridulatory plate. **G–H**. Adults in natura on inflorescence of *Phoenix reclinata* Jacq. in the Republic of South Africa. Scale bar: A–D = 1 mm; E–H not to scale.

Life history

Adults of this species were collected in various sites on male inflorescences of *Phoenix reclinata* (Arecaceae), which probably constitutes the substrate for the larvae (Fig. 30H). It has been sporadically collected on flowers of *Buddleja auriculata* Benth. (Scrophulariaceae). Adults are attracted by UV lights. This species is the most abundant among those found on male flowers of *P. reclinata*, at least in the Republic of South Africa. Adults were collected all year round.

Distribution

In our current knowledge, this species is known from Angola, Comoros and La Reunion Islands, Ivory Coast, Kenya, Mozambique, the Republic of South Africa, Senegal, USA (Florida) and Zimbabwe, but its host is widely distributed in eastern and western Africa, and it is likely that this species is more widespread. In La Reunion Island, this species has only been collected since 2010, suggesting a rather recent introduction on this island (E. Lemagnen pers. com.). This species has also been introduced to North America in recent years.

Remarks

Derelomus costiger was described based on a series of 6 male and 3 female specimens without designation of a holotype (Marshall 1958). In the collection housed at NHMUK, the type series from Stellenbosch was located. A male of this series bearing a red type label is designated as the lectotype for *Derelomus costiger* Marshall, 1958 [here designated] and was relabelled accordingly. The rest of the series was labelled as paralectotypes. *Psilocaulus elatus* Richard, 1958 is a derelomine weevil described from Comoros Islands a few months after Marshall's description of *D. costiger*. The examination of the holotype of this species revealed no difference with the lectotype and paralectotypes of *D. costiger*. As a result, the species name *Psilocaulus elatus* Richard, 1958 is proposed as a junior synonym of *Derelomus costiger* Marshall, 1958 [new synonymy].

Derelomus discus Haran sp. nov.
urn:lsid:zoobank.org:act:709DB3EC-E923-453D-BD88-C1C31004CF04
Fig. 31

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the uniformly pale brown pronotum and elytra in the males, their shape almost forming a disc, and the comb of erect setae on the protibiae (Fig. 31D). It is closest to *D. ephippiger* and *D. costiger*, but the rostrum is longer than in those two species which also lack a comb on the protibiae in the males. The body of the penis and the stridulatory plate are diagnostic in all these species. Females are unknown.

Etymology

This species is named in reference to the very wide elytra in male, almost forming a disc with the pronotum.

Material examined

Holotype

REPUBLIC OF SOUTH AFRICA – **Limpopo Province** • ♂; "SOUTH AFRICA, Venda; Nwanedi Waterfall; 22.38S 30.24E [22°37′34.8″ S 30°24′21.6″ E]; 8.ii.1994 R. Oberprieler" "collected from; *Phoenix reclinata*; (ARECACEAE)" "National coll.; of insects; Pretoria, S. Afr" "Holotype ♂; *Derelomus discus*; Haran, 2025"; SANC.

Paratype

REPUBLIC OF SOUTH AFRICA – **Limpopo Province** • 1 ♂; Hans Merensky Nature Reserve; 23°41′42.0″ S, 30°40′04.8″ E; 23–25 Jan. 1987; R. Oberprieler coll.; collected on leaves of *Phoenix reclinata*; ANIC.

Description (♂)

Measurements. Body length 3.2 – 3.3 mm.

Color. Body integument uniformly pale brown, apical ¾ of rostrum and club dark brown, post ocular area slightly darker than rest of head capsule; dorsum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum a little longer than pronotum in lateral view (1.1 ×), regularly downcurved; in dorsal view about 4.75 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted at apical ⅕ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2.5 × as long as wide, as long as segments 2–3 together, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.85), widest near base, a little narrower there than elytra at humeral angles (0.85 ×), side rounded, converging apicad, forming deep notch near middle of length; apical constriction distinct, about as deep as width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, wider or narrower than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. A little longer than wide (W : L ratio: 0.92); sides strongly convex, widest near basal ¼ of length; humeri not distinct from lateral curvature of elytra; apex rounded, jointed at level of suture; striae with punctures about ½ to ⅓ as wide as width of interstriae; interstriae flat, 5 slightly raised on basal ⅗ of length; scutellar shield rounded, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 11–12 granules about as long as median line from base, space between granules 1–2 × as wide as diameter of a granule. Central sclerotized area slightly longer than wide, rounded at base (Fig. 31E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, with a comb of erect setae on apical ½ of length, setae longer than a claw (Fig. 31D); claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.33), about as long as apodemes; sides subparallel in basal ⅔, converging apicad in apical ⅓ in dorsal view, apex rounded; in lateral view curvature moderate, stronger in basal ⅓ of length, width narrowing regularly from apical ¼ of length to apex, apex downcurved (Fig. 31C).

Life history

Adults were collected on *Phoenix reclinata* (Arecaceae) in January and February.

Distribution

This species is known from two male specimens from the Limpopo Province in the Republic of South Africa. Its putative host, *P. reclinata* is widely distributed in Africa.

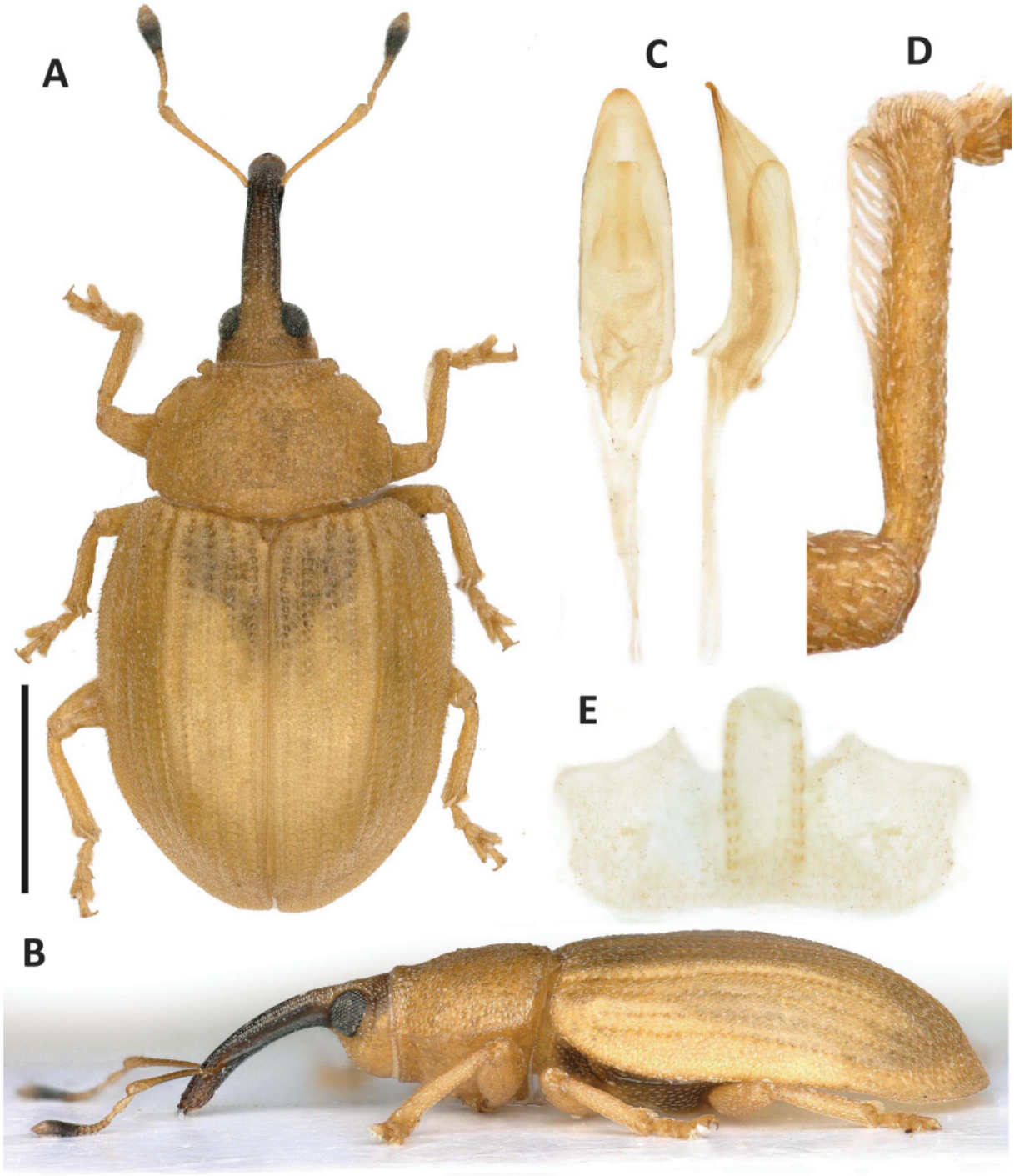

Fig. 31. Habitus of *Derelomus discus* Haran sp. nov., holotype, ♂ (Republic of South Africa) (SANC). **A**. Habitus in dorsal view. **B**. Habitus in lateral view. **C**. Penis in dorsal (left) and lateral (right) views. **D**. Protibia with internal comb of erect setae. **E**. Stridulatory plate. Scale bar: A–B = 1 mm; C–E not to scale.

