A REVISION OF THE GENUS *DIASTOLINUS* MULSANT AND REY (COLEOPTERA: TENEBRIONIDAE) OF THE WEST INDIES

by

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A thesis submitted in partial fulfillment
of the requirements for the degree

of

Master of Science

in

Entomology

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DEDICATION

This work is dedicated to my incredibly supportive Mother and Father for always encouraging me no matter the difficulty.

ACKNOWLEDGEMENTS

Many thanks go to Michael Ivie who guided and supported me through this difficult project. I am grateful for the useful comments on the draft of this document from my committee members Kevin O'Neill, and Matt Lavin. I am thankful for the support of all of the institutions, collection managers and curators listed under Material Examined that loaned specimens to make this project possible. I am grateful for all of their efforts. Special thanks to Maxwell Barclay, Doug Yanega, Patrice Bouchard, Neal Evenhuis, and Frank.Krell for nomenclatural advice. Thanks to Johannes Bergsten for photographing the *Diastolinus tibidens* holotype. Frank Etzler, Vinicius Ferreira, and Amy Dolan provided much support and fruitful discussions. Thanks to Ladonna Ivie for providing support and delicious snacks at the lab. I am especially appreciative of my wife, An Nguyen, for her help with edits and figures.

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ABSTRACT

The West Indian genus *Diastolinus* Mulsant and Rey, 1859 is revised and its species redescribed (type species: *Diastolinus clathratus* (F.)). The genus now includes 18 species divided among three species-groups, eight of which are described as **new species** herein: *Diastolinus chalumeaui* Hart and Ivie, **new species**; *Diastolinus leewardensis* Hart and Ivie, **new species**; *Diastolinus shieli* Hart and Ivie, **new species**; *Diastolinus azuaensis* Hart and Ivie, **new species**; *Diastolinus desecheo* Hart and Ivie, **new species**; *Diastolinus doyeni* Hart and Ivie, **new species**; *Diastolinus vaderi* Hart and Ivie, **new species**; and *Diastolinus hoppae* Hart and Ivie, **new species**. The following nomenclatural changes are proposed: *Diastolinus hummelincki* Marcuzzi, 1962 (= *Diastolinus clavatus* Mulsant and Rey, 1859, **new synonymy**), *Diastolinus mulsanti* Marcuzzi and D'Aguilar, 1971 (= *Diastolinus clavatus* Mulsant and Rey, 1859, **new synonymy**), and *Diastolinus estebani* Garrido, 2004a (= *Diastolinus coarctatus* (Mulsant and Rey, 1859), **new synonymy**). A **lectotype** and **paralectotypes** are designated for *Diastolinus hummelincki* Marcuzzi, *Ctesicles insularis* Champion and *Ctesicles maritimus* Champion. The keys, descriptions, and distribution maps demonstrate that all 18 species are readily distinguished by both morphological and biogeographical attributes even though they are mostly ecologically confined to seasonally dry woodlands and forests.

Disclaimer: This thesis is not intended to meet the provision of the ICZN (1999) reguarding publication of new nomenclatural acts [Art. 8.2]. No name or nomenclatural act proposed herin should be considered available as defined by the ICZN.

CHAPTER ONE

A REVISION OF THE GENUS *DIASTOLINUS* MULSANT AND REY (COLEOPTERA: TENEBRIONIDAE) OF THE WEST INDIES

Contribution of Authors and Co-Authors

Manuscript in Chapter 1

Author: Charles J. Hart

Contributions: Identified specimens, reviewed literature, wrote the key to species, wrote species descriptions, databased material, photographed specimens, prepared figures and wrote the first draft of the manuscript.

Co-Author: Michael A. Ivie

Contributions: Helped conceive the project, collected specimens, assembled loaned material, studied type specimens in Copenhagen, provided feedback on early drafts of the manuscript.

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Key Words: Caribbean, taxonomy, darkling beetles, xerophiles, island biogeography.

INTRODUCTION

Diastolinus Mulsant and Rey as defined by Ivie and Hart (2016) are a group of ten nominal West Indian species of "blapstinoids" and eight previously undescribed species, all of which are flightless. This group is common in xerophytic habitats within its range (Hispaniola to Grenada), although its biology is unknown. *Diastolinus* now includes the genera *Sellio* Mulsant and Rey and *Ctesicles* Champion, but excludes many species formerly considered to be *Diastolinus* (Ivie and Hart 2016). These species are now treated as *Xerolinus* Ivie and Hart, *Blapstinus* Dejean, *Goajiria* Ivie and Hart or *Nevisia* Marcuzzi.

Diastolinus are small to moderate-sized (~4.8 -10.6 mm) black beetles distributed in the eastern Greater Antilles (Hispaniola, Puerto Rico and the Virgin Islands), and the Lesser Antilles. Ivie and Hart (2016) defined the blapstinoid group as Opatrina with a laterally divided eye, the division being made up of the epistomal canthus extending front-to-back so that the eye is divided into upper and lower lobes, and having the male foretarsus expanded. Among the blapstinoids, *Diastolinus* is characterized by the flightless syndrome (rounded humeral angle, short metasternum, absent or reduced flight wings); fused elytra; ventrite 1 with a series of strong punctures at the anterior margin immediately behind the metacoxa; and, most diagnostically, the elytron with a particular modification of the striae so that the anterior end of stria 8 is displaced laterad, and, cut off from base of elytra by stria 7 which also curves laterad and ends either at the humeral angle or the lateral stria.

On islands, there may be strong selective pressures to become flightless (Darlington 1943, Hopp and Ivie 2009). We hypothesize that *Diastolinus* represents a clade of blapstinoids that had a common winged ancestor similar to a modern *Blapstinus*. The flightless condition of *Diastolinus* has led to a diverse body form sharing a common syndrome characterized by rounded humeral angles, a shortened metathorax, and fused elytra (Hopp and Ivie 2009, Ivie and Hart 2016). Absent flight, there is no longer a need to house or expend resources to build the extensive musculature for indirect flight in the metathorax and what is left of the wing structure may have relative freedom to change. Drift could be at work here, as long as structures did not drift in a direction that would be countered by selection (unless the populations are very small).This entire wingless condition seems to have freed the epipleuron and humeral structure to be radically different in structure. This explains the diversity of forms and shapes exhibited in *Diastolinus*.

Ivie and Hart (2016) review the broader taxonomic history of the West Indian blapstinoids, and the resulting redefinition of *Diastolinus* used herein. The taxonomic history of this redefined genus began in 1792 when Fabricius named the earliest recorded *Diastolinus* species, *Blaps clathratus* Fabricius from St. Croix. The genus *Sellio* Mulsant and Rey was named a little over ten years later with the Swedish worker Quensel describing *Blaps tibidens* Quensel from Puerto Rico (Quensel in Schönherr 1806). In that same volume, Schönherr (1806) first used the name "*Opat. perforatum*" as a nomen nudem attributed to Gyllenhal, placed in synonymy with Fabricius' (1792) valid name *Blaps punctata* (now the type species of *Blapstinus* Mulsant and Rey). Next, Dejean

(1821) treated it as the valid name *perforatum* from "Am. Ins." in a list of *Opatrum*, and also attributed the species epithet to Gyllenhal ("valid" here meaning that Dejean considered it a valid species, not that the name was made available, as there was no description). Two years later, Sahlberg (1823) made the name available when he first applied a description to the name *Opatrum perforatum* Sahlberg, although he attributed it to Gyllenhal. The authorship of this name has been the subject of much confusion as Mulsant and Rey attributed the name to Gyllenhal, but later Marcuzzi attributed it to Sahlberg (Mulsant and Rey 1859, Marcuzzi 1962). The actual author is Schönherr (1806, see below).

It was not until 1859 that *Diastolinus* and *Sellio* were separated from *Blaps* and *Opatrum* and described in Mulsant and Rey's (1859) revisionary work. That work yielded the new combinations *Diastolinus clathratus* (Fabricius), *Diastolinus perforatus* (Schönherr), and *Sellio tibidens* (Quensel), as well as two new species: *Diastolinus clavatus* Mulsant and Rey and *Sellio coarctatus* Mulsant and Rey.

The genus *Ctesicles* Champion was said to be distantly allied to *Diastolinus* when it was first described, but no direct comparison was made between the two genera (Champion 1896). In that paper, Champion named two species: *Ctesicles insularis* and *Ctesicles maritmus*.

The genus as now defined was largely untouched besides species lists (Leng and Mutchler 1914, Blackwelder 1945) for more than 50 years until Marcuzzi began working on the group in the late 1940s. His initial works on the group were mostly focused on South American fauna (Marcuzzi 1949, 1950, 1954, 1959), now placed in *Goajiria* Ivie

and Hart. It was not until 1962 that he described any new West Indian species of true *Diastolinus* – *Diastolinus hummelincki* Marcuzzi. Unfortunately, he apparently forgot that he had already named a completely different species as *Diastolinus hummelincki* Marcuzzi (now in *Goajiria* Ivie and Hart, 2016) from South America in 1949. He replaced his own homonym in 1971 with the name *Diastolinus mulsanti* Marcuzzi. A few years later in 1977, he described *Diastolinus elongatus* Marcuzzi from Puerto Rico. However, this was a self-made homonym of *Diastolinus elongatus* Marcuzzi 1976 from Cuba (now in *Xerolinus* Ivie and Hart, 2016). *Diastolinus elongatus* Marcuzzi 1977 (not 1976) from Puerto Rico was replaced by Garrido with the new replacement name *Diastolinus victori* Garrido for the Puerto Rican species (Garrido 2002).

The next author that named many of the described West Indian *Diastolinus* was Garrido, who described *Diastolinus estebani* Garrido (2004a) and *Sellio gladiator* Garrido (2004b) from Hispaniola. The most recently named species was *Diastolinus espoloni* Garrido from Hispaniola (2007).

In spite of a long taxonomic history, the group has not been given a proper revisionary treatment since Mulsant and Rey (1859). As a result, the species definitions are difficult to interpret and the relationships between species are not well understood. Ivie and Hart (2016) give a long and detailed discussion of the resulting confussion.

MATERIAL

An attempt was made to see types, photos of types or topotypic material of all species of *Diastolinus* and vouchers for each island record, but this was not completely

possible. Often, in the absence of an available voucher, records can be corrected based on knowledge of correct distributions. New material was identified, and new island records of described species are reported. Records whose correct identity could not verified by vouchers, topotypic material or known distributions are placed *incertae sedis*.

Specimens were studied from:

AMNH – American Museum of Natural History, New York, New York (Lee H. Herman).
BMNH – The Natural History Museum, London, United Kingdom (Maxwell V. L. Barclay).
CMNH – Carnegie Museum of Natural History, Pittsburg, Pennsylvania (Robert L. Davidson).
EPRL – University of Puerto Rico at Mayagüez, Mayagüez, Puerto Rico.
FMNH – Field Museum of Natural History, Chicago (Crystal Maier).
FSCA – Florida State Collection of Arthropods, Gainesville, Florida (Michael C. Thomas, Paul E. Skelley).
HNHM – Hungarian Natural History Museum, Budapest, Hungary (Ottó Merkl).
HPPR – Colección de la Hacienda Paraíso, Km. 10, Real Anón, Ponce, Puerto Rico (Antonio Pérez Asso).
MLPC – Martin Lillig, personal collection, Department of Environmental Sciences, University of Basel.
MCZC – Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts (Philip Perkins).
MNHC – Museo Nacional de Historia Natural, Habana, Cuba (Orlando H. Garrido).
MHNL – France, Lyon, Museé d'Histoire Naturelle de Lyon, Lyon, France (Harold Labrique).
MNHN – Muséum National d'Histoire Naturelle, Paris (Antione Mantilleri).
MSNG – Museo Civico di Storia Naturale "Giacomo Doria," Genova, Italy (Roberto Poggi).
NHMB – Naturhistorisches Museum, Basel, Switzerland (Eva Sprecher).
NHRS –Naturhistoriska riksmuseet, Sweden, Stockholm (Johannes Bergsten).
NMNH – National Museum of Natural History, Washington D.C. (Warren E. Steiner).
NMPC – National Museum, Prague, Czech Republic (Svatopluk Bílý).
OHGC – Orlando H. Garrido personal collection, Havana, Cuba.
OSUC – The Ohio State University, Columbus, Ohio (Luciana Musetti).
WIBF – West Indian Beetle Fauna Project Collection, Montana State University, Bozeman, Montana (Michael A. Ivie). Holotypes designated from WIBF material are deposited in the NMNH.
ZMUC – Natural History Museum of Denmark, University of Copenhagen (Alexey Solodovnikov, Kenneth Puliafico).

ZSMG – Zoologische Staatssammlung, Munich, Germany (Ditta Amran Balke).

METHODS

Morphological characters of adult specimens are the basis of this revision. A species is assumed to be the smallest group of lineages or populations that are diagnosable by a unique combination of inheritable characters. This phylogenetic species concept follows Wheeler and Platnick (2000). Initially specimens were separated by geography, in this case islands or island banks, then compared to other populations to look for distinct characteristics that would reliably distinguish separate species and delimit variation within a species.

Examination of some morphological structures can be difficult initially as specimens of *Diastolinus* are often encrusted in debris and/or waxy secretions. To properly view external morphological structures, select specimens, especially those used in photos, were relaxed and cleaned following Ivie (2002). The specimen was first placed in hot water for 5-10 minutes to relax it. After relaxation, specimens were placed in ammonium hydroxide solution (Parsons'® household ammonia) in an ultrasonic cleaner in for 5-15 minutes, then neutralized with a distilled water rinse. Remaining debris was carefully scraped away with either a minutin pin or a fine brush to enhance the visibility of morphological characters.

Specimens used for dissections of male genitalia were similarly relaxed in hot water. Then the abdomen was removed so that the aedeagus could be safely extracted. Dissected parts were either glued to cards which were then placed on the pin under the

specimen and above locality labels, or stored in glycerin in a plastic genitalia vial placed on the pin above the determination label.

Specimens were studied on a Leica® Wild M3C stereoscope equipped with an LED ring light. Photographs were taken with a JVC® KY-F75U digital camera attached to a Leica® MS5 stereomicroscope, processed with Synchroscopy Automontage®, and modified in Adobe Photoshop® CS6 and Adobe Illustrator® CS6. Illustrations were made with a camera lucida attached to a Wild® TYP 181300 stereomicroscope.

A red label with the typed words 'HOLOTYPE' on top, the species name in the middle, and 'Hart and Ivie 2016' at the bottom were added to each holotype. Paratypes were labeled similarly, except 'PARATYPE' on a blue label. A red label with the typed words 'LECTOTYPE' on top, the species name in the middle, and the respective author name at the bottom were added to each lectotype. Paralectotypes were labeled similarly, except 'PARALECTOTYPE' on a blue label.

Distribution records are summarized under "Distribution" in the order used by Blackwelder (1944), basically north to south, with additions of islands not mentioned there. New island records are indicated with an "*" and followed by the repository for the voucher in parentheses. Small cays that can be confused with others with the same name have the larger island associated with it in parenthesis [i.e "Buck Is. (St. Croix)" vs. "Buck Is. (St. Thomas)]." Label data are recorded following the convention of Ivie (1985) with lines separated by a semicolon (;) and labels by a slash (/).

Taxonomy of *Diastolinus*

Diastolinus Mulsant and Rey

Diastolinus Mulsant and Rey 1859: 74; 1860: 138. Type species: *Blaps clathrata* Fabricius, 1792, subsequent designation (Lucas 1920: 236). Gebien 1938: 294 [413]. Marcuzzi 1986: 179. Marcuzzi 1989: 355. Marcuzzi 1998: 153.

Sellio Mulsant and Rey 1859: 105; 1860: 169. Type species *Blaps tibidens* Quensel, 1806 by subsequent designation of Gebien 1938: 407 [444].

Ctesicles Champion, 1896: 7. Type species *Ctesicles insularis* Champion, 1896 by subsequent designation of Lucas (1920). Gebien 1938: 401 [438].

Diagnosis. As redefined by Ivie and Hart (2016) this genus can be recognized and separated from other "blapstinoids" by a combination of the elytra fused together in fully developed specimens; the elytral stria are strongly punctate and impressed; the elytra have the anterior end of stria 8 displaced laterad, ending at the lateral stria, cut off from the base of the elytra by stria 7 which also curves laterad and ends either at the humeral angle or on the lateral stria; the metathoracic wings are reduced or absent; the metaventrite is very short, usually shorter than mesocoxal cavity; ventrite 1 immediately behind the metacoxa is modified with a row of greatly enlarged deep pits, and the aedeagus is strongly arched in lateral view. The parameres are highly variable in dorsal view but are of the never truncate/flared type. Additionally the genus can be separated from *Goajiria* because the male profemur is usually not armed, if so, the tooth is in the basal one third and the male mesofemur is without a setose patch below in the basal half.

Redescription. Length 4.8–10.6 mm, width 1.5–5.3 mm. Body (Fig. 1) black, except at least apical three antennomeres typically fuscus, sometimes entire antennae reddish-black, palps reddish-brown, sometimes tarsi reddish-brown (teneral individuals may be reddish-brown); typically matte, sometimes shining, but never metallic; body variously rounded laterally either as a whole or prothorax and elytra separately; body convex; glabrous or with golden or light colored erect setae.

Head (Fig. 2) small, somewhat trapezoidal, transverse, epistoma evenly convex or flattened, epistomal margin emarginate; variously punctate. Labrum visible dorsally; variously punctate; two tufts of golden setea on apical margin. Antennae (Figs. 2, 99) 11-segmented, weakly clavate to clavate. Eyes small; divided by genal canthus; dorsal and ventral portions of eye roughly equal in size, variable shape from perfectly rounded to ovate. Gula with transverse ridge at sides prolonged in to erect tubercles, with shape of horns, especially enlarged in some species.

Pronotum (Fig. 1) usually widened posteriorly, sometimes widest at middle; apical margin usually evenly, broadly emarginate; sides variable; basal width greater than or equal to humeri; basal margin bisinuate; dorsal surface typically broadly, evenly convex; all margins narrowly beaded, except usually obsolete at middle of anterior margin; typically punctate, punctation of variable size and density; variously setose. Hypomeron smooth to rugulose, variously punctate. Prosternal process variable in shape and length, punctate.

Scutellum (Fig. 4) variable, triangular or rounded, wider than long. Elytra (Fig. 2) fused together; humeral angles narrowed; sometimes constricted in anterior third of elytra

before humerus to less than basal width of pronotum; elytral striae 7 and 8 not both reaching base of elytra, anterior end of stria 8 curved laterad, ending at lateral stria, cut off from base of elytra by stria 7 which also curves laterad and ends either at humeral angle or at lateral stria; elytral stria variable from deeply impressed to effaced; typically strongly punctate; intervals usually convex.

Mesoventrite (Fig. 2) short, deeply impressed to receive prosternal process; variously punctate or rugulose or glabrous. Metathoracic wings extremely reduced or absent. Metaventrite (Fig. 2) short, usually equal to or shorter than mesocoxal cavity; typically with punctate anterior border behind mesocoxae.