Derelomus ephippiger Gyllenhal, 1836
Fig. 32

Derelomus ephippiger Gyllenhal, 1836: 629.

Derelomus auberti Hustache, 1932: 68. **Syn. nov.**

Diagnosis

In the *D. ephippiger* group, this species can be distinguished by the combination of a square dark spot at the base of the elytra between interstriae 1–4, the club similar in color to the funicle and the rostrum at most as long as the pronotum in lateral view (Fig. 32B–C). It is closest to *D. discus* sp. nov. and *D. costiger*, but in the latter species, the integument of the elytra is uniformly pale brown in males and the rostrum has a distinct size and curvature (Figs 30C, 31B). The body of the penis and the stridulatory plate are diagnostic in all these species.

Material examined

Lectotypes

COUNTRY(?) • ♂; "Typus [red label]" "♂" "Barbaria ? [Northern coast of Africa, from Morocco to Lybia, see discussion in the Remarks section]; Quensel [Conrad Quensel, Swedish entomologist]" "NHRS-JLKB000073801" "Lectotype♂; *Derelomus*; *ephippiger*; Gyllenhal, 1836; Des. Haran, 2025"; NHRS.

GABON • ♀; "Museum Paris; Gabon; Collection Léon Fairmaire; 1906" "Lectotype; *Derelomus*; *auberti*; Hust. 1932; Haran des. 2025" "*Derelomus*; *ephippiger*; Gyllenhal, 1836; Haran det. 2025"; MNHN.

Paralectotypes

COUNTRY (?) • 1 ♂, 1 ♀; data as for lectotype; NHRS.

GABON • 1 ♀; same collection data as for lectotype of *D. auberti*; MNHN.

Other material

NIGERIA • 1 ♂; Jos; 9°54′00.0″ N, 8°51′10.8″ E; 13 Oct. 1955; J. Bechyně coll.; expedition Museum G. Frey Nigeria-Cameroon; NHRS.

SENEGAL • 1 ♀; Kayar; 14°54′57.6″ N, 17°07′08.4″ W; 8 Apr. 1951; Villiers coll.; MNHN • 1 ♂,1 ♀; same collection data as for preceding; NHMUK.

Redescription (♂)

Measurements. Body length 2.8–3.0 mm.

Color. Body integument pale brown, pronotum and head usually slightly darker than the rest of body, basal ⅗ of interstriae 1–4 dark brown, forming dark rectangle contrasting with rest of elytra; dorsum with minute recumbent whitish setae, glabrous in appearance.

Head. Rostrum as long as pronotum in lateral view, slightly and regularly downcurved; in dorsal view about 3 × as long as wide, integument densely punctate, forming 5 longitudinal carinae; antennae inserted near apical ¼ of length in lateral view; head capsule densely punctate in dorsal view, forehead flat; eyes convex, exceeding lateral curve of head capsule in dorsal view; antennal funicle with first segment 2 × as long as wide, as long as segments 2–3 together, 3–7 transverse.

Pronotum. Wider than long (W : L ratio: 1.52), widest near base, a little narrower there than elytra at humeral angles (0.85 ×), side slightly rounded, converging apicad, forming notch and blunt tooth near middle of length; apical constriction distinct, about as deep as width of scape in middle of length; integument with punctures rounded, space between punctures rough, shiny, micropunctate, wider or narrower than diameter of punctures in middle, narrower laterally.

Metathorax. Metanepisterna with recumbent white setae, non-contiguous.

Elytra. A little longer than wide (W : L ratio: 0.92); sides convex, widest near middle of length; humeri raised; apex rounded, notched or jointed at level of suture; striae with punctures about ¼ as wide as width of interstriae; interstriae flat, 5 raised into carina; scutellar shield rounded, concolorous, coated with small recumbent scales not concealing integument.

Abdomen. Underside uniformly pale brown, with minute recumbent whitish setae, not contiguous. Stridulatory plate with lines of 4 granules about ⅖ × as long as median line from base, space between granules 1–2 × as wide as diameter of a granule. Central sclerotized area short, wider than long, rounded at base (Fig. 32E).

Legs. Profemora moderately thickened near middle of length; protibiae with external margin straight, internal bisinuate, setae on apical half of internal margin recumbent, short, not contrasting with setae of rest of tibiae; claws simple.

Terminalia. Body of penis elongate (W : L ratio: 0.28), slightly longer than apodemes; sides subparallel, in dorsal view, narrowing apicad in apical 1/6, apex truncate; in lateral view curvature moderate but stronger in basal ½ of length, width widening regularly from base to apical ⅓, then narrowing apicad, apex curved upward (Fig. 32D).

Sexual dimorphism

Females can be distinguished from males by the rostrum which is slightly longer and more downcurved in lateral view (Fig. 32C). The antennae are inserted at the apical ⅖ of the rostrum in lateral view (¼ in males). Males have costate 5th elytral interstriae (all interstriae flat in females).

Life history

No information on host plants is available for this species, adults were collected in April (Senegal) and October (Nigeria).

Distribution

Gabon, Nigeria, Senegal. The reports from northern and southern Africa are doubtful, see Remarks section just below.

Remarks

In Schoenherr's collection housed at NHRS, 2 male and 1 female specimens bearing a red type label and pinned in the box under the label "*ephippiger* Gyll" in the genus *Derelomus* were located. These specimens agree with the description given by Gyllenhal: "*Elytra* (…) *plaga lata, communi, brunnea, a basi paulo ultra medium extensa, ornata* [elytra bearing a large brown band from base to beyond middle of length]", and no other specimen can be related to this peculiar feature in the box. As a result, one of the males of this series is designated as the lectotype for the species name *Derelomus ephippiger* Gyllenhal, 1836 [here designated] and was relabelled accordingly. The other two specimens were labelled as paralectotypes. There has been a confusion on the type locality of the specimens used to describe this species: the original description states that the specimens are from the *Cap. Bonae Spei.* [Cape of Good

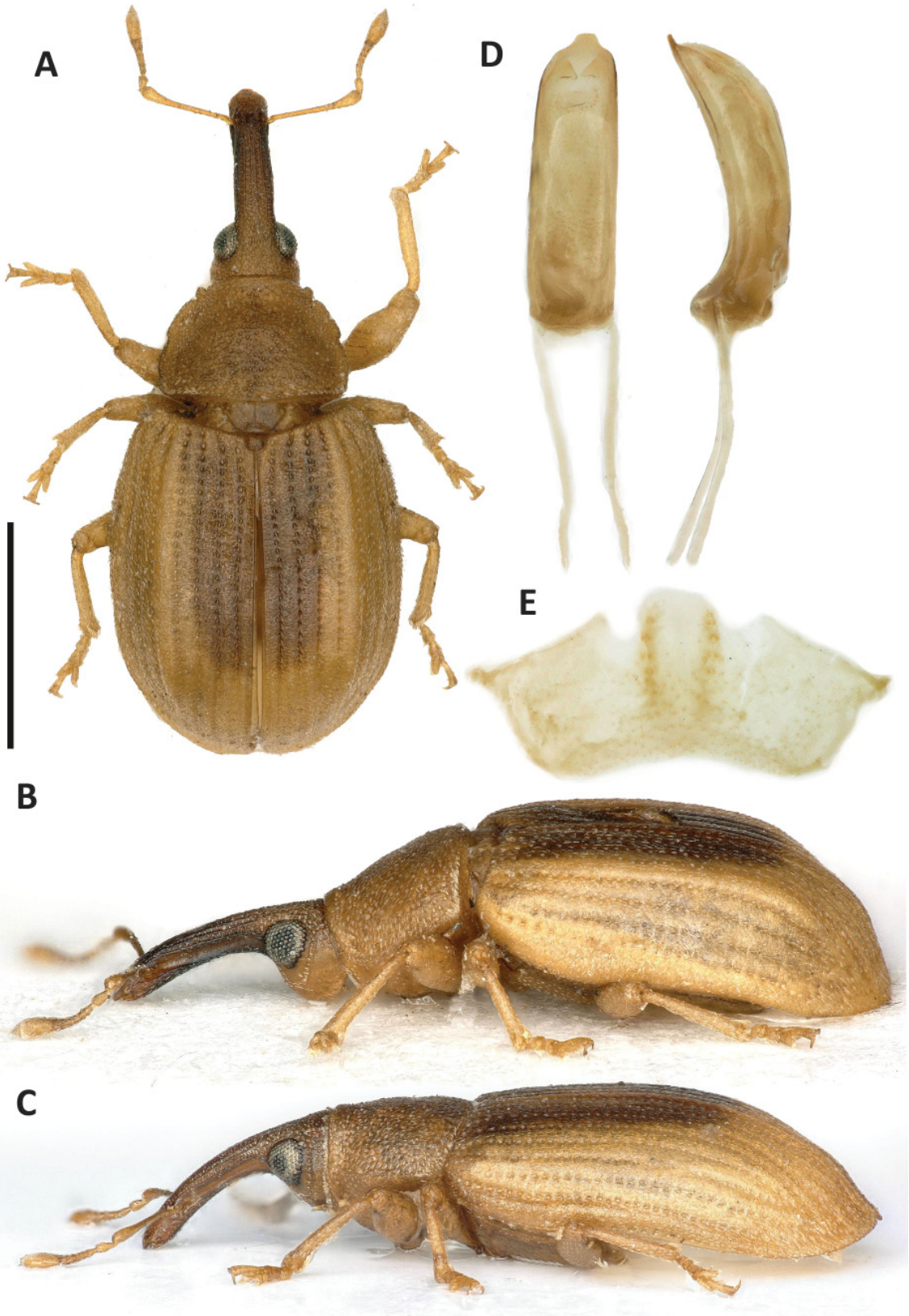

Fig. 32. Habitus of *Derelomus ephippiger* Gyllenhal, 1836. **A–B, D–E**. Holotype, ♂ (NHRS). **C**. Paralectotype, ♀ (Gabon) (MNHN). **A**. Habitus in dorsal view. **B–C**. Habitus in lateral view. **D**. Penis in dorsal (left) and lateral (right) views. **E**. Stridulatory plate. Scale bar: A–C = 1 mm; D–E not to scale.

Hope, South Africa] and were provided by C. Quensel, but the labels under each specimen bear the locality "Barbaria ? Quensel" an ancient term for the northern coast of Africa, extending from Morocco to Libya. Quensel never travelled to the Republic of South Africa and no specimens related to this species were ever collected in this country, suggesting that the type locality reported in the original description is erroneous. Moreover, this species appears absent from North Africa as well. The type locality for this species is thus left as uncertain. In our current knowledge, this species appears restricted to tropical Africa, from Senegal to Gabon. In the collection housed at MNHN, two female specimens labelled "Gabon" and corresponding in all aspect to the description of Hustache for *Derelomus auberti* were located. One of the specimens was designated as the lectotype for *Derelomus auberti* [here designated] and was labelled accordingly. The second specimen was labelled as a paralectotype. The rest of the series reported in the original description (ca 10 specimens) could not be located. The comparison between these lectotypes with the female lectotypes of *D. ephippiger* revealed no difference. As a result, the species name *Derelomus auberti* Hustache, 1932 is proposed as a junior synonym of *Derelomus ephippiger* Gyllenhal, 1836 [new synonymy].

Key to species of Derelomus Schoenherr, 1825

1. Lateral carina of pronotum glabrous or with minute setae not concealing the integument (Fig. 1B). Forehead glabrous or with scattered setae (Fig. 1B). Rostrum variable in size, as long as or distinctly longer than pronotum in lateral view in males 9
– Lateral carina of pronotum concealed with whitish scales, or with a band of scales contrasting with the vestiture of the rest of pronotum (Fig. 1C). Forehead generally with two tufts of white scales near eyes (Fig. 2A). Rostrum comparatively short, generally as long as or slightly longer than pronotum in males in lateral view. On Fabaceae 2

2. Elytra with two transverse stripes or lines of dark spots on each elytron (Figs 2A, 3A, 4A) 3
– Elytra with one or no transverse band or line of dark spots on each elytron (Figs 5A, 8A). Some rare specimens of *D. abyssinicus* exhibit two bands on elytra, in that case the rostrum is almost straight in lateral view in both sexes (Fig. 4B–C) 5

3. Pronotum with white scales on dorsum (Fig. 2A). Claws appendiculate internally (Fig. 1F). On *Vachellia* spp. ..... ***D. signatus*** Gyllenhal, 1836
– Pronotum with minute whitish setae, glabrous in appearance (Figs 3A, 4A). Claws simple (Fig. 1F) 4

4. Rostrum as long as pronotum in lateral view (Fig. 3B–C). Pronotum distinctly transverse (W : L ratio: 1.33). Apex of elytra jointly rounded. Body of penis moderately elongate (W : L ratio: 0.37, Fig. 3D); apodemes long, 0.8 × as long as body of penis. On *Vachellia karroo* ..***D. karooensis*** Haran sp. nov.
– Rostrum slightly longer than pronotum in lateral view (Fig. 4B–C). Pronotum isodiametric (W : L ratio: 1). Apex of elytra acuminate. Body of penis elongate (W : L ratio: 0.13); apodemes very short (Fig. 4D). On *Vachellia xanthophloea* ..... ***D. acuminatus*** Haran sp. nov.

5. Rostrum regularly and moderately downcurved in lateral view (Fig. 5B–C). Claws simple (Fig. 1F). On *Vachellia* spp. ..... ***D. abyssinicus*** Hustache, 1936
– Rostrum in lateral view distinctly downcurved, more so near base (Figs 6B–C, 7B–C, 8B–C). Claws appendiculate (Fig. 1F) 6

6. Apex of body of penis rounded, not forming a long spatula (Figs 6D, 7D). Median area of stridulatory plate rounded at apex, with series of 4 granules (Figs 6E, 7E) 7
– Apex of body of penis expanded, forming a long spatula (Figs 8D, 9D). Median area of stridulatory plate more acute at apex, with series of 5–6 granules (Figs 6E, 7E) 8

7. Elytra with a transverse dark line, sometimes reduced to a series of dots on even interstriae (Fig. 6A–C). Pronotum darker along medial line. Club darker than funicle in male (Fig. 6A). Southern and Eastern Africa ..... ***D. caldarai*** Haran sp. nov.
– Body integument uniformly pale brown, some individuals with a dark spot beyond middle of length of interstriae 4 of elytra (Fig. 7A). Pronotum uniformly pale brown. Club and funicle concolorous (Fig. 7A). Cape Verde Archipelago, Cameroon and Senegal. On *Vachellia*..... ..... ***D. lindbergi*** Roudier, 1957

8. Body integument uniformly pale brown, elytra in some specimens with a dark spot beyond middle of length of interstriae 4 (Fig. 8A). Apex of penis body forming a spatula 2 × as long as wide, moderately bisinuate in lateral view (Fig. 8D). On *Vachellia nilotica* .... ***D. pericarti*** Hoffmann, 1968
– Body integument pale brown, elytra with a line of dark spots beyond middle of length of interstriae 2, 4, 6 (Fig. 9A). Apex of penis body forming a spatula 4 × as long as wide, bisinuate in lateral view (Fig. 9D). On *Vachellia* ..... ***D. schoedli*** Rheinheimer, 2005

9. Body integument uniformly pale brown (Figs 10A, 11A). Smaller species, body length equal or below 2.5 mm. Males with smooth elytra. On Ebenaceae and Achariaceae 10
– Body with dark pattern on dorsum or with body length larger than 2.5 mm. In some species males with costate elytra (Fig. 25A). On Arecaceae, Anacardiaceae & Strelitziaceae 12

10. Rostrum elongate, at least 5 × as long as wide in dorsal view, distinctly longer than pronotum in lateral view (Fig. 11C–D). Metanepisterna with a dense vestiture of white scales (Fig. 11F). Claws appendiculate (Fig. 1F). Line of granules on stridulatory plate with spaces larger than width of a granule (Fig. 11D, H). On Achariaceae 11
– Rostrum short, at most 4 × as long as wide in dorsal view, as long as pronotum in lateral view (Fig. 10B). Metanepisterna with few non-overlapping white scales (Fig. 10B). Claws simple (Fig. 1F). Line of granules on stridulatory plate with spaces as wide as or narrower than width of a granule (Fig. 10E). On Ebenaceae ..... ***D. pallidus*** Fåhraeus, 1844

11. Interstriae with erect setae as long as width of interstriae (Fig. 11A). Body of penis with sides converging regularly apicad in dorsal view (Fig. 11C) ..... ***D. setifer*** Haran sp. nov.
– Interstriae with minute recumbent setae, shorter than width of interstriae (Fig. 11E). Body of penis with sides concave in middle of length in dorsal view (Fig. 11G). On *Kiggelaria africana* ..... ***D. prochesi*** Haran sp. nov.