Leg (Fig. 2) surfaces variably setose and punctate; relatively short. Femora sometimes swollen, bulging. Male profemur not armed, except rarely with small spine basally, male mesofemur without setose patch below in basal half. Protibia typically expanding gradually in distal two-thirds; surface with variable stout spines. Male protarsus with tarsomeres 1-3 expanded, tarsomere 2 widest, typically 1.5-2X width of tarsomere 4, ventrally with golden, densely setose pads; female protarus not expanded. Mesotarsus in male sometimes with tarsomeres 1-3 expanded or weakly expanded, ventrally with densely setose pads; female mesotarsus not expanded. Metatarsus narrow, without setose pads.

Abdominal ventrites variably punctate; male ventrites 1-3 typically slightly concave medially; female ventrites 1-3 slightly convex or flattened medially; anterior border of ventrite 1 with row of distinct heavy pits at anterior edge bordering posterior margin of hind coxae, sometimes punctures extending onto intercoxal process (sometimes ventrites

2 and 3 with similar punctation). Male aedeagus (Figs. 3, 7) with basal piece strongly arched in lateral view; parameres relatively stout, often curved and otherwise modified, never truncate/flared type; lateral margin of parameres straight or undulate; tips often upturned.

Larvae. Some larvae have been described, however we have not confirmed the association between the adult and larvae (Marcuzzi and Cravera 1981), and given the massive misidentifications discovered in Marcuzzi's work (Ivie and Hart 2016), none of these descriptions can be trusted to even belong to this genus.

Biology. *Diastolinus* are commonly collected under stones, driftwood and other debris in relatively dry habitats. It appears that the most common habits are seasonally dry tropical woodlands (scrub, forests, etc.) for *Diastolinus* species. Specimens have been found mostly by unspecified general hand collecting, though some have been taken in pitfall traps, leaf litter samples, under fallen vegetation such as cacti, or in booby nests. Collecting localities vary from low lying coastal thorn scrub, dunes and beaches at 0 m to 2100m above sea level in dry tropical forest.

Distribution. Species of *Diastolinus* are known from the Greater Antilles (Hispaniola, Puerto Rico, U.S. Virgin Islands, British Virgin Islands), and the Lesser Antilles (Sombrero to Grenada).

Recognition of Informal Species-Groups within *Diastolinus*

The members of *Diastolinus* currently recognized are diverse in form and size, however they can be separated into three informal species-groups that are useful in

discussing specimens. The “clathratus” species-group (Table 1) includes some of the oldest names originally associated with *Diastolinus*, including the type species of the genus. The “clathratus” species-group is distributed throughout Puerto Rico, the Virgin Islands, and the Northern Lesser Anitilles south to Dominica. The species in this group are oval in body shape, moderate to large in size (6.9 – 10.6 mm long), with the anterior one third of the elytra not constricted, the base of elytra equal to or sub-equal to the width to base of pronotum, and the male protibiae never armed.

The “sellio” species-group (Table 2) is distributed in southern Hispaniola, Puerto Rico, and the Virgin Islands. This species-group is small to large (6.1 – 10.6 mm in length) and characterized by the constriction of the anterior third of the elytra, anterior of the point where the 8th stria joins the lateral stria, to less than the basal width of the pronotum. The elytra may expand anterior of the constricted point to sub-equal the width of the posterior edge of the pronotum, or the posterior edge of pronotum is wider than the base of the elytra. The femora are typically swollen and clavate, especially in the male prolegs. The male protibiae are often armed with distinct a stout spine.

The “ctesicles” species-group (Table 3) is distributed in the Lesser Antilles from Martinique south to Grenada. They are small in size (4.8 – 6.5 mm in length) and are entirely covered in large evenly spaced punctures.

Key to the Species of *Diastolinus*

Note. Specimens should cleaned prior to using the key. Often *Diastolinus* are covered in greasy debris that may obscure characters from view. Recommended cleaning procedures

can be found in the introduction to the "Key to the families of beetles in America north of Mexico" (Ivie 2002).

1. Anterior third of elytra, anterior of the point where the 8th stria joins the lateral stria, constricted to less than the basal width of the pronotum (Figs. 30, 36, 61, 68), elytra sometimes slightly expanded anteriorly from constricted point to sub-equal the width of the posterior edge of the pronotum or the posterior edge of pronotum wider than the base of the elytra; femora typically swollen (Fig. 61), especially in male forelegs, somewhat less so in females. Hispaniola, Puerto Rico, Virgin Islands.....2

1'. Anterior third of elytra not constricted, base of elytra equal in width to base of pronotum (Fig. 1); femora not swollen. Puerto Rico, Virgin Islands, Lesser Antilles.....10

2. Elytra not distinctly costate (Fig. 56); interstria not convex; base of elytra, including humerus, much narrower than pronotum. Hispaniola.....3

2'. Elytra costate (Fig. 2), interstia convex; base of elytra sub-equal to pronotal width or if narrower, elytra with deep punctures. Hispaniola, Puerto Rico, Virgin Islands.....4

3. Upper surface dull with short yellowish pubescence (Fig. 56); elytra with strial punctation equal to interstrial punctation, punctuation dense, small and shallow; male foretibiae armed with multiple short teeth, not a single distinct spine (Fig. 57). Dominican Republic (Pedernales Prov.).....***D. gladiator***

3'. Upper surface shining, glossy, without setae (Fig. 68); elytra with large, deep strial punctuation, interstrial punctation minute and sparse; male foretibiae armed with a single distinct spine. Haiti.....***D. vaderi***

4. Upper surface covered in relatively long yellowish pubescence; elytral pubescence subequal to or longer than width of interstriae.....5

4'. Upper surface with few setae, setae if present, short and sparse; elytral pubescence, if present, less than half the width of interstriae.....7

5. Base of elytra sub-equal to width of pronotum (Figs. 30, 36); scutellum short, mostly hidden and crescent shaped if visible; body robust, very convex, and greater than 8.5 mm in length. Hispaniola.....6

5'. Base of elytra, including humerus, much narrower than pronotum (Fig. 63); scutellum large, distinct and triangular; body less robust, not as convex, less than 7.5 mm in length. Puerto Rico, Virgin Islands.....***D. tibidens***

6. Male foretibiae armed with a single distinct spine (Fig. 33); scutellum short, but visible and crescent shaped (Fig. 30); pronotum (Fig. 31) with long, dense yellow

setae greater than or sub-equal in length to elytral setae; punctation on pronotal disk typically spaced greater than the diameter of a puncture apart. Dominican Republic (Azua Prov.) .....***D. azuaensis***

6'. Male foretibiae unarmed; scutellum very short, mostly hidden (Fig. 36); pronotum with shorter setae than elytral setae; punctation on pronotal disk typically spaced less than or equal to the diameter of a puncture apart (Fig. 37). Dominican Republic (Pedernales Prov.)..... ***D. coarctatus***

7. Pronotum with sub-rugose, sometimes confluent punctures on the pronotum antero-lateral of the disc (Fig. 52); male foretibiae armed with a single distinct spine (Fig. 51). Dominican Republic (Pedernales Prov.).....***D. espoloni***

7'. Pronotum with punctures normal, not sub-rugose and distinctly separate; male foretibiae unarmed. Puerto Rico and satellite islands.....8

8. Abdominal ventrites nearly glabrous, with at most a few white or clear setae; gular horn normal. Body less than 9 mm in length (Fig. 46, 48). Puerto Rico.....***D. doyeni***

8'. Abdominal ventrites with some yellow setae; gular horn large and prominent. Body greater than 9.3 mm in length.....9

9. Elytra with strial punctuation relatively shallow (Fig. 41); anterior margin of the pronotal bead complete (Fig. 100); body somewhat oblong; punctation on abdominal ventrites 2 and 3 shallow (Fig. 43); male genitalia: parameres not spade shaped, gently tapering distally (Figs. 44, 45). Puerto Rico (Desecheo Island).....***D. desecheo***

9'. Elytra with strial punctuation deeper (Fig. 73); anterior margin of the pronotal bead obsolete medially (Fig. 101); body elongate; punctation on abdominal ventrites 2 and 3 larger and deeper (Fig. 77); male genitalia: parameres spade shaped, suddenly tapering distally (Figs. 78, 79). Puerto Rico (main island and southern satellite islands)..... ***D. victori***

10. Entire body surface, dorsal and ventral, entirely covered in large, evenly spaced punctures (Figs. 80, 86, 92); upper surface covered with yellow pubescence; body less than 7 mm in length (typically 4.8 to 6.5 mm). Southern Lesser Antilles (Martinique, St. Lucia, St. Vincent, Grenada).....11

10'. Dorsal surface of pronotum and ventral surface of the body not entirely covered in large, evenly spaced punctures (Figs. 24, 28), punctuation small, sparse or minute on ventrites especially, dorsal surface variable; upper surface with few setae; body greater than 6.9 mm in length (typically greater than 7.8 mm). Puerto Rico, Virgin Islands, northern Lesser Antilles south to Dominica.....13

11. Strial puncation deeply impressed with punctures commonly interrupting and overflowing onto the interstria (Figs. 86, 88, 92, 94). St. Vincent, Grenadines, Grenada.....12

11’. Strial puncation shallower, punctures rarely interrupting and overflowing onto the interstria (Figs. 80, 82). Martinique, St. Lucia.....***D. hoppae***

12. Elytra strongly costate, intervals narrow and somewhat shining, punctation very heavily impressed (Figs. 87, 88); lateral margin of pronotum somewhat angular; male genitalia: parameres with nearly straight apical margin (Fig. 90). St. Vincent.....***D. insularis***

12’. Elytra weakly costate, intervals broad and opaque, punctation not as heavily impressed (Figs. 93, 94); lateral margin of pronotum evenly rounded; male genitalia: parameres rounded at apex, with the apical margin weakly emarginate (Fig. 96). Grenada, Grenadines (Mustique).....***D. maritimus***

13. Pronotal disc covered with many short erect setae, usually yellowish, at least 1-2X length of the diameter of pronotal punctation (setae rarely worn off of the pronotal disc, but remain visible on the lateral edges of the pronotum) (Figs. 16, 20). Puerto Rico, St. Croix, Saba, St. Eustatius, St. Kitts, Nevis, Barbuda, Antigua, Montserrat, Redonda.....14

13’. Pronotal disc not apparently setose, laterally some short setae about 1X length of puncture diameter (Figs. 8, 12, 24). Puerto Rico, Mona, Virgin Islands (except St. Croix), Sombrerro, Anguilla Bank, Guadeloupe, Dominica.....18

14. Elytra glossy, shining; some strial punctures confluent; body shape oval (Fig. 1). St. Croix.....***D. clathratus***

14’. Elytra matte black, not shining (Figs. 16, 20); strial punctures separate and distinct; body somewhat narrower and more parallel sided. Puerto Rico, Saba, St. Eustatius, St. Kitts, Nevis, Barbuda, Antigua, Montserrat, Redonda.....15

15. Lateral edges of pronotum evenly rounded (Figs. 16, 20); widest point appearing anterior of hind angles; typically two or fewer punctures evident on the sutural stria just posterior to the scutellum (specimens must be clean); gular horn small, less prominent. Saba, St. Eustatius, St. Kitts, Nevis, Barbuda, Antigua, Montserrat, Redonda.....16

15’. Lateral edges of pronotum widened posteriorly (Figs. 42, 75); widest point apparently at hind angles; typically three or more punctures evident on the sutural stria just posterior to the scutellum (specimens must be clean); gular horn large and prominent (Fig. 76). Puerto Rico (and satellite islands).....17

16. Elytra with dense long, typically yellowish setae; male genitalia: parameres tapering gradually distally (Figs. 20-23). Redonda.....***D. shieli***

16’. Elytra with short, sparse, typically white or clear setae; male genitalia: parameres tapering at a sharper angle distally (Figs. 16-19). Saba, St. Eustatius, St. Kitts, Nevis, Barbuda, Antigua, Montserrat.....***D. leewardensis***

17. Elytra with strial punctuation relatively shallow (Fig. 41); anterior margin of the pronotal bead complete (Fig. 100); body somewhat oblong; punctation on abdominal ventrites 2 and 3 shallow (Fig. 43); male genitalia: parameres not spade shaped, gently tapering distally (Figs. 44, 45). Puerto Rico (Desecheo Island).....***D. desecheo***

17'. Elytra with strial punctuation deeper (Fig. 73); anterior margin of the pronotal bead obsolete medially (Fig. 101); body elongate; punctation on abdominal ventrites 2 and 3 larger and deeper (Fig. 77); male genitalia: parameres spade shaped, suddenly tapering distally (Figs. 78, 79). Puerto Rico (main island and southern satellite islands)..... ***D. victori***

18. Legs robust, metatarsus expanded, tarsomere 1 less than 1.5X length of tarsomere 2 (Fig. 27); abdominal ventrites 2 and 3 often without a row of distinct heavy punctures at the anterior edge of the ventrite, instead with at most one or two shallow punctures near the lateral edge of the ventrite (Fig. 28). Sombrerro, Anguilla Bank (Anguilla, St. Barths, St. Martin).....***D. perforatus***

18'. Legs gracile, metatarsus not expanded, tarsomere 1 more than 2X length of tarsomere 2; abdominal ventrites 2 and 3 with a row of distinct heavy punctures at the anterior edge of the ventrite (Fig. 9, 13). Puerto Rico, Mona, Virgin Islands (excluding St. Croix), Guadeloupe, Dominica.....19

19. Abdominal ventrites with regularly spaced punctures (besides row of anterior punctures) and yellowish setae; male genitalia: parameres broadly rounded distally and with a weakly sinuate lateral margin (Figs. 10, 11). Guadeloupe, Dominica.....***D. chalumeaui***

19'. Abdominal ventrites with sparse, tiny punctures (besides row of anterior punctures) and very few white or clear setae; male genitalia: parameres tapering almost to a point distally and with a straight lateral margin (Figs. 15, 15).Puerto Rico, Mona, northern Virgin Islands (excluding St. Croix).....***D. clavatus***

"clathratus" Species-Group

Diagnosis. This species-group can be distinguished by the combination of the oval body shape, their moderate to large in size (6.9 – 10.6 mm long), the anterior one third of the elytra not constricted, the base of elytra equal to or sub-equal to the width to base of pronotum, and the male protibiae never armed. The "clathratus" species-group is

distributed throughout Puerto Rico, the Virgin Islands, and the Northern Lesser Anitilles south to Dominica (Fig. 108).

Diastolinus clathratus **(Fabricius)**

(Figs. 1 - 7, 111)

Blaps clathrata Fabricius, 1792: 109 (Type Locality St. Croix).

Diastolinus clathratus; Mulsant and Rey 1859: 74; 1860: 138 (Amérique méridional). Gebien 1938: 294 [413] (Cayenne, mistake). Blackwelder 1945: 524 (French Guiana, mistake). Marcuzzi 1957: 128 (in part, St. Croix records only); 1962: 27 (in part, St. Croix records only). Marcuzzi and D'Aguilar 1971: 80 (in part, St. Croix records only). Marcuzzi 1977: 13 (in part, St. Croix records only);1984: 77 (in part St.Croix records only).

Diastolinus (*Diastolinus*) *clathratus*; Marcuzzi 1986: 179.

Diastolinus sallei; Marcuzzi 1957: 128 (in part, St. Croix records only).

Diastolinus perforatus; Marcuzzi 1962: 27 (in part, St. Croix records only). Marcuzzi and D'Aguilar 1971: 80 (in part, St. Croix records only). Marcuzzi 1977: 19 (in part, St. Croix records only); 1984: 78 (in part, St. Croix records only). Peck 2011a: 33 (in part, St. Croix records only); 2011b: 29 (in part, St. Croix records only). Peck *et al.* 2014: 84 (in part, St. Croix records only). Peck 2016: 160 (in part, St. Croix records only).

Type Material. Type in ZMUC (examined). (Figs. 1, 2, 6).

Other Material Examined. F5018; St. Croix, V.I.; III. 1. 1925 (2 AMNH). F5012; St. Croix, V.I.; II. 26. 1925 (4 AMNH). F5021; St. Croix, V.I.; III. 4. 1925 (2 AMNH). F5016; St. Croix, V.I.; II. 28. 1925 (1 AMNH). F5148F; St. Croix, V.I.; IV. 7. 1925 (3 AMNH). F5149F; St. Croix, V.I.; IV. 8. 1925 (1 AMNH). St. Croix/ Diastolinus; clathratus F. (1 NHMB). Mus. Western/ American; Isles; Clathratus Fabr. (2 ZMUC). St. Croix; Eqqers. (2 ZMUC). St. Croix/ Mus. Western/ Clathra; tus Fab.; St. Croix/ Diastoli; nus; Mulsant (1 ZMUC). Crawford Exp. St. Croix; W.I.; 1904-156/ Diastolinus; perfortus (1 BMNH). 612; St. Croix/ Brit. Mus.; 1973-207/ Diastolinus; clathratus/ Agrees with photo in; Marcuzzi 1962 plate I.; M.J.D. Brendell 1975 (1 BMNH). VIRGIN IS: St. Croix; Christiansted; Spring Gut; 15 FEB 1983, J. A. Yntema; under trash (34 WIBF). VIRGIN IS: St. Croix; Cotton Garden; 02MAR1995 (1 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 340 ft; 08 FEB- 01 MAR 1994; J. Keularts colr.; flt. Int. trap #15 (2 WIBF). VIRGIN IS: St. Croix; Est. Cotton Grove; East End; 02 MAY 1995; M.A. Ivie colr (2 WIBF). VIRGIN IS: St. Croix; Est. La Pres Vallee; 200 ft, 03 OCT 1987; M.A. Ivie, litter; under large trees (2 WIBF). VIRGIN IS: St. Croix; Est. A Piece of Land; East End, 09JAN1993; VIBFP colrs (14 WIBF). VIRGIN IS: St. Croix; Est. Jerusalem &; Figtree Hill, MARCH; 1993. B.Wilhelm col (3 WIBF). VIRGIN IS: St. Croix; Est. A Piece of Land; NW of Pt. Udall; 11JAN1993, R.S. Miller; on beach (1 WIBF). VIRGIN IS: St. Croix; Est. A Piece of Land; NW of Pt. Udall; 11JAN1993, D.S. Sikes; wrack & beach litter (11 WIBF). VIRGIN IS: St. Croix; Butler Bay Beach; 10JAN1993, s.l.; D.S. Sikes colr.; beach wrack (1 WIBF). VIRGIN IS: St. Croix; Est. Fountain, upper; Fountain Valley, 350ft; 07JAN1993. R.S. Miller; on ground at night (5 WIBF). VIRGIN IS: St.

Croix; Estate Cotton Garden; nr. S.E.T.I. Station; 11JAN1993. D.S. Sikes; grass/xeric litter (1 WIBF). VIRGIN IS: St. Croix; Estate Cotton Garden; S.E.T.I. Station; 11JAN1993. D.S. Sikes; deciduous litter (3 WIBF). VIRGIN IS: St. Croix; Estate Cotton Garden; S.E.T.I. Station; 12JAN1993. at night; D.S. Sikes colr (5 WIBF). VIRGIN IS: St. Croix; Estate Cotton Garden; S.E.T.I. Station; 12JAN1993. R.S.Miller; night collecting (1 WIBF). VIRGIN IS: St. Croix; Est. Cotton Garden; nr. Sugarloaf Hill; 11JAN1993, D.S. Sikes (9 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 06JAN-23FEB1993; J. Keularts colr.; flt. int. trap #15 (3 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 23FEB-17MAR1993; J. Keularts colr.; flt. int. trap #15 (1 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 23MAR-20APR1993; J. Keularts colr.; flt. int. trap #15 (1 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 20APR - 19MAY1993; J. Keularts colr.; flt. int. trap #15 (2 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 19MAY-18JUN1993; J. Keularts colr.; flt. int. trap #15 (8 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 18JUNE-19JULY1993; J. Keularts colr.; flt. int. trap #15 (2 WIBF). VIRGIN IS: St. Croix; Est. Fountain. 350 ft; 19JULY-23AUG1993; J. Keularts colr.; flt. int. trap #15 (1 WIBF). VIRGIN IS: St. Croix; Est. North Hall. Creque; Gut. 100ft, 19MAY-18JUN1993; J. Keularts colr.; flt. int. trap #8 (1 WIBF). VIRGIN IS: St. Croix; Est. Carlton. Carlton; Beach. 10JAN1993. s.l.; R.S. Miller & D.S.; Sikes. beach wrack (3 WIBF). VIRGIN IS: St. Croix; Est. Stony Ground; Sandy Pt. 10JAN; 1993. at night; D.S. Sikes colr (1 WIBF). VIRGIN IS: St. Croix; Est. Caledonia. 0.7 mi; E. Rt. 63. 10JAN1993; R.S. Miller.beat veg. (1 WIBF). VIRGIN IS: St. Croix; Est. Mt.Roepstorff &; Southgate Farm. s.l.; Chenay Bay, 11JAN1993; R.S. Miller & D.S. Sikes (1 WIBF).

VIRGIN IS: St. Croix; Est. Caledonia. Rt.78; S. of Hams Bluff; 10JAN1993. Litter; D.S. Sikes colr (1 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08JAN 1993. general; coll. VIBFP colrs (9 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08JAN 1993. deciduous; litter. VIBFP colrs (2 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08-29 JAN 1993; flight intercept#15; 340ft., Z. Hillis (1 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 01-31MAR 1993; flight intercept#15; 340ft., Z. Hillis (9 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; JULY-AUGUST 1993; flight intercept#15; 340ft., Z. Hillis (4 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. M.; 27 JULY 1994, 140ft; M.A. Ivie &; Z.M. Hillis; site#14 (5 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; AUG-08SEP 1994; Z.M. Hillis colr.; flight intercept#14 (15 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08JAN 1993. VIBFP colrs; litter under cactus; and bromeliads (2 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; SEP-10 OCT 1993; Z.M. Hillis colr.; flight inter. tr.#14 (15 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08SEP 1994; Z.M. Hillis colr. (8 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; MAY-JUNE 1993; flight inter. tr.#14; 140 ft, Z.M. Hillis colr.; (3 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; Northside, trail; 09 AUG 1996; Z.M. Hillis, F.I.T. (59 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08NOV1994; flight intercept#15; 340ft., Z.M. Hillis (3 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 30 MAR-29 JUNE 1995; flight intercept#15; 340ft., Z.M. Hillis (1 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 19JAN-30 MAR 1995; flight intercept#15; 340ft., Z.M. Hillis (4 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 28 NOV 1995; Z.M. Hillis colr. (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 28 NOV 1995, F.I.T.; Z.M. Hillis colr. (1 WIBF). VIRGIN

IS: Buck Is.; B.I. Reef Nat. Mon; on Ridge Trail; 25 AUG 1995, M.A.; Ivie & M. Dunnington (5 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; trail at 340'; 25 AUG 1995, uv light; Berlese under Bursera (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 24AUG – 11 OCT 1995; Z.M. Hillis colr.; flight intercept trap (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 11 OCT 1996; A. C. Poponi colr; F.I.T. (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; North side trail; 23 AUG 1996; A. C. Poponi, F.I.T. (5 WIBF).

Diagnosis. This species can be distinguished from other species by the combination of the shining, glossy elytra with humeral angles wider than the posterior width of the pronotum and some confluent strial punctures.

Redescription (male). Length 7.2–9.2 mm, width 3.3–4.3 mm. Body (Fig.1) black, except last three antennomeres testaceous, sometimes last antennomere almost golden (dependent on preservation); shining on elytra and ventral surface, matte head and pronotum; ovate-oblong; widest at middle, moderately convex; scattered white to golden setae typically short (at least dorsally).

Head (Fig.2) with epistoma evenly convex; punctures sub-equal to diameter of ommatidia covering dorsal surface, evenly spaced, separated by 1-2X puncture diameter; setae 2X length of punctures. Labrum densely punctate. Antennae clavate. Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Figs.1, 4) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior two-fifths, then sides nearly parallel to base; basal width sub-equal to humeri; basal margin bisinuate;

dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; minutely punctate, puncture diameter half that of punctures on head, spaced 2-4X diameters of puncture apart on pronotal disc; setae typically rubbed off pronotal disc, fine light color setae typically 2X puncture diameter in length remain at least laterally. Hypomeron feebly rugulose, punctate shallowly and sparsely. Prosternal process tongue-like, punctate, with yellowish semi-erect setae at least 2X length of puncture diameter.

Scutellum (Fig.4) small, triangular, slightly wider than long. Elytron (Fig. 1) gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; strial punctures deep and sometimes confluent; intervals convex, punctation minute, even. Seventh stria (Fig. 2) ending in lateral stria slightly posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite (Fig. 2) short, punctate anterior border behind mesocoxae.

Leg (Fig. 2) surfaces setose and finely punctate. Protibia narrow, expanding gradually in distal two-thirds; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about two-thirds as long as metatibia, without setose pads; first tarsomere more than 2X length of second.

Abdominal ventrites finely punctate; ventrites 1-3 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process; ventrites 2 and 3 laterally with row of heavy punctures on anterior edge, indistinct on medial concavity; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Figs. 3, 7) with basal piece and parameres strongly arched, less than one-third of elytral length; parameres widest basally, narrowed apically; parameres with straight lateral margin, chisel-like, not undulate or with upturned tips in lateral view.

Female. Length 7.2–10.6 mm, width 4.5–5.3 mm. Similar to male except body typically larger, more robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex or flattened medially; ventrite 5 slightly convex.

Biology. Adults, at least females, seem to be present year round (label records from every month except April and December). Adults have been recorded from deciduous litter, litter under cactus and bromeliads, beach litter, beach wrack, and under trash. They have been collected at night on the ground as well as from flight intercept traps (FIT) and Berlese samples. Specimens have been found at elevations ranging from 0-106 m above sea level.

Distribution. St. Croix, Buck Is* (St. Croix, WIBF) (Fig. 111).

Diastolinus chalumeaui Hart and Ivie, New Species

(Figs. 8-11, 112)

Diastolinus perforatus; Mulsant and Rey 1859: 77; 1860: 141 (in part, Guadeloupe records only); Fleutiaux and Sallé 1889: 421 (Terre-de-Haut, as Le Saintes). Blackwelder 1945: 524 (in part, Guadeloupe records only). Marcuzzi 1957:128 (in part, Guadeloupe records only); 1962: 27 (in part, Guadeloupe, records only). Marcuzzi and D'Aguilar 1971: 80 (in part, Guadeloupe, Les Saintes records only). Marcuzzi 1977: 19 (in part, Les Saintes, La Désirade, Guadeloupe, records only). Chalumeau 1982: 192 (Marie-Galante); 1984: 78 (in part, Guadeloupe records only). Peck 2011a: 33 (in part, Guadelouple, Les Saintes, La Désirade, Marie-Galante records only); 2011b: 29 (in part, Guadelouple, Les Saintes, La Désirade, Marie-Galante records only). Peck *et al.* 2014: 84 (in part, Guadelouple, Les Saintes, La Désirade, Marie-Galante records only). Peck 2016: 160 (in part, Guadelouple, Les Saintes, La Désirade, Marie-Galante records only).

Diastolinus sallei; Leng and Mutchler 1914: 460 (in part, Guadeloupe records only). Marcuzzi 1957: 128 (in part, Dominica records only); 1962: 25 (in part, Dominica records only); 1977: 22 (in part, La Désirade, Dominica records only); 1984: 78 (in part, Dominica records only). Peck 2006: 189 (in part, Dominica records only); 2011a: 33 (in part, Dominica, La Désirade records only). Peck *et al.* 2014: 84 (in part, Dominica, La Désirade records only). Peck 2016: 160 (in part, Dominica, La Désirade records only).

Diastolinus puncticollis Marcuzzi 1977: 22 (in part, Marie-Galante records only). Peck 2011a: 33 (in part, Marie-Galante records only). Peck *et al.* 2014: 84 (in part, Marie-Galante records only). Peck 2016: 160 (in part, Marie-Galante records only).

Diastolinus sp.; Marcuzzi 1983: 246 (male genitalia, La Désirade).

Although there is an extensive literature referring to this species, all are misidentifications, and the species lacks a valid name. None of the three species with records for Guadeloupe and Dominica actually occur on these islands.

Type Material. HOLOTYPE: Male. GUADELOUPE: Gran-Terre; Anse de Tarare, 0-20m; 16° 15.242'N, 61° 11.901'W; 20 AUG 2005, M.A. Ivie; coastal scrub/ WIBF 035582 (from WIBF, deposited in NMNH). PARATYPES (18 specimens): 5 females and 10 males sharing the same label data as the Holoytype (WIBF 035386 – 035387, WIBF 035583 – 035595). Guadeloupe; Anse-à-l'Eau/ 11.2.78; F. Chalumeau (1 female and 2 males, WIBF 036172 – 036174, from HNHM).

Other Material Examined. GUADELOUPE: Gran-Terre; Anse de Tarare, 0-20m; 16° 15.242'N, 61° 11.901'W; 20 AUG 2005, M.A. Ivie; coastal scrub (1 WIBF, disarticulated). GUADELOUPE:; Petite Terre Islands; Is. Terre de Bas; 16° 10'N, 61° 07'W; 25 AUG 2003, J. Touroult (3 WIBF). Acc. 4860; Gourbeyre; Guadeloupe (3 AMNH). GUADELOUPE; Marie Galante Isl.; around Grand-Bourgh; 15° 56'N, 61° 16'W; 30.IX.2007; leg. Tomáš Pavliček (5 MLPC). Terre de Haut; Les Saintes/ 28-VII-1945; HStehle/ 1023 (1 NMNH). Guade.; loupe/ C.O. Lovin (4 NHMB). Guadeloupe; coll. R. Oberthür; ex coll. Deyrolle/ puncticeps M&R ?; det. Kaszab (2 HNHM). Guadeloupe; Anse-à-l'Eau; 11.II.78; F. Chalumeau (9 OSUC). Guadeloupe; 16.3.78; F.

Chalumeau (4 HNHM). Guadeloupe; Ilet Pigeon/ 21.6.78; F. Chalumeau (6 HNHM). Guadeloupe; Ilet Pigeon/ 29.1.78; F. Chalumeau (7 HNHM). Guadeloupe; Ilet Pigeon; 2-V-78; F. Chalumeau (6 OSUC). Guadeloupe; Ilet Pigeon; 29-I-78; F. Chalumeau (4 OSUC). Guadeloupe; Petite-Terre; 26-III-78; F. Chalumeau (12 OSUC). Marie-Galante; Pointe-Pisiou; 4-II-78; F. Chalumeau (8 OSUC). Guadeloupe; Anse Lagourde; 20-I-73; F. Chalumeau (1 OSUC). LESSER ANTILLES; Dominica; The Cabrits; 24 MAR 1966; D. E. Johnston/ ex stonework (4 WIBF). WEST INDIES: Dominica; Batalie Beach: 1m; 15.4535°N, 61.4467°W; 30MAY2011, sandwashing (1 WIBF).

Diagnosis. This species can be distinguished by the combination of the base of the pronotum sub-equal to the humerus, the matte dorsal surface, the dorsal surface without apparent setae, the gracile legs with a narrow metatarsus, tarsomere 1 more than 2X length of tarsomere 2, the regularly finely punctate abdominal ventrites, the abdominal ventrites 2 and 3 with a row of distinct heavy punctures at the anterior edge of the ventrite, and the male genitalia with the parameres slightly widened from base then broadly rounded distally.

Description (male). Length 7.0–8.1 mm, width 3.0–3.7 mm. Body (Fig. 8) black, except antennae typically pitchy red, last three antennomeres mostly testaceous; matte surface; ovate-oblong; widest at middle, convex; dorsal surface sparsely setose, ventral surfaces covered in very short light colored setea.

Head with epistoma evenly convex; punctures less than diameter of ommatidia covering dorsal surface, separated by 1-2X puncture diameters except spaced less than 1X puncture diameter apart on anterior margin. Labrum densely punctate. Antennae

clavate. Dorsal and ventral portions of eye roughly equal in size, dorsal portion perfectly circular, ventral portion somewhat ovate. Gular horns short, not prominent.

Pronotum (Fig. 8) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior two-fifths, then sides sub-parallel to base; basal width sub-equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; finely punctate, puncture diameter half that of punctures on head, spaced 2-3X diameters of puncture apart on pronotal disc. Hypomeron rugulose, almost impunctate. Prosternal process lanceolate, shallowly punctate, rarely with light colored semi-erect setae 2X length of puncture diameter.

Scutellum (Fig. 8) small, rounded, about 2X wider than long. Elytron (Fig. 8) gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; strial punctures deep, not confluent; intervals broadly convex, punctation minute, even. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite weakly rugulose, shallowly punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg surfaces finely punctate. Femora somewhat clavate; profemora expanded. Protibia narrow, expanding gradually in distal three-fourths; dorsolateral margin slightly arcuate; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus and metatarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 1.5X width of

tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about three-fourths as long as metatibia, without setose pads; first tarsomere more than 2X length of second.

Abdominal ventrites (Fig. 9) finely, evenly punctate; ventrites 1-3 slightly concave or flattened medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures; ventrites 2-3 with row of punctures at anterior border of ventrite, not apparent mesally, weak longitudinal strioles sometimes follow; ventrite 5 flattened medially, finely punctate, posterior margin evenly rounded. Aedeagus (Fig. 10, 11) with basal piece and parameres strongly arched, slightly less than one-half of elytral length; parameres widened slightly from base, broadly, evenly rounded just before apex, apical margin rounded not straight; parameres with slightly sinuate lateral margin, with upturned tips in lateral view.

Female. Length 7.0–8.7mm, width 3.2–4.0 mm. Similar to male except body more robust and convex than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 convex; ventrite 5 slightly convex.

Biology. Adults have been recorded from coastal scrub, under stones and from sandwashing. It has been found from sea level to 20m.

Distribution. Basse-Terre, Grande Terre, Ilet de Pigeon* (HNHM, OSUC), Terre-de-Haut, La Désirade, Petite-Terre* (OSUC), Marie-Galante, Dominica (Fig. 112).

Etymology. This species is named for Fortuné Chalumeau, who collected many examples of this new species and provided extensive assistance to MAI on West Indian Coleoptera.

Diastolinus clavatus Mulsant and Rey

(Figs. 12-15, 98, 99, 101-107, 111)

Diastolinus clavatus Mulsant and Rey, 1859: 91; 1860: 155 (Type Locality St. Thomas). Leng and Mutchler 1914: 460 (St. Thomas). Gebien 1938: 295 [414] (St. Thomas). Blackwelder 1945: 524 (St. Thomas). Marcuzzi 1957: 128 (St. Thomas, Mona); 1977: 13 (in part, St. Thomas, Puerto Rico, Mona records only); 1984: 77 (St. Thomas); 1998: 154. Garrido 2002: 38 (St. Thomas, Mona, Monito); 2003: 27 (Mona, Monitos [*sic*]). Valentine and Ivie 2005: 279 (Guana). Peck 2011a: 33 (in part, Mona, Guana, Puerto Rico, St. Thomas records only); 2016: 159 (in part, Mona, Guana, Puerto Rico, St. Thomas records only).

Diastolinus (*Diastolinus*) *clavatus*; Marcuzzi 1986: 179.

Diastolinus hummelincki Marcuzzi, 1962: 28 (Type Locality: St. John, here restricted by Lecotype designation. Also recorded from St. Thomas. Martinique records here excluded) [junior primary homonym of *Diastolinus hummelincki* Marcuzzi, 1949 and 1950]. **New Synonymy.**

Marcuzzi did not designate a holotype for *Diastolinus hummelincki*, only a series of syntypes, and, as was often the case with Marcuzzi, he did not label the types as such. Further, especially in the case of material from Wagenaar Hummelinck, he often did not fully label the specimens, using abreviated data from the station numbers on the actual labels, but reporting Wagenaar Hummelinck's (1982) full collection localities in the actual publication. This practice has resulted in syntypes often being mixed in with general material, as is the case in the three (out of 20) syntypes examined. Marcuzzi

(1962) published the label data for a series of 13 syntypes as "St. John: Chocolate Hole, Sta. 618, 19.VI.1955." A specimen (female, HNHM) clearly from this series actually bears a locality label written in Marcuzz's hand that reads "618/ St. John, 19.VI.1955; Chokolat Hole; P.W. Hummelink." A second specimen (female, HNHM) from this series bears the locality label "St. John; 1955. Sta.618" possibly in P. Wagenaar Hummelinck's hand. These two specimens have an additional determination label of "*Diastolinus mulsanti* Marc; det. Marcuzzi," with the "*Diastolinus*" left off the first. The first of these is hereby designated **Lectoype**, the second a **Paralectotype**, and they are so labeled. A third syntype (female) in the BMNH is labeled "St. Thomas (W.I.); 17.VI.55; leg. Hummelinck/ Brit.Mus; 1958-136./*Diastolinus perforatus*; sen. m./ *Diastolinus hummelincki* Marc.; M.J.D. Brendell det. 1981." The first and third labels are written in Marcuzzi's hand. This specimen is also designated a **Paralectotype** (BMNH). This specimen is the voucher for Marcuzzi's (1957) record of *D. perforatus* from St. Thomas. The association is also evidence for the misidentification of the St. John record for *D. perforatus*.

Diastolinus mulsanti Marcuzzi and D'Aguilar, 1971: 79. [Replacement name for *Diastolinus hummelincki* Marcuzzi, 1962: 28, not 1949 or 1950.]. Marcuzzi 1977: 19 (in part, St. Thomas, St. John records only); 1983: 246 (male genitalia, St. Thomas); 1984: 77 (in part, St. Thomas, St. John, records only); 1998: 154. Peck 2011b: 29 (in part, St. John, St. Thomas records only). Peck 2016: 159 (in part, St. John, St. Thomas records only). **New Synonymy.**

Diastolinus (*Diastolinus*) *mulsanti*; Marcuzzi 1986: 179.

Diastolinus perforatus; Marcuzzi 1957:128 (in part, St. John, St. Thomas records only). *Diastolinus fuscicornis*; Garrido 2002: 38 (not Chevrolat 1877) (Mona); 2003: 27 (Mona). Peck 2005: 152 (no records, apparently a *lapsis calami*).