12. Integument of prosternum black, dark brown, or at least with contrasting dark patterns laterally (Figs 12B, 14B, 17B). Pronotum moderately transverse, W : L ratio at most 1.30 13
– Integument of prosternum uniformly pale brown (Figs 19B, 21B). Some specimens in *D. chamaeropis* have a dark prosternum (Fig. 24D), in this case, the elytra are uniformly brown (Fig. 24C). In most species pronotum distinctly transverse, W : L ratio at least 1.36 (1.23 in *D. fasciatus*) 18

13. Scutellar shield bearing a dense cover of whitish scales, concealing the integument (Fig. 12A). Endemic to South Africa, on *Strelitzia nicolai* (Strelitziaceae) ..... ***D. strelitziae*** Haran sp. nov.
– Scutellar shield glabrous or with a few setiform scales, not concealing the integument (Fig. 13A). Most species on *Phoenix reclinata* 14

14. Body integument uniformly black, shiny, antennal scape and tarsi dark brown or reddish (Fig. 16A). On *Phoenix reclinata* ..... ***D. ater*** Marshall, 1950
– Body integument brown (Fig. 15A) sometimes with pale patterns (Fig. 17A) or pale brown with dark patterns on dorsum (Figs 13A, 14A) 15

15. Dorsal face of pronotum and elytra very flat in lateral view (Fig. 13B–C). Apical constriction of pronotum very deep in dorsal view (Fig. 13A). Stridulatory plate with granules closely aligned; line of granules shorter than half the length of stridulatory plate (Fig. 13E). On *Phoenix reclinata* ..... ***D. strangulatus*** Haran sp. nov.
– Pronotum and elytra convex dorsally in lateral view (Figs 14B, 15B). Apical constriction of pronotum shallow or absent in dorsal view (Figs 14A, 15A). Stridulatory plate with granules distantly aligned or line of granules longer than half the length of stridulatory plate (Figs 14F, 15F) 16

16. Integument of prosternum uniformly dark brown (Figs 15B, 17B) 17
– Integument of prosternum pale brown with dark patterns laterally (Fig. 14B). On *Phoenix reclinata* ..... ***D. zonatus*** Marshall, 1950

17. Sides of pronotum very convex in dorsal view, apical margin about 0.5 × as wide as width of pronotum near middle of length (Fig. 15A). Scutellar shield darker than elytra. Eyes very convex in dorsal view, exceeding distinctly the lateral curve of the head capsule. On *Phoenix reclinata* ..... ***D. brunneus*** Haran sp. nov.
– Sides of pronotum moderately convex in dorsal view, apical margin about 0.75 × as wide as width of pronotum near middle of length (Fig. 17A). Scutellar shield pale brown, concolorous with pale patterns on elytra. Eyes moderately convex in dorsal view, exceeding slightly the lateral curve of the head capsule ..... ***D. nigrovariegatus*** Hustache, 1936

18. Head black, contrasting strongly with color of body integument (Fig. 18A). Pronotum with a contrasting dark spot near the scutellar shield ..... ***D. trinotatus*** Haran sp. nov.
– Head concolorous or slightly darker than body, not contrasting strongly with color of the rest of body (Figs 19A, 20A). Pronotum uniformly pale brown, or with a dark median line, not forming a dark spot near the scutellar shield (Figs 20A, 28A) 19

19. Rostrum very long and almost straight in lateral view, in males at least 1.3 × as long as pronotum (Figs 19B, 20B). Body of penis long and narrow, W : L ratio at most 0.23 (Figs 19D, 20D). Stridulatory plate with granules indistinct or with space between granules wider than diameter of a granule (Figs 19E, 20E). Head capsule lacking a distinct postocular dark strip (Fig. 19B) 20
– Rostrum comparatively short and more downcurved, at most 1.28 × as long as pronotum in lateral view in males (Figs 21B, 22B). Body of penis moderately elongate, W : L ratio at least 0.25 (Fig. 21D), except for *D. antonioui*: (0.18; Fig. 22D). Stridulatory plate generally with compact and distinct lines of granules (Fig. 24F). Head capsule generally with a more or less contrasting postocular dark strip (Fig. 30D) 21

20. Smaller species, body size < 2.5 mm (Fig. 19A). Pronotum isodiametric. Elytra generally at least with a transverse dark strip beyond middle of length. Stridulatory plate with lines of 4–5 granules (Fig. 19E). Sides of body of penis converging apicad, apex truncate (Fig. 19D). On *Searsia glauca* ..... ***D. fasciatus*** Hartmann, 1904
– Larger species, body size > 3 mm (Fig. 20A). Pronotum transverse. Elytra generally uniformly pale brown or with dark shades laterally and at apex (Fig. 20B). Stridulatory plate lacking distinct lines of granules (Fig. 20E). Sides of body of penis widening apicad, apex forming a spatula (Fig. 20D). On *Phoenix reclinata* ..... ***D. languidus*** Fåhraeus, 1844

21. Elytra shorter, at most 2.4 × as long as pronotum (Fig. 21A). Dark patterns on elytra forming two transverse strips, one at base between interstriae 1–7 and one slightly after middle of length, the latter sometimes reduced to a small spot on each elytron (Fig. 21A). Protibiae in males with a ventral comb of setae on apical half, setae about as long as 4th tarsomere. On *Cocos nucifera* ..... ***D. brevis*** Haran sp. nov.

– Elytra longer, at least 2.45 × as long as pronotum (Figs 22A, 28A). Body integument uniformly pale brown or with dark patterns not forming two transverse bands. Protibiae in males with or without a ventral comb of setae on apical half 22

22. Rostrum distinctly longer than pronotum in both sexes, at least 1.2–1.5 × as long as pronotum in lateral view (Figs 22B–C, 26B–C, 27B). Curvature of rostrum moderate 23
– Rostrum comparatively shorter, at most 1.15 × as long as pronotum in lateral view in males (Figs 24B, 25C, 28B), sometimes longer in females. Curvature of rostrum variable, moderate or strong (Figs 28B, 32B) 26

23. Elytra with a large and contrasting dark spot beyond middle of length on each elytron (Fig. 23A), sometimes merged into a transverse dark strip. Pronotum uniformly pale brown. Body of penis very elongate, 4 × as long as wide in dorsal view, with sides concave (Fig. 23D). On *Phoenix reclinata* .....***D. postfasciatus*** Hesse, 1929
– Elytra uniformly pale brown or with dark patterns arranged differently (Figs 22A, 26A, 27A). Pronotum uniformly pale brown or with a median dark line (Figs 22A, 26A). Body of penis variable, elongate or short (Figs 22D, 27C) 24

24. Pattern on elytra variable, but most specimens with a dark spot at base around scutellar shield and one on suture, slightly beyond middle of length (Fig. 22A). Stridulatory plate with lines of granules distinctly converging apicad (Fig. 22E). Eastern Mediterranean region and Arabian Peninsula, on *Phoenix dactylifera* and *P. canariensis* .....***D. antonioui*** Alziar, 2007
– Elytra uniformly pale brown, or with dark patterns not forming two spots on suture (Figs 26A, 27A). Stridulatory plate with lines of granules subparallel or only slightly converging apicad (Fig. 26E). Afrotropical region 25

25. Body comparatively elongate (Fig. 26A), elytra slender (W : L ratio 0.6–0.70). Protibiae in males with short setae. Club dark brown, darker than funicle segments. Body of penis with sides concave near middle of length in dorsal view, apex curved upward in lateral view (Fig. 26D). On *Phoenix reclinata* .....***D. peglerae*** Haran sp. nov.
– Body comparatively short (Fig. 27A), elytra more compact (W : L ratio 0.75). Protibiae in males long erect setae. Club pale brown, concolorous with funicle segments. Body of penis with sides slightly convex near middle of length in dorsal view, apex bisinuate in lateral view (Fig. 27C) .....***D. baka*** Haran sp. nov.