Type Material. *D. clavatus* types not examined, said to be in the Chevrolat collection, but not found in the BMNH (M. Barclay, in lit.), nor the Mulsant and Rey collection in Lyon (H. Labrique in. lit.). Possibly in the Obenthur collection in MNHN. *Diastolinus hummelincki* Marcuzzi Lecotype designated above (HNHM).

Other Material Examined. VIRGIN IS: St. John; Est. Lameshur Bay; Europa Bay Trail; 14 JULY 1994; M. S. Becker colr. (73 WIBF). VIRGIN IS: St. John; Estate Lameshur Bay; Europa Bay Trail; 20 JULY 1994, M. S. Becker; berlese leaf litter (1 WIBF).VIRGIN IS: St. John; Estate Lameshur Bay; Europa Bay Trail; 25 JULY 1994, under; rocks, M. S. Becker colr. (18 WIBF). VIRGIN IS: St. John; Estate Concordia; Ramshead Pt. Trail; 18-19JULY1994, leaf; litter, M.S. Becker (1 WIBF). VIRGIN IS: St. John; Estate Concordia; Saltpond Bay; 18JULY1994; M.S. Becker, on beach (1 WIBF). VIRGIN IS: St. John; Ramshead Pt. Trail; 21JULY1994; M.S. Becker colr; berlese leaf litter (1 WIBF). VIRGIN IS: St. John; Annaberg ruins; 13 JUN 1980; litter along wall; W. B. Muchmore (1 WIBF). VIRGIN IS: St. John; Est. Hermitage; 03 MAY 1984, debris; under sheet metal; W. B. Muchmore colr. (3 WIBF). VIRGIN IS: St. John; Est. Hermitage; 03 MAY 1984, under; boards, W. B. Muchmore (8 WIBF). VIRGIN IS: St. John; Est. Hermitage, ruins; 04 MAY 1984, under; boards, W. B. Muchmore (2 WIBF). VIRGIN IS: St. John; Ram Head, pitfall; trap, 11 JAN-01 FEB; 1986, W. B. Muchmore (6 WIBF). VIRGIN IS: St. John; East End Qtr., Haulover; 05MAY1984, in &; around lg

tamarind; W. B. Muchmore colr (1 WIBF). VIRGIN IS: St. John; Ram Head, 11 JAN1986; litter & rotting; Melocactus; W. B. Muchmore colr. (2 WIBF). VIRGIN IS: St. John; Francis Bay, pitfall; trap, 19 JAN-02 FEB 1986; berm between pond &; bay, W. B. Muchmore (6 WIBF). VIRGIN IS: St. John; American Hill; 08 MAR 1985; W. B. Muchmore colr.; litter in ruins (1 WIBF). VIRGIN IS: St. John; Ram Head, nr. Point; 07 FEB 1986; W. B. Muchmore colr./ under rocks (2 WIBF). VIRGIN IS: St. John; Ram Head, nr. Point; 07 FEB 1987, under rocks/ colr. W. B. Muchmore (3 WIBF). VIRGIN IS: St. John; Est. Maho Bay; Maho Bay. 22JUNE1994; beach litter; M.S. Becker colr. (2 WIBF). VIRGIN IS: St. John; Est. Lameshur Bay; V.I.E.R.S. at light; 13 JULY 1994; M. A. Ivie colr (1 WIBF). VIRGIN IS: St. John; Calabash Boom; 16 OCT 1980/ under rocks (2 WIBF). VIRGIN IS: St. John; Est. Hermitage, ruins; 20 JUN 1980/ base of wall/ colr. W. B. Muchmore (1 WIBF). VIRGIN IS: St. John; Est. Concordia; Ram Head; 17 JUN 1980/ under shrubs/ colr. W. B. Muchmore (2 WIBF). VIRGIN IS: St. John; Little Lameshur Bay/ 17 MAR 1984; under rocks/ W. B. Muchmore colr. (1 WIBF). VIRGIN IS: St. John; Little Lameshur Bay/ 03 MAR 1984; under rocks/ W. B. Muchmore colr. (1 WIBF). VIRGIN IS: St. John; Little Lameshur Bay/ 18 JUN 1980/ under rocks/ colr. W. B. Muchmore (6 WIBF). VIRGIN IS: St. John; East End Qtr., Haulover; 05MAY1984, litter; under Opuntia; W. B. Muchmore colr (1 WIBF). VIRGIN IS: St. John; Estate Concordia; Drunk Bay 18 JUN 80; und. bush & cactus; W. B. Muchmore colr (1 WIBF). VIRGIN IS: St. John; V.I.E.R.S.; 18-27 JUL 1972; A.B. Gray; Colr. (1 WIBF). SALT POND BAY; ST. JOHN, U.S.V.I.; 05MAY78/ M.A. Ivie; Colr.(2 WIBF). VIRGIN IS: St. John; Estate Caneel Bay; Caneel Bay to Lind Pt; 0-75m, 02JAN1993; Ivie, Miller &

Sikes (1 WIBF). F5133B; St. John, V.I.; III.10.1925 (4 AMNH). F5028B; St. John, V.I.; III.9.1925 (2 AMNH). St. John; 1955. Sta. 618/ Diastolinus; mulsanti Marc.; det. Marcuzzi/ Paralectotype; Diastolinus; hummelinki; Marcuzzi 1962/ WIBF 036018 (1 HNHM). 618/ St. John, 19.VI.55; Chokolate Hole; P.W. Hummelinck/ mulsanti Marcuzzi; det. Marcuzzi/ Lectotype; Diastolinus; hummelinki; Marcuzzi 1962/ WIBF 036019 (1 HNHM).

MONA IS. [Commonwealth; of Puerto Rico]; Native Forest; APRIL 1999; M.A. Garcia, MN1a2 (2 WIBF). MONA IS. [Commonwealth; of Puerto Rico], Bajura; Corral de los Indios; 22-25 FEB 2002; M.A. Garcia & J. Sustache (1 WIBF). Mona Isl. P.R.; Apr.6-8, 1927; WAHoffman (1 NMNH). Mona Is. P.R.; Aug. 1938; Acc# 192-39/ L. F. Martorell; Col. (1 NMNH). Mona Isl. W.I.; III.10.1926 (1 AMNH). Vieques I; Feb 1899/ Porto Rico; Aug Busck/ Opatrinus (1 NMNH). Los Cerezos; Mona Is., P.R.; 18 NOV 1955 (1 NMNH). PUERTO RICO; Toa Boja; Rd 2 @ km 21.3; 09 JUNE 1984; J.A. Santiago-Blay (1 EPRL). Ins. Mona; o. Haiti/ Diastolinus; clavatus Muls.; H. Gebien det. 1931 (1 NHMB).

St. Thomas (W.I.); 17.VI.55; leg. Hummelinck/ Brit.Mus; 1958-136./Diastolinus perforatus; sen. m./ Diastolinus hummelincki Marc.; M.J.D. Brendell det. 1981/ Paralectotype; Diastolinus; hummelinki; Marcuzzi 1962/ WIBF 036017 (1 BMNH).

VIRGIN IS.; St. Thomas; Perseverance; Bay 2 AUG 1980/ M.A. Ivie; Colr. (11 WIBF). VIRGIN IS.; St. Thomas, Est.; Bordeaux Elv.50’; 25 APR1979/ M.A. Ivie; Colr. (1 WIBF). VIRGIN IS.; St. Thomas; Brewer’s Bay; 22NOV1979/ leaf litter; on hillside/ colr. D.; Spillemaeckers (2 WIBF). VIRGIN IS: St. Thomas; Estate Nazareth. Sea; Horse

Cottages; 01-04JAN1993. 120ft; VIBFP colrs (2 WIBF). VIRGIN IS: St. Thomas; Est. Nazareth. 40ft; 01JAN1993-06JUL1994; VIBFP colrs; flight intercept#9 (5 WIBF). VIRGIN IS.; St. Thomsa; 11 VIII 1970/ C Brockner; on cactus; Lot70-1923 (1 NMNH). StThomas; VirginIs/ Near Crown Bay; on ground; W.R. Fyke; St.T&St.J. 1463; 4.15.56.5704 (1 NMNH). VIRGIN IS.; Saba Is. 2 mi. S.; St. Thomas; 24 Mar. 1979/ M.A. & L.L.; Ivie, Colrs. (3 WIBF). V.I.: Buck Is.; Nr. St. Thomas; 30 JULY 1979/ G. Zeletosky (4 WIBF). VIRGIN IS: Little Saba; nr. St. Thomas; 05 JUN 1980; C. Jenning (5 WIBF). VIRGIN IS: Gt. St. James; north side beach to; ridge, 20 OCT 1994; M.A. Ivie colr. (2 WIBF). BRITISH VIRGIN; ISLANDS; Prickly Pear/ 12-X-1991; T. Sinclair (1 WIBF). BR. VIRGIN ISL.; Prickly Pear Isl.; 6 June 1966; Univ.P.R.Isl.; Proj. Staff (1 WIBF). BR.VIRGIN IS: Tortola; Zion Hill, 20m; 07 JULY 1985; S. & P. Miller (20 WIBF). TORTOLA IS; 21-V-62/ B.Boyd with; driftwood/ St. Cr.; 1675/ 62-22806 (1 WIBF). BRIT. VIRGIN ISL.; Frenchmans Cay; (near Tortola Is.); 8 July 1985; G. Mayer (1 NMNH). BRITISH VIRGIN IS; Beef I; 16.vii.1988/ C. O'Connell, Colls.; Bishop Museum/ Acc. #1988.350 (2 WIBF). BRITISH VIRGIN IS.; Marina Cay; 5.viii.1988/ S.E. Miller & C.; O'Connell, Colls.; Bishop Museum/ Acc. #1988.350 (1 WIBF). BRITISH VIRGIN; ISLANDS; Ginger Island/ 2X-1992; W. Lu (1 WIBF). AMER. VIRGIN ISL; Thatch Cay; 12 Nov. 1966; Univ.P.R.Isl.; Proj. Staff (1 WIBF). BR.VIRGIN ISL.; Deadman's Chest; 26MAY 1966; Univ.P.R.Isl.; Proj. Staff (1 WIBF). BRITISH VIRGIN IS; George Dog; 07 JUNE 1966; UPR.Isl.Proj.Staff (1 NMNH). BRIT.VIRGIN ISLANDS; Great Tobago; 13 July 1986; in and on logs; M. S. Collins (2 NMNH). BR.VIRGIN IS.: Virgin; Gorda, Coppermine Pt.; 18 JULY 1994; M.A. Ivie &

T.R. Hughes; under rocks (22 WIBF). VIRGIN GORDA; The Baths BVI; 30 III 1958; J.F.G. Clarke (1 WIBF). BR.VIRGIN IS.: Guana Is; The Flat; 10 JULY 1994; M.A. Ivie colr. (3 WIBF). BR.VIRGIN IS.: Guana Is; The Flat; 12 JULY 1994; M.A. Ivie colr. (1 WIBF). BR.VIRGIN IS.: Guana Is; Hotel to gardens; 16 OCT 2002; M.A. Ivie colr. (2 WIBF). BR.VIRGIN IS.: Guana Is; SW corner Salt Pond; 13 JULY 1994; S.A. Bucklin colr.; berlese leaf litter (2 WIBF). BRITISH VIRGIN; ISLANDS; Gauna Is./ 3X-1994; W. Lu (1 WIBF). BRITISH VIRGIN IS.: Guana Is; 21-26 OCT 1992. M. A.; & L.L. Ivie, at light (1 WIBF). BRIT. VIRGIN ISL; Guana Island, 0-80m; 5-23 JULY 1985; S.E. & P.M. Miller (1 WIBF). BRIT. VIRGIN ISL; Guana Island; 1-14 JULY 1984; S.E. & P.M. Miller (1 WIBF). BRITISH VIRGIN IS.: Guana Is; 18-24 October 2008; coll. T. J. Henry (3 NMNH). BRIT.VIRGIN ISLS.; Guana Island; 8July1988; M. S. Collins/ in litter; under stones (1 NMNH). BR.VIRGIN IS: Peter Is; Deadman Bay, und. rocks; under tamarind; 18 OCT 1994; M. A. & L. L. Ivie (11 WIBF). Peter Id. BVI; Little Bay; 30-III-1958; J F G Clarke (1 WIBF). BRITISH VIRGIN ISLANDS; Peter Island; 21 October 1994; dead branch on ground; Coll. J. Egelhoff (2 NMNH). British Virgin Is.; Anegada, Airport; 23 March 1983; R. S. Miller colr./ under rocks (3 WIBF). British Virgin Is.; Anegada, Setting Pt.; 21-24 March 1983; R. S. Miller colr./ at light (1 WIBF). BR.VIRGIN IS: Anegada; Settlement Ruffling; Pt. Rd. & Nutmeg Pt.; 08 OCT 1994, M.A. & L.L.; Ivie, in rotten log (3 WIBF). VIRGIN IS.; Anegada; Setting Point; 9.viii.-21.ix.1975/ R. K. Butlin; B.M. 1976-140/ Inside dead; papyra trunks (1 BMNH). BRITISH VIRGIN IS; Gt. Camanoe Is., Cam Bay; 0-100ft, 11JULY1994; M.A. Ivie, M.S. Becker; S.A. Bucklin colrs. (3 WIBF). BR. VIRGIN IS; Great Camanoe Is.,

11JULY; 1994. M.A. Ivie, M.S.; Becker & S.A. Bucklin; dry forest litter (1 WIBF). BR. VIRGIN IS: Great; Camanoe Is. 100ft; 11JULY1994; berl. litter, M.A. Ivie,; S.A. Bucklin, M.S.; Becker (1 WIBF). U.S. VIRGIN IS.; Little St. James; 9/11-x-1999; W. Lu coll./ Diastolinus; hummelincki Marcuzzi; det. C. A. Triplehorn '99 (1 OSUC). British Virgin Is.; Guana I.; 1/10-x-1999; B. & B. Valentine (1 OSUC).

Diagnosis. This species can be distinguished from *D. clathratus* by the elytra matte, not shining, a lack of confluent punctation on the elytra, and from other species by the combination of the tiny punctation on the pronotum, lack of setae on the pronotal disc, the humeri equal in width to the base of the pronotum, the lack of armed male tibia, the male parameres straight, not sinuate in lateral view, and with widest point of parameres basally then tapering evenly. Aedeagus very similar in form to *D. clathratus*.

Note. This species is highly variable in size across islands. Mona Island examples tend to have a slightly more convex form.

Redescription (male). Length 7.1–9.2 mm, width 3.4–4.1 mm. Body (Fig. 12) black, except last three antennomeres testaceous; dorsal and ventral surface matte, not shining; ovate-oblong; widest just behind middle, moderately convex; setae almost entirely absent on dorsal surface of body, except head (rarely minute and sparse setae on lateral edge of pronotum).

Head (Fig. 12, 98) with epistoma evenly convex; punctures sub-equal to diameter of ommatidia covering dorsal surface, evenly spaced, separated by 2-3X puncture diameter; setae 2X length of punctures present laterally, mostly absent medially. Labrum densely punctate, about 2X size of punctures on head and separated by less than puncture

diameter apart. Antennae clavate (Fig. 99). Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 12, 101) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior one-third, then sides nearly parallel to base; basal width equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex, all margins narrowly beaded, except obsolete at middle anterior margin; finely punctate, puncture diameter sub-equal to punctures on head, spaced 3-5X diameters of puncture apart on pronotal disc; pronotal disc lacking any setae, rarely minute white setae equal to puncture diameter in length remain laterally. Hypomeron (Fig. 102) feebly rugulose, feebly rugulose, almost impunctate laterally. Prosternal process blunt, punctate, white semi-erect setae about length of puncture diameter visible.

Scutellum (Fig. 12) small, triangular, about 2X times wider than long. Elytron gradually broadening from base to widest point opposite posterior margin of metaventrite, then evenly arcuate to apices; striae impressed; strial punctures deep, distinct, never confluent; intervals slightly convex, punctation minute, evenly spaced. Seventh stria ending in lateral stria at humeral angle.

Mesoventrite (Fig. 104) smooth, almost shining; punctures shallow, sparse. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Fig. 103) surfaces setose and finely punctate. Protibia narrow, expanding gradually in distal three-quarters; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout

spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about three-quaters as long as metatibia, without setose pads; first tarsomere 2X length of second.

Abdominal ventrites (Fig. 13, 105) finely punctate; ventrites 1-2 slightly concave medially, concavity even extending onto intercoxal process; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures, slightly extending onto intercoxal process; ventrites 2 and 3 laterally with row of heavy punctures on anterior edge, typically indistinct on medial concavity; ventrite 3 slightly concave antero-medially; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 14, 15, 106) with basal piece and parameres strongly arched, less than one-third of elytral length; parameres widest basally, narrowed apically; parameres with straight lateral margin, chisel-like, not undulate or with upturned tips in lateral view.

Female. Length 7.2–10.5 mm, width 3.8–4.9 mm. Similar to male except body typically larger, more robust than male. Protarsi and mesotarsi not heavily expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex, ovipositor illustrated (Fig. 107).

Biology. Adults have been collected under various organic debris such as *Opuntia* pads, rotten logs and driftwood, trash such as sheet metal, and rocks. They have been taken in pitfall traps and the pitfall portion of FITs as well.

Distribution. Mona, Monito, Puerto Rico, Vieques* (NMNH), St. Thomas, Saba Is.* (St. Thomas, WIBF), Buck Is.* (St. Thomas, WIBF), Great St. James* (WIBF), Little St. James* (OSUC), Thatch Cay* (St. Thomas), St.John, Frenchman Cay* (Tortola, NMNH), Tortola* (WIBF), Great Tobago* (Jost van Dyke, NMNH), Guana, Marina Cay* (Tortola), Great Camanoe* (WIBF), Beef Is.* (WIBF), Peter Is.* (NMNH, WIBF), Dead Chest* (Tortola, WIBF), Ginger Is.* (Virgin Gorda, WIBF), George Dog* (Virgin Gorda, NMNH), Prickly Pear Is.* (Virgin Gorda, WIBF), Virgin Gorda* (WIBF), Anegada* (BMNH, WIBF) (Fig. 111).

Diastolinus leewardensis Hart and Ivie, New Species

(Figs. 16-19, 112)

Diastolinus puncticollis: Marcuzzi 1957: 128 (in part, Saba, St. Eustatius, St. Kitts, Nevis records only); 1962: 26 (in part, Saba, St. Eustatius, St. Kitts, Nevis records only); 1977: 22 (in part, Barbuda, Nevis, St. Kitts, St. Eustatius, Saba records only); 1983: 244 (male genitalia, Saba, Antigua); 1984: 78 (in part, Nevis, St. Kitts, St. Eustatius, Saba, Antigua records only); 1987: 96 (female genitalia, St. Kitts). Ivie *et al.* 2008: 253 (Montserrat). Peck 2011a: 33 (in part,?Antigua, Barbuda, Saba, St. Eustatius, St. Kitts, Montserrat, Nevis records only). Peck *et al.* 2014: 84 (in part, ?Antigua, Barbuda, Saba, St. Eustatius, St. Kitts, Montserrat, Nevis records only). Peck 2016: 160 (in part, ?Antigua, Barbuda, Saba, St. Eustatius, St. Kitts, Montserrat, Nevis records only).

Diastolinus sallei; Marcuzzi 1957: 128 (in part, St. Kitts, Barbuda, Antigua records only); 1962: 25 (in part, Antigua, Barbuda records only); 1977: 22 (in part, Antigua, Barbuda, Saba records only); 1984: 78 (in part, Antigua, Barbuda records only). Peck 2006: 189 (in part, Antigua, Barbuda records only); 2011a: 33 (in part, Antigua, Barbuda, Saba records only). Peck *et al.* 2014: 84 (in part, Antigua, Barbuda, Saba records only). Peck 2016: 160 (in part, Antigua, Barbuda, Saba records only).

Diastolinus costipennis; Marcuzzi 1957: 128 (in part, St. Kitts records only); 1962: 27 (in part, St. Kitts records only). Marcuzzi and D'Aguilar 1971: 80 (in part, St. Kitts records only). Marcuzzi 1984: 77 (in part St. Kitts records only). Peck 2011a: 33 (in part, St. Kitts records only). Peck 2011b: 29 (in part, St. Kitts records only); 2016: 159 (in part, St. Kitts records only).

Sellio coarctatus Marcuzzi 1962: 31 (in part, St. Kitts records only); 1984 : 82 (in part, St. Kitts records only). Garrido 2004b: 119 (in part, St. Kitts records only). Peck 2011a: 33 (in part, St. Kitts records only); 2016: 160 (in part, St. Kitts records only).

Diastolinus clavatus; Marcuzzi 1977: 13 (in part, Nevis records only). Peck 2011a: 33 (in part, Nevis records only); 2016: 159 (in part, Nevis records only).

Echoing the situation for *D. chalumeaui* above, this species also has an extensive literature history based entirely on misidentifications. None of the five species whose names have been used for populations belonging to this species actually occur on the Leeward Islands.

Type Material. HOLOTYPE: Male. SABA: NETH.ANT.: Dancing; Place Tr. Trailhead el.328m; 17.62452°N, 63.23713°W ±23m; dry forest leaf litter, Berlese;

13MAR2008 D.S. Sikes/ WIBF 034011 (from WIBF, deposited in NMNH). PARATYPES (36 specimens): SABA: NETH.ANT.: Dancing; Place Tr. Trailhead el.401m; 17.62452°N, 63.23713°W ±23m; dry forest, uv light/hand coll.; 13MAR2008 D.S. Sikes (7 females and 11 males, WIBF 034510 - 034527). SABA: NETH.ANT.: Dancing; Place Tr. Trailhead el.291m; 17.6245°N, 63.2371°W ±9m; roadside, headlamp 2100-2200; 13MAR2008 J.A. Slowik (1 female, WIBF 034757). SABA: NETH.ANT.: Mt. Scenery; Tr. Trailhead el.339-350m; 17.62873°N, 63.23348°W; ±10.5m wet forest, night coll. Uv; 12MAR2008 D.S. Sikes (1 male, WIBF 034101). SABA: NETH.ANT.:; Windwardside, Scout's Place; Hotel el.405m, 17.62789°N; 63.23143°W ±20m at lights; 9MAR2008 D.S. Sikes (3 females and 2 males, WIBF 034198 – 034201, 034210). SABA: NETH.ANT.: Fort Bay; Beach, Giles Quarter Trail; 17.6151°N, 63.2454°W ±9m; rocky beach, flip rocks 830-910; 12MAR2008 J.A. Slowik (1 female, WIBF 034754). SABA: NETH.ANT.: Jan's House; Boobie Hill el.359m, 17.6232°N; 63.2267°W ±6m shrubs, 10; pitfalls, 13-15MAR2008 J.A.; Slowik (1 male, WIBF 034761). SABA: NETH.ANTL.; Near Boobie Hill, 401m; 17.62318°N, 63.22675°W; 13MAR-01APR2008, D. Sikes; J. Slowik, FIT w/pitfall (1 female, WIBF 057789). SABA: NETH.ANTL.; Near Boobie Hill, 401m; 17.62318°N, 63.22675°W; 01APR-01MAY2008, D. Sikes; J. Slowik, FIT w/pitfall (1 male, WIBF 057209). SABA: NETH.ANTL.; Dancing Place Trail, 346m; 17.62551°N, 63.23464°W; 23MAY2008 M.A. Ivie; beating dead trees (1 female, WIBF 057071). WEST INDIES: SABA; Windwardside; 25 March 1986; R.S. Miller colr. (2 females, WIBF 035565 – 035566). WEST INDIES: SABA; Windwardside; 19 March 1986; R.S. Miller colr. (1 male, WIBF

035567). WEST INDIES: SABA; SW. Windwardside; 21 March 1986; R.S. Miller colr.; xeric scrub (1 female, WIBF 035568). WEST INDIES: SABA; Gut W. Hells Gate; 24 March 1986; mesic forest; R.S. Miller colr. (1 male, WIBF 035321). SABA, NETH.ANT.; Mountain Road; 24 OCT 2010; M. Gillet colr; SB0339 (1 female, WIBF 035569).

Other Material Examined. WEST INDIES: SABA; SW. Windwardside; 21 March 1986; R.S. Miller colr.; xeric scrub (2 OSUC). WEST INDIES: SABA; Windwardside to; Ft. Bay Gut E. Bottom; 21 March 1986; R.S. Miller colr. (1 OSUC). WEST INDIES: SABA; Windwardside; 25 March 1986; R.S. Miller colr. (1 OSUC). ST. EUSTATIUS: 234m; Quill Trail The Bench; 17.47461°N, 62.96896°W; 27MAY2008 in logs; and beating, M.A. Ivie (1 WIBF). ST. EUSTATIUS: Venus Bay; Boven Sec Natl Park 0-6m; 17.51544°N, 62.98960°W; 26MAY2008 beach/beating; M.A. Ivie & N. Esteban (1 WIBF). EUSTATIUS, Quill; Glass Bottle, 12.VII; 1949, No.471/ Diastolinus; puncticollis M&R; det. Marcuzzi (1 HNHM). WestIndies:; Nevis; 24-26.ii.1931; Lt.Com.R.H.S.Roger.; B.M.1931-181 (1 BMNH). BARBUDA BWI; Derby Cave; 26 IV 1958; J.F.G. Clarke (44 NMNH). BARBUDA BWI; nr. Martello; Tower 7-IV’56; J.F.G. Clarke (3 NMNH). W.Indies 1959; Barbuda 23 IV; papaya tree (3 NMNH). Barbuda; West Indies/ 22/ Diastolinus; puncticollis M&R; det. Marcuzzi (1 HNHM). Barbuda; West Indies/ Diastolinus; perforatus Sahlb.; det. Marcuzzi (1 HNHM). Antigua; W. Indies; June 26-18; L. Stoner (10 AMNH). Antigua; W. Indies; June 24-18; L. Stoner (12 AMNH). Antigua; W. Indies; June 24; L. Stoner (7 AMNH). Antigua; W. Indies; June; L. Stoner (1 AMNH). Antigua; W. Indies; June 1918; L. Stoner (2 AMNH). Antigua; W.

Indies/ June 20; L. Stoner (3 AMNH). Antigua; W. Indies/ June 21; L. Stoner (1 AMNH). Antigua; W. Indies; July 1-18; L. Stoner (5 AMNH). Antigua; BWI; 28-VIII-36/ Sta.282; Chapin and; Blackwelder (8 NMNH). Antigua; W.9.; MarcsRall./ Diastolinus sp.; near puncticollis Muls; J.B./ G.C. Champion Coll.; B.M.1927-409 (1 BMNH). Antigua/ ? F.Chev./ F.Bates; 81-19/ Diastolinus; sallei M&R (1 BMNH). BWI: ANTIGUA: St. Mary; Par., Darkwood Beach; 21 Jan 1986/ u.rock; leg. D.M.Field; & W.Setter/ Opatrinus; clathratus (Fab.); det. C.A.Triplehorn'00 (1 FMNH). ANTIGUA: SE of; English Harbor Town; 21 NOV 1999; M.A. Ivie. und.rocks (2 WIBF). MONTSERRAT: Woodlands Ghaut, 43m; 16°45.99'N, 69°13.34'W; 03JAN2002, M.A. Ivie; beating & under bark (2 WIBF).

Diagnosis. This species can be distinguished from other species by the combination of the somewhat parallel sided body, the setose dorsal surface, the matte-black elytra with non-confluent strial punctures, the two or fewer punctures evident on the sutural stria, the small gular horns, the evenly rounded lateral edges of the pronotum with the widest point appearing anterior of hind angles and finally the male genitalia with weakly sinuate parameres that are sub-parallel with a bluntly rounded apex. This species closely resembles *D. shieli*, but can be distinguished by the less dense and shorter setae, and the abdominal ventrites 2-3 with larger, deeper punctation on the anterior border.

Description (male). Length 7.5–9.1 mm, width 3.1–4.0 mm. Body (Fig. 16) black, except last three antennomeres testaceous; dull upper surface, ventral surface somewhat shining; oblong, almost parallel sided; widest at middle, moderately convex; scattered light-colored short setae.

Head (Fig. 16) with epistoma evenly convex; punctures equal to diameter of ommatidia covering dorsal surface, evenly spaced, separated by 1X puncture diameter posteriorly, separated by less than 1X puncture diameter anteriorly; setae 2X length of puncture diameter. Labrum densely punctate. Antennae clavate. Dorsal and ventral portions of eye sub-equal in size and shape. Gular horns short.

Pronotum (Fig. 16) widest at middle; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior half, then sides narrowing to base; basal width sub-equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; punctate, puncture diameter sub-equal that of punctures on head, spaced 1X diameter of puncture apart on pronotal disc; fine light color setae typically 2-4X puncture diameter in length cover surface. Hypomeron feebly rugulose, punctate shallowly. Prosternal process tongue-like, punctate.

Scutellum (Fig. 16) small, sub-triangular, about 2X wider than long. Elytron slightly broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; strial punctures deep, never confluent; intervals convex, punctation minute, even. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite somewhat rugulose, punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg surfaces setose and finely punctate. Protibia narrow, expanding gradually in distal two-thirds; dorsolateral margin nearly straight; posteroventral surface with small

stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, 1.5X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about half as long as metatibia, without setose pads; first tarsomere 2X length of second.

Abdominal ventrites (Fig. 17) finely punctate; ventrites 1-2 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process; ventrites 2 and 3 laterally with row of heavy punctures on anterior edge, indistinct on medial concavity; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 18, 19) with basal piece and parameres strongly arched, less than one-half of elytral length; parameres sub-parallel in basal two-thirds, narrowed in apical one-third, tips bluntly rounded; parameres with weakly sinuate lateral margin, slightly upturned tips in lateral view.

Female. Length 8.0–10.0 mm, width 3.6–4.4 mm. Similar to male except body typically larger, more robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Note. Elytral striae are somewhat less impressed and strial punctures shallower in Barbuda and Antigua specimens.

Biology. Adults have been collected in dry and moist forest, at night with uv lights, beating dead trees, and under bark They have been collected at night on the ground as well as from the pitfall portion of a FIT and Berlese samples. Specimens have been found at elevations ranging from 0-400 m above sea level.

Distribution. Saba, St. Eustatius, St. Kitts, Nevis, Montserrat, Antigua, Barbuda [see notes under *D. shieli* below] (Fig. 112).

Etymology. This species is named for its broad distribution throughout the LeewardIslandsof the Lesser Antilles.

Diastolinus perforatus (Schönherr)

(Figs. 24-29, 112)

Opat. perforatum Schönherr, 1806: 146 (as synonym of *Blaps punctata* Fabricius 1792: 109). Type Locality St. Barthélemy, NHRS, name validated by Sahlberg 1823, see below).

Opatrinum perforatum; Dejean 1821: 66 (nomen nudem). Sahlberg 1823: 15.

Diastolinus perforatus; Mulsant and Rey 1859: 77; 1860: 141 (in part, Saint Barthélemy records only) Leng and Mutchler 1914: 460 (in part, Saint Barthélemy records only). Gebien 1938: 294 [413] (in part, Saint Barthélemy records only). Blackwelder 1945: 524 (in part, Saint Barthélemy records only). Marcuzzi 1957:128 (in part, Anguilla, St. Martin, Saint Barthélemy records only); 1962: 27 (in part, Anguilla, St. Martin, Île de la Fourche, Saint Barthélemy records only). Marcuzzi and D'Aguilar 1971: 80 (in part, St. Martin, Île de la Fourche, Saint Barthélemy, Anguilla records only). Marcuzzi 1977: 19 (in part, St. Martin, Tintamarre, Île de la Fourche, Saint Barthélemy, Anguilla records only); 1983: 246 (male genitalia, St. Martin); 1984: 78 (in part St. Martin, Île de la Fourche,Saint Barthélemy, Anguilla records only); 1998: 154. Peck 2011a: 33 (in part, Anguilla, Saint Barthélemy, Île de la Fourche,

Tintamarre, St. Martin records only); 2011b: 29 (in part, Anguilla, Saint Barthélemy, Île de la Fourche, Tintamarre, St. Martin records only). Peck *et al.* 2014: 84 (in part, Anguilla, Saint Barthélemy, Île de la Fourche, Tintamarre, St. Martin records only). Peck 2016: 160 (in part, Anguilla, Saint Barthélemy, Île de la Fourche, Tintamarre, St. Martin records only).

Diastolinus (*Diastolinus*) *perforatus*; Marcuzzi 1986: 179.

Diastolinus puncticollis; Marcuzzi 1957: 128 (in part, Anguilla record only); 1962: 26 (in part, Anguilla record only); 1977: 22 (in part, Anguilla records only); 1984: 78 (in part, Anguilla records only). Peck 2011a: 33 (in part, Anguilla records only). Peck *et al.* 2014: 84 (in part, Anguilla records only). Peck 2016: 160 (in part, Anguilla records only).

Diastolinus clathratus; Marcuzzi 1957: 128 (in part, St. Martin records only); 1962: 27 (in part, St. Martin records only). Marcuzzi and D'Aguilar 1971: 80 (in part, St. Martin records only). Marcuzzi 1977: 13 (in part, St. Martin records only); 1984: 77 (in part St. Martin records only).

Diastolinus clavatus; Marcuzzi 1977: 13 (in part, St. Martin, Saint Barthélemy records only); 1987: 95 (female genitalia, St. Martin). Peck 2011a: 33 (in part, Saint Barthélemy, St. Martin records only); 2016: 159 (in part, Saint Barthélemy, St. Martin records only).

Disatolinus sallei; Marcuzzi 1983: 246 (male genitalia, Anguilla); 1984: 78 (in part Anguilla records only). Peck 2011a: 33 (in part, Anguilla records only). Peck *et al.*

2014: 84 (in part, Anguilla records only). Peck 2016: 160 (in part, Anguilla? records only).

The early history of this name is significantly confused. The earliest use seems to have been by Schönherr (1806) who used "*Opat. perforatum*" as a *nomen nudem* attributed to Gyllenhal placed in synonymy with Fabricius' (1792: 109) valid name *B. punctata* (and subsequent uses of *punctata* by Herbst and Panzer). Next usage was Dejean (1821) who treated it as the valid name *perforatum* from "Am. Ins." in a list of *Opatrum*, and also attributed the species epithet to Gyllenhal. "Valid" here means that Dejean considered it a valid species, not that the name was made available, as there was no description.

Two years later, Sahlberg (1823: 15) first applied a description to the name *Opatrum perforatum*, also attributing it to Gyllenhal. He also treated the name as valid. This description is the first to associate the name with St. Barthélemy in print, and tie the name to a specimen, probably using the same specimens first labeled by Gyllenhal, as both worked out of the Stockholm museum. This type is in the Swedish Museum of Natural History, Stockholm, according to their list of species held (<http://www2.nrm.se/en/col_p.html>, accessed 14 February 2016).

Next, Muslant and Rey (1859) moved the name to *Diastolinus*, and continued to cite Gyllenhal as the author, dating it to Schönherr (1806), also treating it as a valid species rather than a synonym of *B. punctata*, stating "(*en exclusant les syn. de Fabr,. Herbst et Panzer*)."

We have nothing after this until Leng and Mutchler (1914), who cite Sahlberg as the author. Enter Gebien (1938) who cataloged the world Tenebrionidae. He used Sahlberg (1823) as the author, as did Blackwelder (1945: 524), and everything thereafter.

Under ICZN (1999) Art. 11.6, Schönherr's (1806) use as a synonym does not make the name *perforatum* available. However, under Art. 11.6.1, if the name is subsequently used as an available name, it would become available as *Opatrum perforatum* Schönherr, 1806. Under Art. 72.4.3. "The type series of a nominal species-group taxon of which the name was first published as a junior synonym, but was made available before 1961 under the provisions of Article 11.6, consists of the specimen (or specimens) cited with that name in the published synonymy, or, if none was cited there, denoted by that name when it was adopted as the name of a taxon." Schönherr referenced no specimen, so the type designation moves to Sahlberg. Thus, the type of *Opatrum perforatum* Schönherr, 1806 is the specimen Sahlberg (1823) cited, which is Gyllenhal's specimen from St. Barthélemy in Stockholm.

Type Material. Holotype not examined (NHRS).

Other Material Examined. St. Barthel./ v. Goës. (5 NHMB). St. Bartolom./ 1657 (1 BMNH). St. Bartho;lomy; Billberg; Perforatus; Sahlb (1 ZMUC). Schönh.; Ins. Bartho; lomei/ Perforatus; Gyll. (1 NHMB). Opatrinus; laevicollis; Sol. Martin/ 71.6 (1 BMNH). SINT MAARTIN, NA; Pto. Blande; 19JAN 2004; M.A. & L.L. Ivie; under rocks (2 WIBF). SAINT MARTIN; Marigot; 25FEB1965; H. Heatwole &; F. McKenzie (1 WIBF). 458a ST. MARTIN, Point Blanche; W, 29.VII.1967/ Brit. Mus.; 1973-207/ Diastolinus; perforatus; det. G. Marcuzzi 1971/ Agrees with photo in; Marcuzzi 1962

PlateI; M.J.D.Brendell 1976 (1 BMNH). WEST INDIES: St.; Maartin, Mullet; Bay, 19 Mar. 1986; R.S. Miller colr. (4 WIBF, 3 OSUC). WEST INDIES: St.; Maartin, Mullet; Bay, 18 Mar. 1986; R.S. Miller colr.; along beach (2 WIBF). St. Martin, N of; Cupecoy Bay; 40-45m, 26.6.73 (1 HNHM). Saint Maartin, B.W.I.; Old Fort Hill 400'; 12-IV-58; J.F.G. Clarke, collr. (2 NMNH). SOMBRERO, WI; 18°35.17'N, 63°25.63'W; 12-13 NOV 1999; M.A. Ivie & J.B. Runyon (3 WIBF). WEST INDIES: Sombrero; 18°35.171'N; 63°25.631'W, 13m; 08-12 NOV 1999; M.A. Ivie & J.B. Runyon (1 WIBF). ANGUILLA: South Hill; 18° 11' 50"N; 63° 05' 20"W; 25 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (2 NMNH). ANGUILLA: Brimegin; 18° 14' 50"N; 63° 03' 00"W; 24 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (2 NMNH). ANGUILLA: The Valley; 18° 13' 00"N; 63° 03' 20"W; 26 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (2 NMNH). ANGUILLA: The Valley; 18° 13' 00"N; 63° 03' 20"W; 25 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (7 NMNH). ANGUILLA; Rendezvous Bay; 18° 10' 50"N; 63° 06' 40"W; 27 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (3 NMNH). ANGUILLA; Lower Shoal Bay; 18° 15' 40"N; 63° 01' 40"W; 28 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (3 NMNH). ANGUILLA: Forest Bay; 18° 12' 00"N; 63° 02' 30"W; 29 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (4 NMNH). ANGUILLA: Shannon Hill; 18° 12' 30"N; 63° 05' 30"W; 26 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (12 NMNH). ANGUILLA: Sandy Ground; 18° 12' 20"N; 63° 05' 30"W; 24 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (12 NMNH). ANGUILLA: Sandy Ground; 18° 12' 20"N; 63° 05' 30"W; 27 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (4 NMNH).