26. Sides of elytra subparallel in dorsal view (Fig. 24A–B). Pronotum almost as wide as elytra near middle of length, at least 0.8 × the width of elytra. On *chamaerops humilis* ....***D. chamaeropis*** (Fabricius, 1798)
– Sides of elytra convex or very convex and lens-shaped in dorsal view (Figs 25A, 26A). Pronotum distinctly narrower than elytra near middle of length, at most 0.70 × the width of elytra 27

27. Elytra widest beyond middle of length (Fig. 25A–B). Body integument uniformly pale brown; head capsule sometimes darker, but not exhibiting a contrasting postocular dark strip (Fig. 25C–D). Protibiae of males with a comb of setae. On *Phoenix canariensis* ..***D. piriformis*** (Hoffmann, 1938)
– Elytra widest at or before middle of length (Fig. 26A). Body integument uniformly pale brown or with dark patterns; head capsule with a more or less contrasting postocular dark strip (Figs 26A, 27A). Protibiae of males with or without a comb of setae 28

28. Rostrum strongly downcurved in lateral view, almost forming a quarter circle (Figs 28B–C, 29B–D) 29
– Curvature of rostrum moderate in lateral view, not forming a quarter circle (Fig. 30C–D) 30

29. Body wider (Fig. 28A); elytra in males very convex laterally, distinctly wider than width of prothorax. Prothorax wider (W : L ratio: 1.54). Rostrum bicoloured, showing black areas laterally and apically (Fig. 28B–C). Club black. On *Phoenix reclinata* ..... ***D. bivirgatus*** Marshall, 1951
– Body narrower (Fig. 29A–B); elytra in males moderately convex laterally, not much wider than width of prothorax. Prothorax narrower (W : L ratio: 1.43–1.50). Rostrum uniformly brown, (Fig. 29B–D), lacking contrasting black areas. Club pale brown, concolorous with funicles segments in females (Fig. 29C). Brown in males (Fig. 29A). On *Phoenix reclinata* ..... ***D. crypticus*** Haran sp. nov.

30. Elytra in male uniformly pale brown (Fig. 30A). Club dark brown. Stridulatory plate with series of 7 or more granules (Figs 30F, 31E) 31
– Elytra with a large brown scutellar spot, located between 4th interstriae and extending beyond middle of length in both sexes (Fig. 32A). Club and funicle concolorous, pale brown. Stridulatory plate with series of 5–6 granules (Fig. 32E) ..... ***D. ephippiger*** Gyllenhal, 1836

31. Rostrum in male as long as pronotum in lateral view, slightly and regularly downcurved (30C); in dorsal view about 3.5 × as long as wide. Internal margin of protibiae in male with short and recumbent setae, not contrasting with the rest of the coating. Body of penis bisinuate at apex in lateral view (Fig. 30E). Stridulatory plate with series of 7–8 granules (Fig. 30F). On *Phoenix reclinata* .... ***D. costiger*** Marshall, 1958
– Rostrum in male longer than pronotum in lateral view, comparatively more downcurved (Fig. 31B); in dorsal view about 4.75 × as long as wide. Internal margin of protibiae in male with a comb of long erect setae, longer than length of claw (Fig. 31D). Body of penis downcurved at apex in lateral view (Fig. 31C). Stridulatory plate with series of 11–12 granules (Fig. 31E). On *Phoenix reclinata* ..... ***D. discus*** Haran sp. nov.

Molecular analyses

DNA-grade specimens were obtained for 19 of the 32 known species of Afrotropical and Mediterranean *Derelomus*. For COI data alone, the lowest interspecific distance was observed between *D. caldarai* and *D. schoedli* (7.6%), while the highest intraspecific distance was observed in *D. chamaeropis* between the Moroccan and Spanish populations (3.4%). The species concepts recovered by morphology were consistent with the best-fit ML tree inferred in IQ-TREE from the analysis of the concatenated dataset, where all species represented by several individuals were found to be monophyletic (Fig. 33). The genus *Derelomus* was recovered monophyletic, with moderate support (SH-aLRT of 83.4% and uBV of 64%). Within *Derelomus*, interspecific relationships were not highly supported (only four nodes out of 18 have both SH-aLRT ≥80% and uBV values ≥95%); however, nodes leading to specimens belonging to multiple specimens of the same species were generally highly supported (nine nodes out of 12 have both SH-aLRT > 80% and uBV values > 95%).

Molecular species delimitation analyses based on the COI dataset were highly consistent with the morphological concepts of species, as the results of most SD analyses support extant species boundaries (Fig. 34). A potential lumping of species was inferred only once with the ASAP analysis, between *D. pallidus* and *D. prochesi.* Potential intraspecific splits were found twice in the bPTP analysis (for *D. schoedli* and *D. trinotatus*), once in the PTP(ML) analysis (for *D. schoedli*) and three times in the GMYCm analysis (for *D. fasciatus*, *D. peglerae* and *D. prochesi*).

Discussion

A total of 32 valid *Derelomus* species are recognised in the Afrotropical and Mediterranean regions, 14 of which are described here as new. Five species names were also set in synonymy after comparison with the type material. Based on morphological features and partly on the results of molecular

phylogenetic analyses, *Derelomus* species from the study area can be grouped into four main species groups (*D. signatus*, *D. pallidus*, *D. nigrovariegatus* and *D. ephippiger* groups) which also show a general consistency regarding their host repertoire and distribution range (Table 1). The affinities of three species (*D. trinotatus*, *D. fasciatus* and *D. languidus*) are unclear yet and they are therefore kept as separate species groups. The molecular phylogeny based on nuclear and mitochondrial gene fragments recovered these groups with high support for the *D. signatus* group (three spp. included; SH-aLRT of 98.7% and uBV of 100%) and the *D. pallidus* group (two spp. included; SH-aLRT of 96.4% and uBV of 100%). The *D. nigrovariegatus* and *D. ephippiger* groups were either too sparsely sampled or recovered polyphyletically (though with low support), respectively. The low support at the crown of the phylogenetic tree of *Derelomus* is consistent with a previous inference based on similar dataset but with a larger sampling of genera in Derelomini (Haran *et al.* 2022a). This pattern was not found in related genera analysed with similar datasets (*Elaeidobius* and *Ebenacobius*), which suggests that *Derelomus* may have undergone rapid radiation during its early stages of diversification. The lack of a strong support overall for the inferred tree precludes further interpretation, so future studies using larger molecular datasets and denser species sampling are needed to elucidate the evolution of this genus. Overall, the results of the molecular SD analyses strongly support the species status that are based on morphological concepts. Out of the seven SD methods implemented, lumping was only suggested by the ASAP approach while splitting was only inferred six times with tree-based approaches (bPTP, PTP(ML) and GMYCm). This pattern is expected as distance-based SD methods tend to over-lump while tree-based SD methods are generally known to over-split (Pentinsaari *et al.* 2017; Renner *et al.* 2017; Dellicour & Flot 2018; Le Ru *et al.* 2022; Hévin *et al.* 2024).

The taxonomy of *Derelomus* remains challenging and several species concepts proposed here would benefit from more investigations. This applies to certain taxa in the *D. ephippiger*, *D. fasciatus* and *D. signatus* species groups for which the species status of morphologically slightly divergent populations from eastern and southern Africa was often difficult to establish. The most parsimonious approach was used here (i.e., avoiding species description when based solely on slight morphological divergences), but it is likely that molecular analyses used on a denser sampling of populations will uncover cryptic diversity in these lineages. In the *D. ephippiger* and *D. signatus* groups in particular, many species are known from very few specimens or localities and it is expected that there are more species in these groups than are reported in this work. When studying *Derelomus*, it should also be noted that many species are human-transported with their hosts outside their native range (e.g., *D. piriformis* with *Phoenix canariensis* in the Mediterranean region; *D. costiger*, *D. postfasciatus* and *D. strangulatus* with *P. reclinata* in the Western Cape Province of the Republic of South Africa, etc.), which may result in reconnection of allopatric neighbouring species and the formation of hybrids. A few poorly sclerotized specimens from Kenya with hybrid phenotypes between species of the *D. ephippiger* group suggest that this process may have arisen at least sporadically.