ANGUILLA: Sandy Ground; 18° 12’ 20”N; 63° 05’ 30”W; 29 March 1992; collrs. W.E. Steiner; & J.M. Swearingen/ Flight Intercept-; yellow pan trap; in Malaise Trap in Acacia; scrub, hillside above, salt pond (1 NMNH). ANGUILLA: Crocus Bay; 18° 13’ 10”N; 63° 04’ 00”W; 24 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (13 NMNH). ANGUILLA: Rey Hill; 18° 12’ 20”N; 63° 03’ 00”W; 30 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (5 NMNH). ANGUILLA: Prickly Pear; Cay (East), north sided; 18° 16’ 10”N; 63° 10’ 30”W; 30 March 1992; collrs. W.E. Steiner; & J.M. Swearingen (1 NMNH). ANGUILLA: Mead's Bay; 18˚10.904'N, 63˚08.186'W; 14MAY2004, M.A.Ivie; dunes behind beach (36 WIBF). ANGUILLA: Mead's Bay; dune behind beach, 10'; 18˚10.904'N, 63˚08.186'W; 17MAY2004, M.A.Ivie; in/under rot.loblolly (24 WIBF). ANGUILLA: East End; nr. Captain's Bay. 20'; Windward Pt. Dr.; 18˚15.696'N, 62˚58.798'W; 15MAY2004, M.A.Ivie (5 WIBF). ANGUILLA:West End;15MAY2004; M.A.Ivie; at lighted sign (1 WIBF). ANGUILLA: Mango Garden Rd; 18˚13.893'N, 63˚00.933'W; 15MAY2004, 11ft; rain wrack at base of; loblolly, M.A.Ivie (3 WIBF). ANGUILLA: Low Ground; Black Garden Rd. 54'; 18˚13.795'N, 63˚03.959'W; 16MAY2004, M.A.Ivie; in/under rot. Loblolly (12 WIBF). ANGUILLA: Low Ground; Black Garden Rd. 54'; 18˚13.795'N, 63˚03.959'W; 17MAY2004, M.A.Ivie; in/under rot. Loblolly (19 WIBF). ANGUILLA; 18˚12.394'N, 63˚03.969'W; Old Ta to Sandy Ground; 16-20 NOV 1999, 0-200ft; M.A.Ivie & J.B. Runyon (4 WIBF). ANGUILLA: Sandy Ground; to N.Shannon Hill; and road to Salt Pond; 08 NOV 1999, 0-200FT; M.A.Ivie & J.B. Runyon (17 WIBF). ANGUILLA, B.W.I.; nr. Captain's Beach; 01FEB1987; J.L.Johnson colr. (10 WIBF). ANGUILLA, B.W.I.; Old Ta; 20NOV1999; M.A.Ivie colr.

(1 WIBF). ANGUILLA, Forest Point; 18-VI-1949, leg. Wage-; narr Hummelinck/ Diastolinus; perforatus Sahl.; det. Marcuzzi (1 HNHM). Anguilla; Marcuzzi/ 41/ Diastolinus; sallei Muls. & Rey; det. Marcuzzi (1 HNHM).

Diagnosis. This species can be distinguished by the combination of the base of pronotum sub-equal to the humerus, the matte dorsal surface, the dorsal surface almost entirely lacking setae, the abdominal ventrites 2 and 3 often without a row of distinct heavy punctures at the anterior edge of the ventrite, instead with at most one or two shallow punctures near the lateral edge of the ventrite, the legs are relatively robust, with the metatarsus expaned, not gracile, and finally the aedeagus terminates in parameres that have a straight apical margin.

Redescription (male). Length 6.9–8.8 mm, width 3.0–3.9 mm. Body (Fig. 24) black, except antennae typically pitchy red, last three antennomeres mostly testaceous; matte surface; ovate-oblong; widest at middle, convex; body almost entirely lacking setae.

Head (Fig. 25) with epistoma evenly convex; punctures less than diameter of ommatidia covering dorsal surface, separated by 2-3X puncture diameter basally and spaced less than 1X puncture diameter apart on the anterior margin. Labrum shallowly punctate, punctures less dense than on clypeus. Antennae clavate. Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 24) widest just anterior of midpoint; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior three-eighths, then sides gradually narrowed to base; basal width sub-equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded,

except obsolete at middle of anterior margin; minutely punctate, puncture diameter half that of punctures on head, spaced 3-5X diameters of puncture apart on pronotal disc. Hypomeron feebly rugulose, almost impunctate. Prosternal process tongue-like, shallowly punctate, rarely with light colored semi-erect setae 2X length of puncture diameter.

Scutellum (Fig. 24) small, triangular, about 2X wider than long. Elytron gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; strial punctures deep, not confluent; intervals convex, punctation minute, even. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite shallowly punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Fig. 27) surfaces finely punctate. Profemora expanded. Protibia narrow, expanding gradually in distal three-fourths; dorsolateral margin slightly arcuate; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus and metatarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 1.5X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus somewhat expanded, about two-thirds as long as metatibia, without setose pads; first tarsomere 1.5X length of second.

Abdominal ventrites (Fig. 28) minutely, sparsley punctate; ventrites 1-2 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy

punctures; ventrites 2-3 often lacking row of distinct heavy punctures at anterior border of ventrite, typically at most 1-2 shallow punctures laterally or shallow punctures laterally, not apparent mesally, weak longitudinal strioles sometimes follow; ventrite 5 flattened medially, finely punctate, posterior margin evenly rounded. Aedeagus (Fig. 26, 29) with basal piece and parameres strongly arched, about one-third of elytral length; parameres widened slightly from base, slightly rounded just before apex, then cut off suddenly by straight apical margin; parameres with almost straight lateral margin, not undulate, with slightly upturned tips in lateral view.

Female. Length 7.0–9.0 mm, width 3.1–4.1mm. Similar to male except body more robust and convex than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 convex; ventrite 5 slightly convex.

Biology. Adults have been recorded from under rotten loblolly logs (water mampoo, *Pisonia subcordata* Sw. Nyctaginaceae), in rain wrack at the base of loblolly, and found on dunes behind beaches. Specimens have been found at elevations ranging from 0-61 m above sea level.

Distribution. Sombrero* (WIBF), Anguilla, Prickly Pear Cay* (NMNH), St. Martin, Île de la Fourche, Saint Barthélemy, Tintamarre (Fig. 111).

Diastolinus shieli Hart and Ivie, New Species

(Figs. 20-23, 112)

Type Material. HOLOTYPE: Male. REDONDA BWI; 700 ft.; 17 IV 1958; J.F.G. Clarke/ ex. dead agave/ WIBF 035570 (NMNH). PARATYPES (14 specimens): 1 female

and 6 males sharing the same label data as the Holotype (from NMNH, WIBF 035571 – 035577). REDONDA, WEST INDIES:; 16°56.36’N, 62°20.75’W; 06AUG2005, 500-900ft; I.A. Foley colr; under booby nests (4 females and 3 males, WIBF 035379, 035380, 035391, 035578 - 035581).

Diagnosis. This species can be distinguished from other species by the combination of the the somewhat parallel sided body, the setose dorsal surface, the matte black elytra with non-confluent strial punctures, the 2 or fewer punctures evident on the sutural stria, the small gular horns, the evenly rounded lateral edges of the pronotum with the widest point appearing anterior of hind angles and finally the male genitalia with weakly sinuate parameres that are sub-parallel with a bluntly rounded apex. This species closely resembles *D. leewardensis,* but can be distinguished by the denser and longer setae, and the abdominal ventrites 2-3 with shallow punctation on the anterior border. The status of the Redonda population as a species that differs from those of the islands surrounding it on three sides (Fig. 112) is interesting, but apparently correct.

Description (male). Length 9.0–10.1 mm, width 3.9–4.2 mm. Body (Fig. 20) black, except antennomeres reddish, apical 3 antennomeres testaceous; upper surface somewhat shining, ventral surface somewhat shining; oblong, almost parallel sided; widest at middle, moderately convex; scattered yellowish setae.

Head (Fig. 20) with epistoma broadly, evenly convex; punctures equal to diameter of ommatidia covering dorsal surface, frons with shallowly, closely spaced punctures sometimes confluent, punctures deeper, more separate anterolaterally, separated by less than 1X puncture diameter; setae 2-3X length of puncture diameter. Labrum densely

punctate. Antennae clavate. Dorsal and ventral portions of eye sub-equal in size and shape. Gular horns short.

Pronotum (Fig. 20) widest at middle; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior half, then sides narrowing to base; basal width sub-equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; densely punctate, puncture diameter sub-equal that of punctures on head, spaced 1-2X diameters of puncture apart on pronotal disc; yellowish setae typically 2-4X puncture diameter in length cover surface. Hypomeron rugulose, punctate shallowly. Prosternal process tongue-like, punctate.

Scutellum (Fig. 20) small, sub-triangular, about 2X wider than long. Elytron slightly broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; strial punctures deep, closely spced, never confluent; intervals convex, punctation minute, even. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite somewhat rugulose, punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Fig. 20) surfaces densely setose and finely punctate. Protibia narrow, expanding gradually in distal two-thirds; dorsolateral margin nearly straight; posteroventral surface with small stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, 1.5X width of tarsomere 4. Mesotarsus with tarsomeres 1-3

weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about half as long as metatibia, without setose pads; first tarsomere more than 2X length of second.

Abdominal ventrites (Fig. 21) finely punctate and setose; ventrites 1-2 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process; ventrites 2 and 3 laterally with row of punctures on anterior edge, indistinct on medial concavity, punctures relatively shallow compared to punctures on ventrite 1, longitudinal rugulose areas posterior of punctures; ventrite 3 flattened medially; ventrite 5 depressed medially, posterior margin evenly rounded. Aedeagus (Fig. 22, 23) with basal piece and parameres strongly arched, about one-half of elytral length; parameres parallel in basal two-thirds, narrowed in apical one-third, tips bluntly rounded; parameres with weakly sinuate lateral margin, slightly upturned tips in lateral view.

Female. Length 9.5–10.1 mm, width 4.0–4.5 mm. Similar to male except body typically larger, more robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Adults have been collected in booby nests on the ground and from dead agave. Specimens have been found at elevations ranging from 213-274 m.

Distribution. Redonda (NMNH, WIBF) (Fig. 112).

Etymology. This species is named for the noted West-Indian-born science fiction novelist Matthew Phipps Shiell (21 July 1865 – 17 February 1947), mostly known as M. P. Shiel, the first to claim the throne of the legendary Kingdom of Redonda. Note that his surname at birth had one “l” more than his pen name, and our epithet in his honor follows

his use on his writings. Shiel assumed the title of King Felipe until, *sans issue*, he passed it to his appointed heir and literary executor, John Gawsworth. Though the control over the physical jurisdiction of the actual island is clear, the current succession of the title is disputed.

"sellio" Species-Group

Diagnosis. This species-group can be distinguished by a combination of small to large size (6.1 – 10.6 mm in length); the constricted anterior third of the elytra, anterior of the point where the 8th stria joins the lateral stria, to narrower than the basal width of the pronotum (the elytra sometimes expand anteriorly from the constricted point to sub-equal the width of the posterior edge of the pronotum or the posterior edge of pronotum wider than the base of the elytra); the femora typically swollen and clavate, especially in the male prolegs; and the male protibiae are often armed with a distinct stout spine. This group contains all of the former members of the genus *Sellio* and several species originally described in *Diastolinus*. The previous classification of *Sellio* as a separate genus had issues as there were species that were intermediates in form. What formerly was considered a separate genus is merely a grade, although useful for identification purposes. This group is distributed throughout Hispaniola, Puerto Rico and the Virgin Islands (Figs. 108).

Diastolinus azuaensis Hart and Ivie, New Species

(Figs. 30-35, 109)

Type Material: HOLOTYPE: Male. REP.DOM. Azua Prov. 18 km E. Azua; XII-28-1986; Doyen & Santiago/ WIBF 035538 (from WIBF, deposited in NMNH).

Diagnosis. This species looks similar to *D. coarctatus* but can be distinguished by the male foretibia armed with a large, single distinct spine, the scutellum larger and crescent shaped, the longer setae on the pronotum with long, and the punctation on pronotal disk typically spaced greater than the diameter of a puncture apart.

Description (male). Length 10.0 mm, width 4.1 mm. Body (Fig. 30) black, except distal half of eighth antennomere reddish, last three antennomeres fully reddish; somewhat shining; convex, oblong shape; covered in long yellow setae.

Head (Fig. 30) with epistoma evenly convex; punctures greater than diameter of ommatidia covering dorsal surface, evenly spaced, separated by about one puncture diameter; setae 2-4X length of punctures. Labrum densely punctate, punctures sub-equal to punctures on head. Antennae weakly clavate. Dorsal portion of eye circular; ventral portion somewhat ovate. Gular horns short, not prominent.

Pronotum (Fig. 31) widest at middle; apical margin evenly emarginate; apical corners rounded, lateral margin gently rounded outwards from apex in anterior half, then sides gently rounded to base; base slightly wider than humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin, bead may be obscured somewhat by setae; heavily punctate, punctures sub-equal diameter to punctures on head, closely spaced about equal to one puncture

diameter apart on pronotal disc; long yellow setae on pronotal disc, longer laterally, typically at least 4X length of puncture diameter. Hypomeron rugulose, punctate shallowly, setae less dense than dorsal surface. Prosternal process toungue-like, short, not reaching mesoventrite, punctate, setose.

Scutellum (Fig. 31) short, crescent shaped, about 2.5X as wide as long. Elytra constricted in anterior one-third. Elytron gradually broadening from base to widest point, opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; strial punctures deep, not confluent; intervals convex, punctation minute; setae at least as long as 3X diameter of strial punctures. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite punctate, rugulose. Metaventrite short, punctate anterior border behind mesocoxae.

Leg surfaces densely setose and heavily punctate. Femora expanded. Protibia (Fig. 33) narrow, expanding gradually in distal three-fourths; dorsolateral margin somewhat arcuate; posteroventral surface with prominent spine at middle; apex obliquely truncate, ringed by stout spines. Protarsus and mesotarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Metatarsus narrow, about two-thirds as long as metatibia, without setose pads; first tarsomere more than 2X length of second.

Abdomal ventrites (Fig. 34) scattered with large punctation; ventrites 1-3 slightly concave medially, concavity not extending onto intercoxal process; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal

process; ventrites 2 laterally with row of heavy punctures on anterior edge, indistinct on medial concavity; ventrite 3 laterally and medially with row of heavy punctures on anterior edge; ventrite 5 flattened medially, heavily punctate, posterior margin evenly rounded. Aedeagus (Fig. 32, 35) with basal piece and parameres strongly arched, length about equal to two-thirds elytra length; parameres slightly narrowing from base, then gently expanding to widest point, then converging gently towards apex, gently rounded at apex; parameres with slightly sinuate lateral margin, with upturned tips in lateral view.

Female. Unknown.

Biology. Unknown.

Distribution. Hispaniola. Known only from a single specimen from Azua Province, Dominican Republic (Fig. 109).

Etymology. Named after the type locality, Azua Province.

Diastolinus coarctatus (Mulsant and Rey), New Combination

(Figs. 36-40, 109)

Sellio coarctatus Mulsant and Rey, 1859: 106; 1860: 170 (Type Locality Hispaniola). Leng and Mutchler 1914: 461 (Hispaniola). Gebien 1938: 407 [444] (Hispaniola). Marcuzzi 1957: 129 (Hispaniola); 1962: 31 (in part, Hispaniola records only); 1984 : 82 (in part, Hispaniola records only). Garrido 2004b: 119 (in part, Hispaniola records only). Perez 2008: 113 (Hispaniola). Peck 2011a: 33 (in part, Hispaniola records only); 2016: 160 (in part, Hispaniola records only).

Sellio coarctatum; Blackwelder 1945: 525 (Hispaniola).

Diastolinus estebani Garrido, 2004a: 42 (Type Locality Hispaniola); 2007: 45 (Hispaniola). Perez 2008: 113 (Hispaniola). **New Synonymy.**

Diastolinus estebanii; Herrera-Uria *et al*. 2015: 95 (Hispaniola) (*lapsis calami*).

Sellio tibidens; Perez 2008: 113 (Hispaniola).

Type Material. Types not seen for *D. coarctatus*, though they are reported to be in the Chevrolat collection and the type locality is recorded as Saint-Domingue. Not found in the BMNH (M. Barclay, in lit), nor the Mulsant and Rey collection in Lyon (H. Labrique in. lit.). Possibly in the Obenthur collection in MNHN. The Garrido type for *D. estebani* is housed in MNHC and photographed in Garrido (2004a).

Other Material Examined. DOMIN. REP: Pedernales Prov. 10 km N. Cabo Rojo; 19AUG1988; thorn scrub, 30-45m; M.A. Ivie, T.K. Phillips, & K.A. Johnson (3 WIBF). DOMIN. REP: Pedernales Prov. 14 km N. Cabo Rojo; 19AUG1988; thorn scrub-trop.dry forest, 150 m; M.A. Ivie, T.K. Phillips, & K.A. Johnson (1 WIBF). REP.DOM. Pedernales Prov. Cabo Rojo; XII-28-1986; Doyen; coastal thorn scrub association (2 WIBF).

Diagnosis. Both males and females of this species can be distinguished from other Hispaniolan species by the combination of a robust, convex body, 8.8 mm long or longer, with costate elytra covered with golden setae almost equal to or longer than width of interstriae and the base of elytra sub-equal to pronotum width. Additionally the scutellum is short, mostly hidden and the width is more than two times the length. Male foretibiae are unarmed in this species.

Redescription (male). Length 8.8–9.2 mm, width 3.9–4.2 mm. Body (Fig. 36) black, except last three antennomeres reddish testaceous, last three antennomeres more testaceous, last antenomere almost golden; somewhat shining; convex, oblong shape; covered in relatively long yellow setae.

Head (Fig. 36) with epistoma evenly convex; punctures greater than diameter of ommatidia covering dorsal surface, evenly spaced, separated by less than one puncture diameter; setae 2X length of punctures. Labrum densely punctate, punctures smaller than punctures on head, separated by less than one puncture diameter apart. Antennae weakly clavate. Dorsal portion of eye circular; ventral portion somewhat ovate. Gular horns short, not prominent.