The data assembled in this study revealed some trends in the ecology and evolution of the genus *Derelomus*. A first notable point is the ratio of species with non-palm hosts. Though typically seen as a palm-associated genus (Lepesme 1947; Franz & Valente 2005), we show here that about 40% of *Derelomus* species with known host are in fact associated with other monocot (Strelitziaceae) or dicot families (Achariaceae, Anacardiaceae, Ebenaceae and Fabaceae). This observation confirms the findings of Haran *et al.* (2022a), who revealed that *Derelomus* species frequently shift from palms (Arecaceae) to other plant lineages. In the case of the *D. signatus* group, the shift to *Vachellia* (Fabaceae) has seemingly led to an increase of diversification, a process probably still ongoing owing to the close relatedness of species in this group. Yet, the role of *Derelomus* species in the pollination of their host has only been established for *D. chamaeropis* and *Chamaerops humilis* and for *D. piriformis* and *Phoenix canariensis* (Anstett 1999; Meekijjaroenroj & Anstett 2003). Although weevils generally exhibit niche conservatism at the genus level for such interactions (Haran *et al.* 2023a), detailed ecological studies are needed to

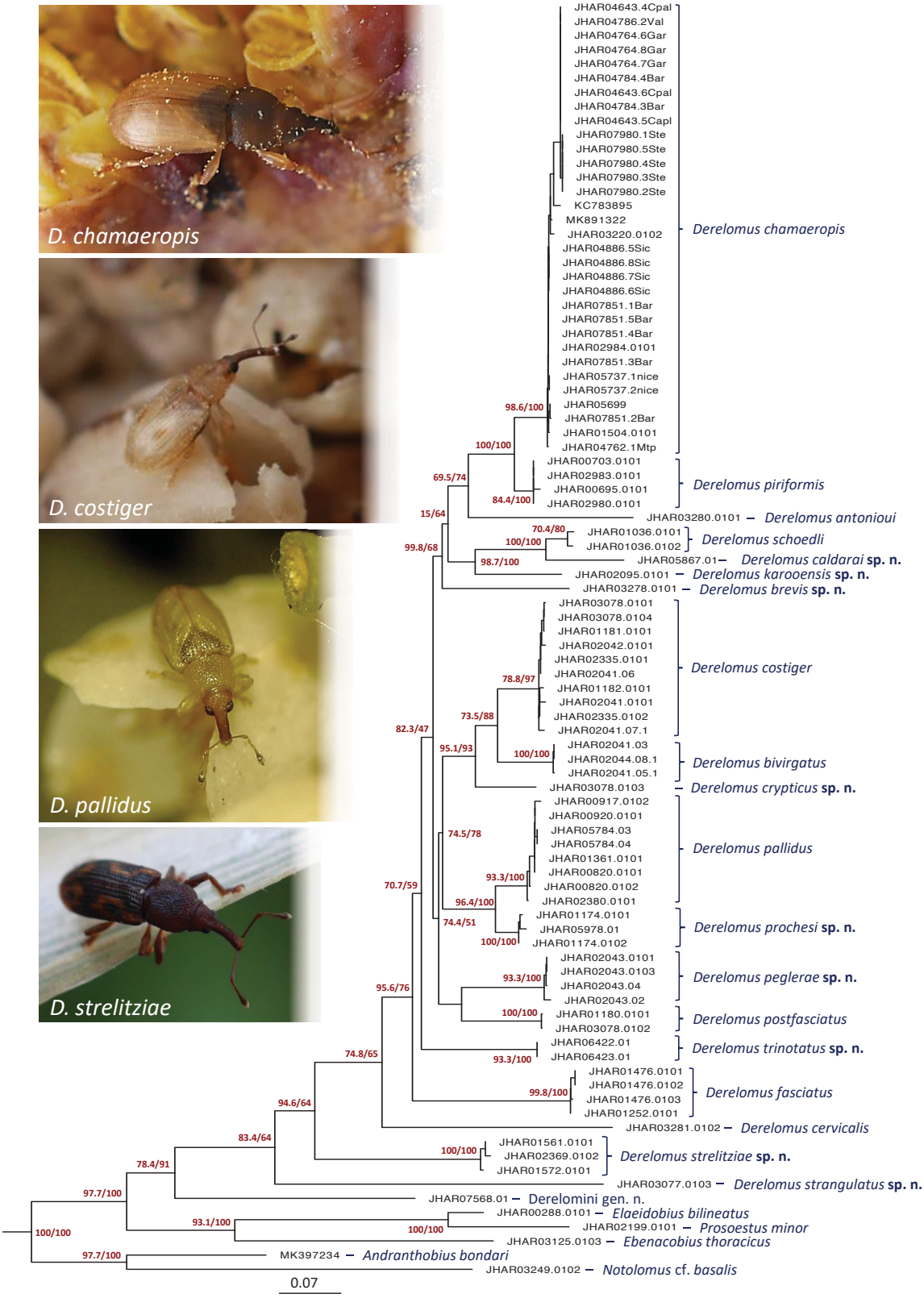

Fig. 33. Best-fit ML tree of Afrotropical and Mediterranean *Derelomus* Schoenherr, 1825, inferred from nuclear and mitochondrial genes. Node support refers to SH-like approximate likelihood ratio tests (SH-aLRT) and ultrafast bootstrap values (uBV), in that order.

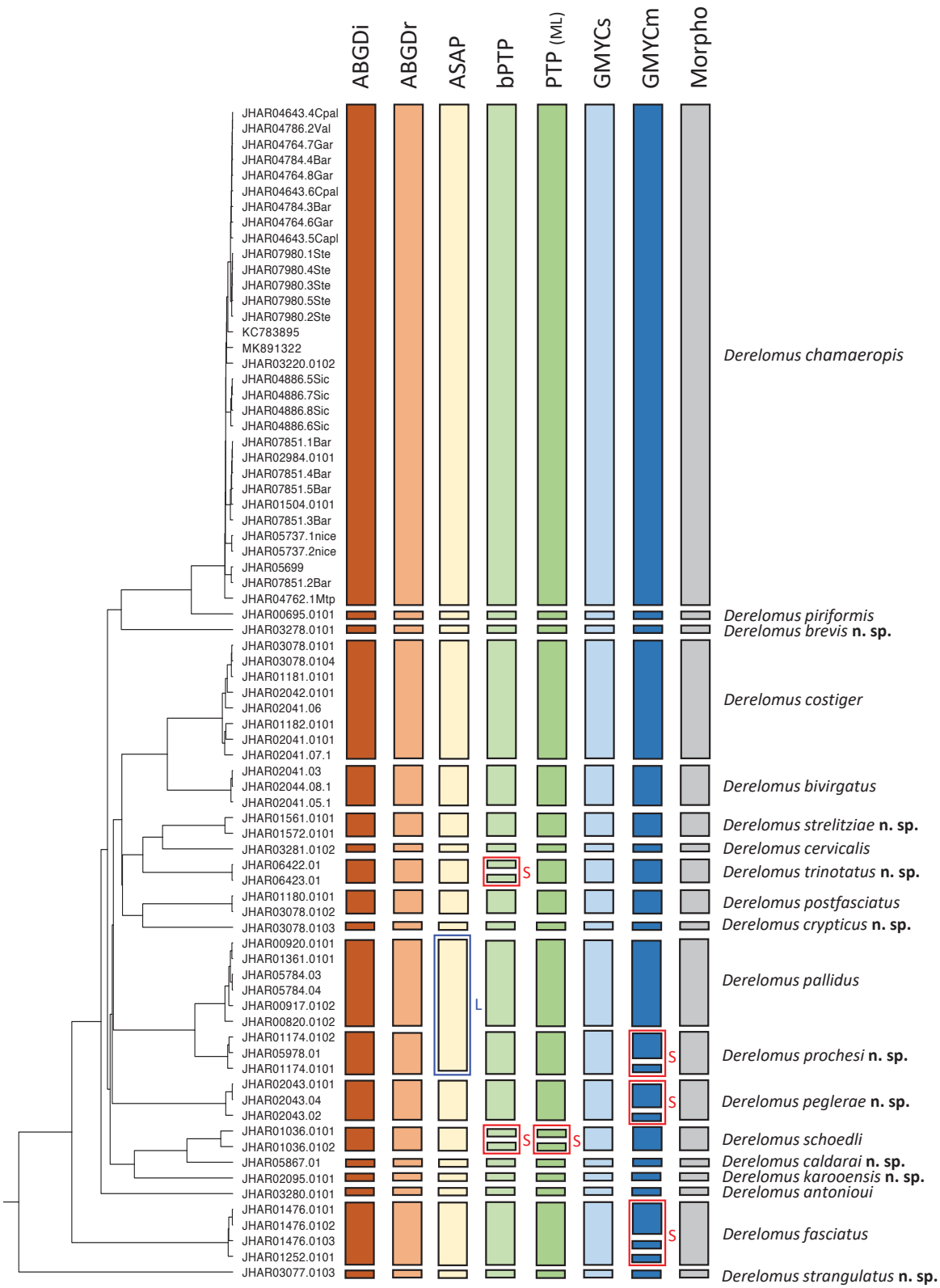

Fig. 34. Results from molecular species delimitation analyses for the 19 species of *Derelomus* Schoenherr, 1825 with COI sequence available. Grey vertical lines on the right refer to morphological concepts of species and colored lines refer to the results of molecular species delimitation analyses. Blue and red boxes highlight species lumped (L) or splitted (S) respectively for the corresponding analyses.

Table 1 (continued on next page). Distribution range and host plant associations of the *Derelomus* Shoenherr, 1825 from the Afrotropical and Mediterranean regions. * = larvae bred from tissues of inflorescences.

Group	Species	Distribution	Host	Host fam.
D. signatus	*D. signatus* Gyllenhal, 1836	Ethiopia, Kenya, S Africa, Zambia	*Vachellia seyal, V. hockii, V. sp.*	Fabaceae
	D. karooensis sp. nov.	S Africa	*Vachellia karroo*	Fabaceae
	D. acuminatus sp. nov.	Ethiopia, Kenya, S Africa (?)	*Vachellia xanthophloea*	Fabaceae
	D. abyssinicus Hustache, 1936	Ethiopia, Kenya, Rwanda, Tanzania, Uganda	*Vachellia seyal, V. hockii, V. sp.*	Fabaceae
	D. caldarai sp. nov.	S Africa, Tanzania	*Mimosa sp.*	Fabaceae
	D. lindbergi Roudier, 1957	Burkina F., Cameroun, Cape Verde Archipelago, Senegal	*Vachellia sp.*	Fabaceae
	D. pericarti Hoffmann, 1968	Cameroun, Chad	*Vachellia nilotica*	Fabaceae
	D. schoedli Rheinheimer, 2005	Ethiopia, Saudi Arabia	*Vachellia sp.*	Fabaceae
D. pallidus	*D. pallidus* Fåhraeus, 1844 = *D. pallidus* Hartmann, 1904 = *D. hartmanni* Klima, 1934	Angola, Kenya, S Africa, Tanzania, Uganda	*Euclea racemosa*	Ebenaceae
	D. setifer sp. nov.	S Africa	–	–
	D. prochesi sp. nov.	S Africa	*Kiggelaria africana*	Achariaceae
D. nigrovariegatus	*D. strelitziae* sp. nov.	S Africa	*Strelitzia nicolai**	Strelitziaceae
	D. strangulatus sp. nov.	S Africa	*Phoenix reclinata*	Arecaceae
	D. zonatus Marshall, 1950	Democratic Republic of Congo	*Phoenix reclinata*	Arecaceae
	D. brunneus sp. nov.	Democratic Republic of Congo	*Phoenix reclinata*	Arecaceae
	D. ater Marshall, 1950	Democratic Republic of Congo	*Phoenix reclinata*	Arecaceae
	D. nigrovariegatus Hustache, 1936	Ethiopia	–	–
D. trinotatus	*D. trinotatus* sp. nov.	Cameroon, Gabon, Liberia, Nigeria	–	–
D. fasciatus	*D. fasciatus* Hartmann, 1904	S Africa, Tanzania	*Searsia glauca*	Anacardiaceae
D. languidus	*D. languidus* Fåhraeus, 1844 = *D. rectirostris* Hustache, 1937	Democratic Republic of Congo, S Africa	*Phoenix reclinata*	Arecaceae

Table 1 (continued). Distribution range and host plant associations of the *Derelomus* Shoenherr, 1825 from the Afrotropical and Mediterranean regions. * = larvae bred from tissues of inflorescences.

Group	Species	Distribution	Host	Host fam.
D. ephippiger	*D. brevis* sp. nov.	Kenya, Tanzania, La Réunion, Mayotte islands	*Cocos nucifera*	Arecaceae
	D. antonioui Alizar, 2007	Cyprus, Saudi Arabia	*Phoenix canariensis, P. dactylifera*	Arecaceae
	D. postfasciatus Hesse, 1929	S Africa	*Phoenix reclinata*	Arecaceae
	D. chamaeropis (Fabricius, 1789) = *D. subcostatus* Boheman, 1844 = *Ochrinulus antigae* Reitter, 1887	Western Mediterranean region	*Chamaerops humilis**	Arecaceae
	D. piriformis (Hoffmann, 1938) = *D. kocheri* Hoffmann, 1957	Canary Island, Mediterranean region (intr.), USA (intr.)	*Phoenix canariensis**	Arecaceae
	D. peglerae sp. nov.	Angola, Ethiopia, Kenya, S Africa, Uganda	*Phoenix reclinata*	Arecaceae
	D. baka sp. nov.	Cameroon		
	D. bivirgatus Marshall, 1951	Kenya, S Africa, Uganda	*Phoenix reclinata*	Arecaceae
	D. crypticus sp. nov.	Kenya, S Africa	*Phoenix reclinata*	Arecaceae
	D. costiger Marshall, 1958 = *Psilocaulus elatus* Richard, 1959	Angola, Comoros & Reunion Islands, Ivory Coast, Kenya, Mozambique, Senegal, S Africa, USA (intr.), Zimbabwe	*Phoenix reclinata*	Arecaceae
	D. discus sp. nov.	S Africa	*Phoenix reclinata*	Arecaceae
	D. ephippiger Gyllenhal, 1836 = *D. auberti* Hustache, 1932	Gabon, Nigeria, Senegal	–	–
incertae sedis	*D. thalioculus* Poinar & Legalov, 2015		Dominican amber	

clarify whether such mutualism is at work with plant lineages outside palms. This study also revealed the prominent role of one palm species, *Phoenix reclinata*, in hosting diverse species of Afrotropical *Derelomus*. At least a third of the species treated here (11 in total) were found associated with this host, on male inflorescences or fruits, either in sympatry or in apparent allopatry. *Phoenix reclinata* is widely distributed in Africa and can be found in a range of ecosystems from coastal habitat up to 2000 m high in the Cameroon volcanic line (T. Couvreur pers. com.). This case merits further investigation into the level of dependence on *Derelomus* species for the pollination of this palm as it would provide a relevant model for studying whether this host uses different locally-adapted pollinators to ensure reproduction across contrasting regions. More generally, only a few palms in the comparatively poor Afrotropical region (Couvreur *et al.* 2011) appear to be associated with *Derelomus*, a pattern likely reflecting the reality because these plants are well sampled by entomologists due to their economic and ornamental value and their conspicuous inflorescences (Lepesme 1947; Franz & Valente 2005). In all, only five species (*Chamaerops humilis*, *Cocos nucifera*, *Phoenix canariensis*, *P. dactylifera* and *P. reclinata*) are associated at least with one specialised species of *Derelomus* developing in its male inflorescences and thus pollinating or possibly pollinating it. As such, ciophily in palms clearly departs from the one-to-one pollination mutualism usually expected in this kind of system (Herre *et al.* 2008, but see Cruaud *et al.* 2012), and the majority of species probably use other systems to ensure their pollination.

A second remarkable point is the distribution of the genus in the study area. *Derelomus* species are mostly recorded in Mediterranean, sub-arid or subtropical regions and are seemingly almost absent from tropical rainforests of Central and West Africa, even though these ecosystems host most of the diversity of African palms (Dransfield *et al.* 2008), the primary hosts for *Derelomus*. This genus is possibly poorly adapted to the conditions in these forests, as suggested by the fact that palms typical of these ecosystems such as the African oil palm (*Elaeis guineensis* Jacq.) are associated with other genera in Derelomini (*Elaeidobius* and *Prosoestus*; Lepesme 1947). Either *Derelomus* is not coping well with tropical wet conditions, or – in case of ciophily – plants in arid or semi-arid biomes are more prone to engage in interactions with this genus.

Derelomus species exhibit several morphological features related to their peculiar lifestyle. The males of many species bear a distinct comb of erect setae on the protibiae. Such structures are generally interpreted as pollen-carrying systems to improve pollination in ciophily (de Medeiros & Farrell 2020; Hsiao & Oberprieler 2022). Dimorphism in males also manifests by wide and costate elytra, resulting in a wider and more convex body shape compared to females, which contrasts with what is seen in weevils in general. This apparent reversed dimorphism has led to a misinterpretation of species' concepts in some cases (see the Remarks section under *D. piriformis*). The shape of these enlarged elytra mimics remarkably the structure of the petals of male flowers of the palm hosts of the species exhibiting these features, which probably serve as camouflage to avoid predation. Enlarged elytra can also be interpreted as an adaptation to fighting between males, since they have been observed trying to dislodge and replace other males in copula by lifting them laterally in other Derelomini (*Elaeidobius*; JH obs.). The presence of major and minor males for this feature in several species (*D. antonioui*, *D. chamaeropis*, *D. costiger* etc) tends to confirm this hypothesis. Finally, the stridulatory plates in males showed some degree of variation between closely related species (number and distance between granules) found in sympatry on the same host. These divergences suggest that acoustic communication via stridulation is used by species for intra- and/or inter-specific recognition.