Pronotum (Fig. 37) widest at middle; apical margin slightly bisinuate; apical corners rounded, lateral margin widened from apex in anterior half, then sides rounded to base; base slightly wider than humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin, bead may be obscured somewhat by setae; heavily punctate, punctures equal diameter to punctures on head, closely spaced often less than or equal to puncture diameter apart on pronotal disc; yellow setae on pronotal disc, longer laterally, typically at least 2X length of puncture diameter. Hypomeron rugulose, punctate, setose. Prosternal process lanceolate, long, almost reaching mesoventrite, punctate, setose.

Scutellum (Fig. 37) short, mostly hidden, crescent shaped if visible. Elytra constricted in anterior one-third. Elytron gradually broadening from base to widest point, opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; strial

punctures deep, sometimes confluent; intervals convex, punctation minute. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite punctate, shining. Metaventrite short, punctate anterior border behind mesocoxae.

Leg surfaces densely setose and finely punctate. Femora expanded. Protibia narrow, expanding gradually distally; dorsolateral margin somewhat arcuate; posteroventral surface with stout spines in apical one-third; apex obliquely truncate, ringed by stout spines. Protarsus and mesotarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 1.5X width of tarsomere 4. Metatarsus narrow, about three-quarters as long as metatibia, without setose pads; first tarsomere more than 1.5X length of second.

Abdomal ventrites (Fig. 38) scattered with large punctation; ventrites 1-2 slightly concave medially, concavity not extending onto intercoxal process; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process; ventrites 2 and 3 laterally with row of heavy punctures on anterior edge, indistinct on medial concavity; ventrite 5 flattened medially, heavily punctate, posterior margin evenly rounded. Aedeagus (Fig. 39, 40) with basal piece and parameres strongly arched, equal to half of elytral length; parameres widest basally, narrowed apically; then expanding to widest point, just before apex, then rounded broadly at apex; parameres with slightly sinuate lateral margin, without upturned tips in lateral view.

Female. Length 8.8–9.5 mm, width 4.0–4.4 mm. Similar to male except protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex; ventrite 5 slightly convex.

Biology. Specimens have been taken in coastal thorn-scrub and tropical dry forest from elevations of 30-150 m above sea level.

Distribution. Hispaniola. The type locality is simply Saint-Domingue. All specimens examined are from Pedernales Province, Dominican Republic. This species seems to be restricted to the southern paleo-island (Fig. 109).

Diastolinus desecheo Hart and Ivie, New Species

(Figs. 41-45, 100, 110)

Type Material. HOLOTYPE: Male. PUERTO RICO; Desecheo Is.; 28-Mar.-61; J. R. Gorham./ OSUC 622882 (OSUC). PARATYPES (9 specimens): 1 male and 2 females with same label data as holotype, (OSUC 622881, 622883, 622885). P.R.: Desecheo Is.; 27-29-V-1965; Heatwole, Levins; & McKenzie. (5 males and 1 female, WIBF 035176 - 035178, 035180 - 035182).

Other Material Examined. P.R.: Desecheo Is.; 27-29-V-1965; Heatwole, Levins; & McKenzie/ WIBF 035179 (1 WIBF, specimen damaged).

Diagnosis. This species can be distinguished from most other Puerto Rico species by the large, elongate oval body and the anterior margin of the pronotal bead complete. It is similar in overall appearance to *D. victori*, but can be distinguished by the combination of

comparatively shallow elytral punctuation, the punctation on abdominal ventrites 2 and 3 shallow, and the male genitalia differ in form.

Description (male). Length 9.5–10.5 mm, width 4.2–4.5 mm. Body (Fig. 41) black, except antennomeres 1-8 reddish black, last 3 antennomeres testaceous; upper surface dull; elongate; widest on pronotum; moderately convex; scattered light colored setae, typically short.

Head (Fig. 41) widely transverse, somewhat flattened; punctures sub-equal in diameter to ommatidia covering dorsal surface, evenly spaced, separated by more than 1X puncture diameter posteriorly, spaced more closely anteriorly; setae sparse and short. Labrum densely punctate, punctures equal in size to punctures on head, closely spaced, shallow. Antennae weakly clavate. Dorsal portion of eye perfectly rounded; ventral portion of eye ovate. Gular horns short. Gular horns long, robust and very prominent (Fig. 76).

Pronotum (Fig. 42) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior half, then sides nearly parallel to base; basal width equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded (Fig. 100); punctate, puncture diameter sub-equal to punctures on head, spaced 2-3X diameters of puncture apart on pronotal disc; setae absent on disc, minute setae visible occasionally laterally. Hypomeron rugulose. Prosternal process tongue-like, shallowly punctate, with yellowish semi-erect setae.

Scutellum (Fig. 42) triangular, about 1.5X wider than long. Elytra constricted in anterior one-third. Elytron gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae shallowly impressed; strial small, shallow, not confluent; intervals broadly convex, punctation minute;. Seventh stria ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite very short, punctate anterior border behind mesocoxae.

Leg surfaces setose and finely punctate. Femora expanded. Protibia narrow basally, then gradually widened; posteroventral surface with stout spines in apical one-third; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Mesotarsus somewhat expanded, ventrally with golden, densely setose pads. Metatarsus narrow, about three-fourths as long as metatibia, without setose pads; first tarsomere 2.5X length of second.

Abdomenal ventrites (Fig. 43) finely punctate, white or yellow setae covering surface; ventrites 1-2 slightly concave medially, concavity extending onto intercoxal process; anterior border of ventrite 1, just behind hind coxae, with row of punctures barely extending onto intercoxal process, longitudinal rugulose areas posterior of punctures; ventrite 2-3 with row of shallow punctures on anterior edge, absent medially, longitudinal rugulose areas posterior of punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 44, 45) with basal piece and parameres strongly arched, about equal to fourth-sevenths of elytral length; parameres nearly parallel basally,

then slightly expanding, then sub-parallel until broadly rounded and converging at apex; parameres with slightly sinuate lateral margin, with upturned tips in lateral view.

Female. Length 10.0–10.6 mm, width 4.5–4.6 mm. Similar to male except protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Unknown.

Distribution. Desecheo Island (Puerto Rico).

Etymology. Named after the type locality, Desecheo Island (Fig. 110).

Diastolinus doyeni Hart and Ivie, New Species

(Figs. 46-50, 110)

Type Material. HOLOTYPE: Male. Coamo Sprs.; VIII.25.1919; ac: 5528./ WIBF 035400 (AMNH). PARATYPES (5 specimens): PR: Dorado, Rd.697; end, Coastal Strand; XII-21-1986 J. Doyen; & J.A. Santiago-Blay; scrub&forest assoc.(2 females, WIBF 035401 - 035402). PR:nr.1 Laguna; Tortuguero, NW Vega; Baja. XII-25-1986; Doyen & Santiago (1 female, WIBF 035403). PR: Bosque at Playa; de Dorado, Dorado; XII-25-1986 Doyen; & Santiago (1 male and 1 female, WIBF 035404 - 035405).

Diagnosis. This species can be distinguished from most other Puerto Rico species by the combination of the small, narrow body, the nearly glabrous abdominal ventrites, the normal gular horn, the presence of very few short setae on the upper surface, the width of the humeri equal to the base of the pronotum. This species resembles *D. tibidens* but males do not have armed front tibiae.

Description (male). Length 7.8–8.6 mm, width 3.2–3.7 mm. Body (Fig. 46) black, except last three antennomeres testaceous, labrum reddish; upper surface somewhat shining; narrow, elongate; widest on pronotum; moderately convex; scattered yellow setae typically short.

Head (Fig. 47) transverse, somewhat flattened; punctures sub-equal in diameter to ommatidia covering dorsal surface, evenly spaced, separated by more than 1X puncture diameter posteriorly, spaced more closely anteriorly. Labrum densely, shallowly punctate, punctures equal in size to punctures on head, closely spaced. Antennae weakly clavate. Dorsal portion of eye perfectly rounded; ventral portion of eye ovate. Gular horns short.

Pronotum (Fig. 47) widest at middle; apical margin broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior half, then sides rounded to base; basal width equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; finely punctate, puncture diameter sub-equal to punctures on head, spaced 2-5X diameters of puncture apart on pronotal disc; setae typically absent on disc, minute setae visible laterally, 1-2X puncture diameter in length. Hypomeron feebly rugulose. Prosternal process tongue-like, shallowly punctate, with few setae.

Scutellum (Fig. 47) triangular, about 2X wider than long. Elytra constricted in anterior one-third. Elytron gradually broadening from base to widest point opposite the posterior border of abdominal ventrite 1, then gently arcuate to apices; striae impressed; medial stria less costate than lateral stria; strial punctures deep, sometimes confluent

posteriorly; intervals broadly convex, punctation minute. Seventh stria ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite very short, punctate anterior border behind mesocoxae.

Leg surfaces setose and finely punctate. Femora expanded. Protibia narrow basally, then gradually widened; posteroventral surface with stout spines in apical one-third; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Mesotarsus somewhat expanded, ventrally with golden, densely setose pads. Metatarsus narrow, sub-equal in length to metatibia, without setose pads; first tarsomere 2X length of second.

Abdomenal ventrites (Fig. 48) 1-3 almost glabrous laterally, except punctation on anterior border of ventrites 1-3; ventrites 1-3 slightly concave medially, concavity not extending onto intercoxal process; anterior border of ventrites 1-3, just behind hind coxae, with row of heavy punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 49, 50) with basal piece and parameres strongly arched, about equal to one-half of elytral length; parameres narrowing evenly apically, then expanding to widest point, then converging towards apex, broadly rounded just before apex; parameres with slightly sinuate lateral margin, with upturned tips in lateral view.

Female. Length 7.8–8.3 mm, width 3.3–3.7 mm. Similar to male except protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Some specimens are associated with scrub forest.

Distribution. Puerto Rico (AMNH, WIBF) (Fig. 110).

Etymology. This species is named for John Doyen, a collector of the paratypes as well a prolific and outstanding worker on Tenebronidae.

***Diastolinus espoloni* Garrido**

(Figs. 51-55, 109)

Diastolinus espoloni Garrido, 2007: 46 (Type Locality Hispaniola). Caballer *et al.* 2012: 65 (Hispaniola).

Sellio tibidens (not Quensel 1806); Marcuzzi 1962: 31 (in part, Hispaniola records only); 1984 : 82 (in part, Hispaniola records only). Garrido 2004b: 119 (in part, Hispaniola records only).

The 1962 *S. tibidens* record is placed here based on Marcuzzi's statement (1962) that the male tibiae are armed, as this is the Hispaniolan species with the male tibiae armed that most closely resembles *S. tibidens*, which does not occur on Hispaniola. We have not seen the voucher, reportedly in the BMNH. The other records are simple repeats.

Type Material. Types not seen, from Carretera de Duverje a Jimani, km 6-7, Pedernales Province. Deposited in EPRL.

Other Material Examined. REP.DOM. Pedernales Prov. 14 km N. Cabo Rojo; 19AUG1988; thorn scrub- trop.dry forest, 150 m; M.A. Ivie, T.K. Phillips, & K.A. Johnson (1 WIBF). REP.DOM. Pedernales Prov. 23km N. Cabo Rojo; 1200'; XII-31-1986; Doyen & Santiago (20 WIBF). REP.DOM. Pedernales Prov. 25.5 km N. Cabo

Rojo; 25-VI-1992; P. Skelley (9 FSCA). REP.DOM. Pedernales Prov. 2km N. Pedernales; 22AUG1987; L. F. Armas; under rocks (1 WIBF). REP.DOM. Pedernales Prov. 22 km N. Cabo Rojo; 395m; 21AUG1992; D. Sikes & J. Brodzinsky (1 WIBF).

Diagnosis. This species is most easily distinguished by the sub-rugose punctures on the pronotum antero-lateral of the disc (Fig. 52) and the armed male tibiae (Fig. 51).

Redescription (male). Length 8.1–9.5 mm, width 3.4–4.0 mm. Body (Fig. 51) black, except after antennomere 4, gradually each subsequent antennomere is more testaceous, last 3-4 antennomeres fully testaceous; somewhat shining; oblong; moderately convex; scattered white to golden setae typically short.

Head (Fig. 51) transverse, somewhat flattened; punctures greater than diameter of ommatidia covering dorsal surface, evenly spaced, separated by one puncture diameter posteriorly, separated by less than one puncture diameter anteriorly; setae approximately length of posterior punctures scattered over surface. Labrum densely punctate, punctation confluent, generally smaller than punctures on head, separated by less than one puncture diameter apart. Antennae weakly clavate. Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Figs. 51, 52) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior two-fifths, then sides nearly parallel to base; basal width sub-equal to humeri; base equal width to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; punctate, puncture diameter on disc equal to punctures on head, spaced less than or equal to

diameter of puncture apart on pronotal disc; punctures (Fig. 52) denser and sub-rugose antero-laterally, sparse short yellow setae present throughout. Hypomeron feebly rugulose, punctate shallowly and sparsely. Prosternal prosternal process lanceolate, long, almost reaching mesoventrite, punctate and setose.

Scutellum (Fig. 51) small, sub-triangular, almost 3X as wide as long. Elytra constricted in anterior one-third. Elytron gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; strial punctures deep and not confluent; intervals convex, punctation minute, even. Seventh stria ending in lateral stria posterior to humeral angle.

Mesoventrite punctate, somewhat rugulose, shining. Metaventrite short, rugulose, punctate anterior border behind mesocoxae.

Leg surfaces setose and finely punctate. Femora expanded. Protibia narrow basally, then suddenly expanded midway into large, triangular spine on posterventral surface (Fig. 51); anterodorsal surface somewhat arcuate; stout spines after major spine; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about three-fourths as long as metatibia, without setose pads; first tarsomere about 1.5X length of second.

Abdominal ventrites (Fig. 53) finely punctate; ventrites 1-2 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process; ventrites 2-3 with row of heavy punctures

on anterior edge; ventrite 3 with slight medial concavity anteriorly only; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 54, 55) with basal piece and parameres strongly arched, about one-half of elytral length; parameres widening gradually in basal two-thirds, then flared suddenly before apex to a broad, straight apical margin; expanded area slightly concave; parameres with slightly sinuate lateral margin, undulate with slight upturned apical margin in lateral view.

Female. Length 8.9–9.4 mm, width 4.0–4.2 mm. Nearly identical to male except protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Not much is known about this species. Specimens have been taken at elevations from 120 – 395 m.

Distribution. Hispaniola. Pedernales Province, Dominican Republic (Fig. 109).

Diastolinus gladiator (Garrido), New Combination

(Figs. 56-60, 109)

Sellio gladiator Garrido, 2004b: 120 (Type Locality Hispaniola). Perez 2008: 113 (Hispaniola). Herrera-Uria *et al*. 2015: 97 (Hispaniola).

Selio gladiator Garrido 2004b: 121 (*lapsis calami*). Caballer *et al.* 2012: 65 (Cuba [error]).

Type Material. Types not seen. Holotype from Cabo Rojo, Pedernales Province, Dominican Republic (MNHC).

Other Material Examined. REP.DOM. Pedernales; Prov. Cabo Rojo; XII-28-1986 Doyen; & Santiago/ thorn scrub association; under stones (14 WIBF). REP.DOM. Pedernales; Prov. Cabo Rojo; XII-31-1986 J. Doyen; & J. Santiago (1 WIBF). REP.DOM. Prov. Pedernales; Cabo Rojo; 08-09SEPT1988; in pool & at light, 0-10m; M.A. Ivie, T.K. Phillips; & K.A. Johnson colrs. (2 WIBF). REP.DOM. Prov. Pedernales; Cabo Rojo, 18-23AUG1988; in pool & at light, 0-10m; M.A. Ivie, T.K. Phillips; & K.A. Johnson colrs. (5 WIBF). REP.DOM. Prov. Pedernales;10 km N. Cabo Rojo30-45m; 19AUG1988, thorn scrub; M.A. Ivie, T.K. Phillips; & K.A. Johnson colrs. (1 WIBF). REP.DOM. Prov. Pedernales; 9.5 km N. Cabo Rojo, 33m; 18°00.042'N, 71°38.793'; 08AUG1999, lights and beating; M.A. Ivie & K.A. Guerrero (1 WIBF). REP.DOM. Cabo Rojo; Prov. Pedernales; hotel, 21AUG1992; D. Sikes & J. Brodzinsky (1 WIBF). REP.DOM.; Prov. Pedernales; Cabo Rojo, 08JULY1993; u.v. light, D. S. Sikes; & R. P. Rosenfield (1 WIBF). DOMINICAN REPUBLIC; Pr. Pedernales, 10.2 km N.; Cabo Rojo, 9-VII-1996; M.C. Thomas (3 FSCA). DOMINICAN REPUBLIC; Pedernales Prov.; Cabo Rojo 21-V-1992; M.C. Thomas (2 FSCA). Dominican Republic; orchid plants; OKD, FDM/ 08/7/1963; Miami 24955; 63 20094 (2 USNM).

Diagnosis. This species can be distinguished from other species by the dull upper surface with short yellowish pubescence and the elytra not distinctly costate.

Redescription (male). Length 6.1–7.1 mm, width 2.8–3.1 mm. Body (Fig. 56) dull, matte black, except antennae reddish, last three antennomeres most testaceous; ovate-oblong; widest at pronotum, convex; scattered light colored setae covering dorsal surface.

Head (Fig. 56) with epistoma evenly convex; epistomal margin weakly emarginate; punctures sub-equal to diameter of ommatidia covering dorsal surface, posteriorly separated by 2X puncture diameter, spaced less than puncture diameter apart on anterior margin; setae 3X length of punctures. Labrum densely punctate. Antennae clavate. Dorsal portions of eye circular, ventral portion somewhat oblong. Gular horns short, not prominent.

Pronotum (Fig. 56) widest in anterior third; apical margin evenly, broadly emarginate; apex width sub-equal to basal width; apical corners rounded, lateral margin widened from apex in anterior one-third, then sides arcuate, slightly narrowing towards base; basal width greater than humeri; basal margin feebly bisinuate; dorsal surface convex; all margins narrowly beaded, except obsolete at middle of anterior margin; minutely punctate, puncture diameter sub-equal that of punctures on head, spaced 2-3X diameters of puncture apart on pronotal disc; setae typically rubbed off pronotal disc, fine light color setae typically 2X puncture diameter in length remain laterally. Hypomeron feebly rugulose, almost impunctate. Prosternal process lanceolate, punctate, with yellowish semi-erect setae at least 2X length of puncture diameter.

Scutellum (Fig. 56) small, triangular, slightly wider than long. Elytra constricted in anterior one-third. Elytron broadening from base to widest point opposite metaventrite, then evenly arcuate to apices; striae not impressed; strial punctures shallow; intervals flat, punctation even, equal to strial punctation. Seventh stria ending in lateral stria slightly posterior to humeral angle.

Mesoventrite not rugulose, punctate and setose. Metaventrite short, punctate anterior border behind mesocoxae, punctation shallow.