The fossil *Derelomus thalioculus* Poinar & Legalov, from the Dominican amber is distinct from neotropical lineages of "Derelomini" sensu Franz 2006) and agrees in several respects with features of *Derelomus* as currently understood: pronotum with distinct lateral carina (feature absent from neotropical Derelomini), pygidium concealed by elytra, scrobes directed toward eyes and eyes convex (Poinar & Legalov 2015). However, none of these features are specific to *Derelomus* and they are observed at least in two other genera in Derelomini sensu stricto (i.e., *Elaeidobius* and *Ebenacobius*). In addition, the

distinct fovea on forehead and the campanuliform shape of pronotum (Fig. 2; Poinar & Legalov 2015) are features absent in the genus *Derelomus* in its current concept. The fovea is found in *Ebenacobius* and some *Elaeidobius*, and the campanuliform pronotum is typical for *Elaeidobius*. The only distinctive feature enabling to ascertain the placement of this species in *Derelomus* is the narrowing of the base of the penis, but this character is not accessible for amber-preserved specimens, at least with traditional observation methods. Based on this, it is reasonable to set *Derelomus thalioculus* Poinar & Legalov in "Derelomini incertae sedis", as it might represent an intermediate lineage set between *Elaeidobius* and *Derelomus*.

Two hundred years after the description of the genus by Schoenherr, this work presents an updated taxonomic framework for *Derelomus* in Africa and the Mediterranean region, incorporating new data on host associations. This body of information lays the foundation for the clarification of species complexes, the evolution of the group and the exploration of the pollination ecology of the associated plants.

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Appendix 1

GenBank accession numbers for the gene fragments used. Numbers in bold refer to newly generated sequences in this study (continued on next page).

Sequence_ID	Organism	ArgK	COI	COII	EF1
JHAR03280_0101	*Derelomus antonioui*		OK188822		
JHAR02041_0103	*Derelomus bivirgatus*		**PV698441**		
JHAR02041_0105	*Derelomus bivirgatus*		**PV698442**		
JHAR02044_0108	*Derelomus bivirgatus*		**PV698443**		
JHAR03278_0101	*Derelomus brevis*	ON551420	ON553436	ON551428	ON551455
JHAR05867_0101	*Derelomus caldarai*		**PV698444**		
JHAR03281_0102	*Derelomus cervicalis*		**PV698445**		ON551478
JHAR01504_0101	*Derelomus chamaeropis*	OK181237	OK188812	OK283558	OK283501
JHAR03220_0102	*Derelomus chamaeropis*		OK188813		
JHAR02984_0101	*Derelomus chamaeropis*		**PV698473**		
JHAR04643_0104	*Derelomus chamaeropis*		**PV698446**		
JHAR04643_0105	*Derelomus chamaeropis*		**PV698447**		
JHAR04643_0106	*Derelomus chamaeropis*		**PV698448**		
JHAR04762_0101	*Derelomus chamaeropis*		**PV698449**		
JHAR04764_0106	*Derelomus chamaeropis*		**PV698450**		
JHAR04764_0107	*Derelomus chamaeropis*		**PV698451**		
JHAR04764_0108	*Derelomus chamaeropis*		**PV698452**		
JHAR04784_0103	*Derelomus chamaeropis*		**PV698453**		
JHAR04784_0104	*Derelomus chamaeropis*		**PV698454**		
JHAR04786_0102	*Derelomus chamaeropis*		**PV698455**		
JHAR04886_0105	*Derelomus chamaeropis*		**PV698456**		
JHAR04886_0106	*Derelomus chamaeropis*		**PV698457**		
JHAR04886_0107	*Derelomus chamaeropis*		**PV698458**		
JHAR04886_0108	*Derelomus chamaeropis*		**PV698459**		
JHAR05699_0101	*Derelomus chamaeropis*		**PV698460**		
JHAR05737_0101	*Derelomus chamaeropis*		**PV698461**		
JHAR05737_0102	*Derelomus chamaeropis*		**PV698462**		
JHAR07851_0101	*Derelomus chamaeropis*		**PV698463**		
JHAR07851_0102	*Derelomus chamaeropis*		**PV698464**		
JHAR07851_0103	*Derelomus chamaeropis*		**PV698465**		
JHAR07851_0104	*Derelomus chamaeropis*		**PV698466**		
JHAR07851_0105	*Derelomus chamaeropis*		**PV698467**		
JHAR07980_0101	*Derelomus chamaeropis*		**PV698468**		
JHAR07980_0102	*Derelomus chamaeropis*		**PV698469**		
JHAR07980_0103	*Derelomus chamaeropis*		**PV698470**		
JHAR07980_0104	*Derelomus chamaeropis*		**PV698471**		
JHAR07980_0105	*Derelomus chamaeropis*		**PV698472**		
JHAR01181_0101	*Derelomus costiger*	ON551404	ON553418	ON551445	ON551460
JHAR03078_0104	*Derelomus costiger*	ON551415	ON553419	ON551435	ON551465
JHAR03078_0101	*Derelomus costiger*	ON551414	ON553420	ON551434	ON551464
JHAR02042_0101	*Derelomus costiger*	ON551413	ON553421	ON551449	ON551459
JHAR01182_0101	*Derelomus costiger*	ON551405	ON553422	ON551446	ON551461

GenBank accession numbers for the gene fragments used. Numbers in bold refer to newly generated sequences in this study (continued).

Sequence_ID	Organism	ArgK	COI	COII	EF1
JHAR02041_0101	*Derelomus costiger*	ON551412	ON553423	MZ275338	MZ275409
JHAR02041_0106	*Derelomus costiger*		**PV698474**		
JHAR02041_0107	*Derelomus costiger*		**PV698475**		
JHAR02335_0101	*Derelomus costiger*				ON551462
JHAR02335_0102	*Derelomus costiger*	ON551410		ON551436	ON551463
JHAR03078_0103	*Derelomus crypticus*	ON551416	ON553424	ON551432	ON551466
JHAR01252_0101	*Derelomus fasciatus*	OK181243	OK188823	OK283564	OK283506
JHAR01476_0101	*Derelomus fasciatus*	OK181244	OK283507		OK283507
JHAR01476_0103	*Derelomus fasciatus*		ON553434		ON551475
JHAR01476_0102	*Derelomus fasciatus*	ON551421	ON553435		ON551476
JHAR02095_0101	*Derelomus karooensis*	ON551422	ON553427	ON551429	ON551477
JHAR00920_0101	*Derelomus pallidus*	ON551400	ON553416		
JHAR01361_0101	*Derelomus pallidus*	ON551403	ON553430	ON551448	ON551474
JHAR00820_0102	*Derelomus pallidus*		**PV698476**		
JHAR00917_0102	*Derelomus pallidus*		**PV698477**		
JHAR05784_0103	*Derelomus pallidus*		**PV698478**		
JHAR05784_0104	*Derelomus pallidus*		**PV698479**		
JHAR02380_0101	*Derelomus pallidus*			ON551430	
JHAR02043_0101	*Derelomus peglerae*	ON551419	ON553433	ON551450	ON551469
JHAR02043_0102	*Derelomus peglerae*		**PV698480**		
JHAR02043_0104	*Derelomus peglerae*		**PV698481**		
JHAR00695_0101	*Derelomus piriformis*	OK181235	OK188814	OK283559	OK283503
JHAR01180_0101	*Derelomus postfasciatus*	ON551406	ON553425	ON551444	ON551467
JHAR03078_0102	*Derelomus postfasciatus*	ON551418	ON553426	ON551433	ON551468
JHAR01174_0101	*Derelomus prochesi*	ON551402	ON553431	ON551447	ON551471
JHAR01174_0102	*Derelomus prochesi*	ON551417	ON553432	ON551431	ON551472
JHAR05978_0101	*Derelomus prochesi*		**PV698482**		
JHAR01036_0101	*Derelomus schoedli*		OK188815	OK283555	
JHAR01036_0102	*Derelomus schoedli*		OK188816	OK283556	
JHAR03077_0103	*Derelomus strangulatus*		ON553437	ON551437	ON551482
JHAR01561_0101	*Derelomus strelitziae*	ON551407	ON553428	ON551443	
JHAR01572_0101	*Derelomus strelitziae*	ON551408	ON553429	ON551442	ON551479
JHAR06422_0101	*Derelomus trinotatus*		**PV698483**		
JHAR06423_0101	*Derelomus trinotatus*		**PV698484**		