Leg (Fig. 57) surfaces setose and somewhat heavily punctate. Femora expanded. Protibia narrow, expanding greatly in distal two-thirds; dorsolateral margin nearly straight, row of stout spines in apical two-thirds; posteroventral surface asperous, stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 3 widest, more than 2X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about half as long as metatibia, without setose pads; first tarsomere length sub-equal to length of second.

Abdominal ventrites (Fig. 58) minutely punctate; ventrites 1-3 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of small punctures not extending onto intercoxal process; ventrites 2 and 3 laterally with feeble longitudinal rugulose areas, indistinct on medial concavity; ventrite 5 concave medially just before posterior margin. Aedeagus (Fig. 59, 60) with basal piece and parameres arched, less than half of elytral length; parameres parallel for basal half, then widened broadly apically, then narrowed again to a bluntly rounded apex; parameres with sinuate lateral margin, undulate with slightly upturned tips in lateral view.

Female. Length 6.8–7.2 mm, width 2.9–3.2 mm. Similar to male except body typically larger, more robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly flattened medially; ventrite 5 only slightly concave.

Biology. Adults have been associated with thorn scrub, found under stones, collected from a swimming pool, and attracted with lights. Two specimens were intercepted in an orchid shipment to Miami. Specimens have been found at elevations ranging from 0-45 m above sea level.

Distribution. Hispaniola. Pedernales Province, Dominican Republic (Fig. 109).

Diastolinus tibidens (Quensel), New Combination

(Figs. 61-67, 110)

Sellio tibidens Quensel, 1806: 147 (Type Locality Virgin Islands). Mulsant and Rey 1859: 109; 1860: 173 (Antilles). Leng and Mutchler 1914: 460 (Antilles). Wolcott 1936: 234 (Puerto Rico). Gebien 1938: 407 [444] (Antilles). Blackwelder 1945: 525 (Puerto Rico?). Wolcott 1951 : 326 (Puerto Rico). Marcuzzi 1957 : 129 (St. Thomas, Puerto Rico); 1962 : 31 (in part, St. Thomas records only); 1984 : 82 (in part, Puerto Rico, St. Thomas records only). Garrido 2003: 27 (Puerto Rico); 2004b: 119 (in part, St. Thomas, Puerto Rico records only). Valentine and Ivie 2005: 279 (Guana).

Sellio probably *tibidens* Wolcott 1923: 96 (Puerto Rico).

Type Material. The holotype is mistakenly labeled “Africa,” here corrected to St. Thomas (NHRS-JLKB000041162) (Fig. 61, 62). Photographed by Johannes Bergsten, NHRS. Made available by NHRS under Creative Commons Attribution 4.0 International Public License (CC-BY 4.0).

Other Material Examined. VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; on Ridge Trail; 25 AUG 1995, M.A.; Ivie & M. Dunnington (47 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 24 AUG 1995, at light; M.A. Ivie &; Z.M. Hillis colrs (10 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; Diedrick's shack; 06 SEP 1996; A. Poponi. Berlese (2 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 17 FEB 1997; A. Poponi colr; flight intercept trap (3 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; North side trail; 23 AUG 1996; A. C. Poponi, F.I.T. (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; northside hike trail; 09 AUG 1996, FIT; A. C. Poponi colr (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 28 NOV 1995, F.I.T.; Z.M. Hillis colr. (1 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 28 NOV 1995; Z.M. Hillis colr. (2 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; 28 NOV-09 FEB 1996; Z.M. Hillis colr; flight intercept trap (3 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; Northside, trail; 09 AUG 1996; Z.M. Hillis, F.I.T. (6 WIBF). VIRGIN IS: Buck Is.; B.I. Reef Nat. Mon; trail at 340'; 25 AUG 1995, uv light; Berlese under Bursera (1 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08NOV1994-19JAN1995; flight intercept#15; 340ft., Z.M. Hillis (1 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 19JAN-30 MAR 1995; flight intercept#15; 340ft., Z.M. Hillis (3 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 30 MAR-29 JUNE 1995; flight intercept#15; 340ft., Z.M. Hillis (5 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; SEP-OCT 1993; flight intercept#14; 140ft., Z.M. Hillis (1 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 08-29 JAN 1993; flight intercept#15; 340ft., Z. Hillis (2 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.; 01-31MAR 1993; flight intercept#15; 340ft., Z. Hillis (2 WIBF). VIRGIN IS: Buck Is.; Buck Is. Reef N.M.;

08JAN 1993. general; coll. VIBFP colrs (1 WIBF). St. Croix; V.I., W.I.; H.A.Beatty (1 WIBF). St. Croix VI; HABeatty (2 WIBF). VIRGIN IS: St. Croix; Christiansted; Spring Gut, 15FEB; 1983. J.A. Yntema; under trash (1 WIBF). VIRGIN IS: St. Croix; Estate Cotton Garden; S.E.T.I. Station; 12JAN1993. R.S.Miller; night collecting (9 WIBF). VIRGIN IS: St. Croix; Estate Cotton Garden; S.E.T.I. Station; 12JAN1993. at night; D.S. Sikes colr (8 WIBF). VIRGIN IS: St. Croix; Estate Cotton Garden; nr. S.E.T.I. Station; 11JAN1993. D.S. Sikes; grass/xeric litter (1 WIBF). VIRGIN IS: St. Croix; Est. Jerusalem &; Figtree Hill, MARCH; 1993. B.Wilhelm (1 WIBF). VIRGIN IS: St. Croix; Est. Cotton Garden; nr. Sugarloaf Hill; 11JAN1993, D.S. Sikes (1 WIBF). VIRGIN IS: St. Croix; Est. A Piece of Land; East End, 09JAN1993; VIBFP colrs (3 WIBF). F5D18; St. Croix, V.I.; III.1.1925 (2 AMNH). VIRGIN IS: St. Thomas; Estate Nazareth. Sea; Horse-Secret Harbor; 02JAN1993. K.B.Reeves; & D.H.Chadwick colrs (4 WIBF). VIRGIN IS: St. Thomas; Estate Nazareth. Sea; Horse Cottages; 01-04JAN1993. 120ft; VIBFP colrs (2 WIBF). VIRGIN IS: St. Thomas; Est. Nazareth. 40ft; 01JAN1993-06JUL1994; VIBFP colrs; flight intercept#9 (2 WIBF). VIRGIN IS: St. Thomas; Est. Nazareth. 40ft; 06JULY-26JULY1994; Ivie, Becker & Bucklin; flight intercept#9 (1 WIBF). Charlotte Amilia; St. Thomas, D.W.I.; June 2, 1911 (1 AMNH). F.5134c; St. Thomas, V.I.; III.12.1925 (1 AMNH). F5D11; St. Thomas, V.I.; II.25.1925 (2 AMNH). F5029; St. Thomas, V.I.; II.11.1925 (1 AMNH). St. Thomas/ Sellio tibidens; Quens. (1 NHMB). St. Thomas/ tibidens; Quens.; det. Marcuzzi (1 HNHM). St. Thomas/ coll R. Oberthür; ex coll Deyrolle/ Sellio; tibidens Sch/ tibidens; det. Marcuzzi (1 HNHM). Ins:Amer; Smidt; Mus: Sc&J.L. (3 ZMUC). St. Thomas/ Coll Rosenberg (1 ZMUC). M.

Cameron; Journal; W.I. 1053/ W. INDIES; Prickly Pear Is.; 9August1908; Dr. M. Cameron; B.M. 1936-555 (1 WIBF). BRITISH VIRGIN IS; Jost Van Dyke; White Bay; 23-24 JULY 1994; M. A. Ivie colr. (1 WIBF). BRITISH VIRGIN IS; Guana Island; Hotel to Palm Ghut; 20 OCT 2002; M. A. Ivie, at night (1 WIBF). BR.VIRGIN IS: Tortola; East End. Queen; Elizabeth Bridge; 23OCT1992. under bark; M. A. Ivie colr. (2 WIBF). VIRGIN IS: St. John; Estate Concordia; Ramshead Pt. Trail; 18-19JULY1994, leaf; litter, M.S. Becker (9 WIBF). VIRGIN IS: St. John; Est. Caneel Bay; CaneelBay to LindPt; 0-75m, 02JAN1993; Ivie, Miller & Sikes (1 WIBF). VIRGIN IS: St. John; Cruz to Lind Pt; 02JAN1993. at night; Ivie, Miller & Sikes (4 WIBF). VIRGIN IS: St. John; Rams Head, nr. Point; 07FEB1986; W.B. Muchmore colr (2 WIBF). Lameshur Bay; St. John, Virgin I.; Jan.4,1966; coll.R.T.Bell –A (1 WIBF). CulebraVI; Mch 4. 06; WheelerColl (1 AMNH). CulebraVI; Mch 5. 06; WheelerColl (5 AMNH). Aguirre,P.R.; Acc#282-1923/ G.N. Wolcott; Coll (2 AMNH). Ponce, P.R.; July20-22,'14 (2 AMNH). Guanica; I.12.15. P.R.(1 AMNH). Coamo Sprs.P.R.; June 5-7, 1915 (1 AMNH).

Diagnosis. This species can be distinguished from other species by the combination the base of the elytra, including humerus, much narrower than pronotum, the elytra costate with large strial punctation; the scutellum large, distinct and triangular and the body less than 7.5 mm in length. Males of this species are the only *Diastolinus* species that the profemur has a small basal spine on the posteroventral surface that nearly meets the large protibial spine when the leg is retracted.

Note. This species is widespread throughout Puerto Rico and the Virgin Islands, but there seems to be little difference between islands.

Redescription (male). Length 6.3–7.3 mm, width 2.4–3.0 mm. Body (Fig. 63) black, except last three antennomeres testaceous; somewhat dull on upper surface, somewhat shining on ventral surface; oblong; widest on pronotum, moderately convex; scattered white to golden setae typically short.

Head (Fig. 61, 63) with epistoma evenly convex; punctures greater than diameter of ommatidia covering dorsal surface, evenly spaced, separated by one puncture diameter posteriorly, separated by less than one puncture diameter anteriorly; setae 2-3X length of punctures. Labrum densely punctate. Antennae clavate. Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short.

Pronotum (Fig. 63) widest at anterior third; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior one-third, then sides narrowing slightly to base; base wider than humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; punctate, puncture diameter equal to punctures on head, spaced 2-3X diameters of puncture apart on pronotal disc; setae 4X puncture diameter in length. Hypomeron feebly rugulose, punctate shallowly and sparsely. Prosternal process somewhat convex, tongue-like, punctate.

Scutellum (Fig. 63) triangular, about 2X wider than long. Elytra constricted in anterior one-third. Elytron gradually broadening from base to widest point opposite abdominal ventrite 2, then evenly arcuate to apices; striae heavily impressed; strial punctures deep and not confluent; intervals convex, punctation minute, even. Seventh stria ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Figs. 61, 63) surfaces setose and finely punctate. Femora expanded; profemur especially inflated, anterodorsal margin arcuate; small basal spine on posteroventral surface, nearly meeting large protibial spine when leg retracted (Fig. 64). Protibia narrow basally, then suddenly expanded in apical third into large, triangular spine on posterventral surface (Figs. 63, 64); stout spines after major spine; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about two-thirds as long as metatibia, without setose pads; first tarsomere more than 2X length of second.

Abdominal ventrites (Fig. 65) shallowly punctate; ventrites 1-2 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process, longitudinal rugulose areas posterior of punctures; ventrites 2-4 with row of heavy punctures on anterior edge, longitudinal rugulose areas posterior of punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 66, 67) with basal piece and parameres strongly arched, more than two-thirds of elytral length; parameres sub-parallel for basal half, then widened broadly apically, then broadly rounded to apex; expanded area slightly concave; parameres with sinuate lateral margin, undulate with slightly upturned tips in lateral view.

Female. Length 6.5–7.4 mm, width 2.5–3.1 mm. Similar to male except protarsi and mesotarsi not expanded. Abdominal ventrites 1-2 slightly convex medially; ventrite 5 slightly convex.

Biology. Adults have been collected in leaf litter, under trash, under bark, on the ground at night and at light, as well as FIT and Berlese samples. Specimens have been found at elevations ranging from 0-104 m above sea level.

Distribution. Puerto Rico, Culebra* (AMNH), St. Thomas, St. John* (WIBF), Jost van Dyke (WIBF), Tortola* (WIBF), Guana, Prickly Pear Is.* (Virgin Gorda, BMNH, WIBF), St. Croix* (AMNH, WIBF), Buck Is.* (St. Croix, WIBF) (Fig. 110).

Diastolinus vaderi Hart and Ivie, New Species

(Figs. 68-72, 109)

Type Material. HOLOTYPE**:** Male. HAITI: Dept. Sud-Oueste; Parc National La Visite; Morne La Visite 2100m; 12-V-1984 M. C. Thomas/ Sellio tibidens Quensel; det. C. A. Triplehorn 01/ WIBF 035539 (FSCA). PARATYPES (16 specimens): 11 females and 5 males. 4 specimens sharing the same label data as the holotype (WIBF 035540, WIBF 035541, OSUC 607292, OSUC 607294) (2 WIBF, 2 OSUC). HAITI: Dept. Sud-Oueste; Parc National La Visite; vicinity park hdqtrs. 1880m. 18-V-1984; M. C. Thomas/ WIBF 035542 (1 FSCA). HAITI: Dept. Sud-Oueste; Parc National La Visite; Morne La Visite, S.slope; 2040-2150m. 23-V-1984; coll. M. C. Thomas / OSUC 607293 (1 OSUC). Refuge, 5500’, 22 km.; SE. Fond Verrettes; Haiti vii-20-’56; B. & B. Valentine/ Foret des Pins; forest, beating / (OSUC 607295-607302) (8 OSUC). Refuge, 5500’, 22 km.; SE.

Fond Verrettes; Haiti 18-VII-’56; B. & B. Valentine / Foret des Pins; Hardwood cloud; forest, beating / (OSUC 607303, OSUC 607304) (2 OSUC).

Diagnosis. This species is most easily distinguished by combination of the smooth upper surface that is shining, glossy, and without setae, the base of the pronotum much wider than the humeri, the elytra with large, deep punctuation, and the male foretibiae armed with a single distinct spine.

Description. Length 7.5–9.0 mm, width 3.0–3.8 mm. Body (Fig. 68) black, except antennomeres reddish brown, with at least last 4 antennomeres fully testaceous, tarsi reddish; broadly convex; base of pronotum widest point of body; dorsal surface smooth, shining, glossy; lacking setae.

Head (Fig. 69) with epistoma evenly convex; punctures less than diameter of ommatidia covering dorsal surface, separated by at least 2-3X puncture diameters apart posteriorly, spaced more closely anteriorly; setae almost entirely absent, at most a few yellow short setea laterally. Labrum with some confluent punctation antero-laterally, medial area with fine, rugulose almost impunctate surface. Antennae weakly clavate. Dorsal and ventral portions of eye roughly equal in size and shape, separated by canthus less than one-fourth of eye diameter. Palps large. Gular horns short, not prominent.

Prothorax (Fig. 69) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior two-fifths, then sides nearly parallel to base; basal width greater than humeri; base equal width to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; minutely punctate; disc slightly

impressed, puncture diameter on disc equal to punctures on head, spaced less 1-2X diameters of puncture apart on pronotal disc. Hypomeron feebly rugulose, punctate shallowly and sparsely. Prosternal prosternal process lanceolate, punctate and setose.

Scutellum (Fig. 69) triangular, 2X as wide as long. Elytra (Fig. 68) constricted in anterior one-third. Elytron gradually broadening from base to widest point opposite abdominal ventrite 2, then evenly arcuate to apices; striae not impressed; strial punctures large, deep and not confluent; intervals broad, not convex, punctation minute, sparse. Seventh stria ending in lateral stria just posterior to humeral angle. Eighth strial punctation almost absent in anterior one-third of elytra.

Mesoventrite punctate, somewhat rugulose, shining. Metaventrite short, rugulose, hind border of mesocoxae punctate.

Leg surfaces shining, finely punctate. Femora expanded; profemora especially inflated, with an arcuate anterodorsal margin. Protibia narrow basally, then suddenly expanded midway into large, triangular spine on posterventral surface, narrowed slightly apically after spine; anterodorsal surface somewhat arcuate; stout spines after major spine; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 3X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Metatarsus narrow, about two-thirds as long as metatibia, without setose pads; first tarsomere 2X length of second.

Abdominal ventrites (Fig. 70) finely punctate, sparesly setose; ventrites 1-4 with longitudinal rugulose areas laterally; ventrites 1-2 slightly concave medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures not extending onto intercoxal process; ventrites 2-3 with row of heavy punctures on anterior edge; ventrite 3 with slight medial concavity anteriorly only; ventrite 5 slightly concave medially, posterior margin evenly rounded. Aedeagus (Fig. 71, 72) with basal piece and parameres strongly arched, at least two-thirds elytra length; parameres gradually expanding distally in basal one-half, then flared suddenly before converging steeply at first, then gently rounded at apex; expanded area slightly concave; lateral margin of parameres sinuate, slight upturned apical margin in lateral view.

Female. Length 8.0–9.0 mm, width 3.5–3.8 mm. Nearly identical to male except femora not as expanded, only slightly expanded, protarsus and mesotarsus with tarsomere 4 sub-equal to tarsomeres 1-3. Abdominal ventrites 1-3 slightly convex medially.

Biology. This species is unique in the genus in being found at high elevations. Specimens have been taken beating in forests at elevations from 1880-2150m, high elevations compared to most *Diastolinus* species that are found at or slightly above sea level.

Distribution. Hispaniola. Department Sud-Oueste, Haiti (Fig. 109).

Etymology. This species is named for the infamous Darth Vader because *D. vaderi* has a shiny black head and pronotum that bear a striking resemblance to the helmet of the fictional “Star Wars” character.

Diastolinus victori Garrido

(Figs.73-79, 110)

Diastolinus elongatus Marcuzzi, 1977: 15 [junior primary homonym of *Diastolinus elongatus* Marcuzzi, 1976] (Type locality Puerto Rico, Isla Magueyes, Isla Cueba (also known as Isla Cueva), Caja de Muertos. Garrido 2002: 226 (Isla Magueyes, Isla Cueba (mistakenly rendered as "Culebra'" a totally different island), Caja de Muerto [sic], Puerto Rico). Marcuzzi 2002: 399.

Diastolinus victori Garrido, 2002: 39 (Isla Magueyes, Puerto Rico). Replacement name for *Diastolinus elongatus* Marcuzzi, 1977. Garrido 2003: 27 (Isla Magueyes); 2004a: 44. Peck 2005: 152 (in part, Puerto Rico, Mona records only).

Diastolinus marcuzzi Garrido 2003: 27 (*lapsus calami*)

Marcuzzi (2002) is somewhat confused, indicating that this description is really pertaining to his Cuban *D. elongatus* of 1976 (now *Xerolinus).* However, we have examined specimens from both type series, and this is simply not correct, as they are distinctly different, and do not even belong to the same genus.

Type Material. Holotype not examined (MSNG). PARATYPE: 700/ Puerto Rico; I. Magueyes; La Parguera/ 10.9.1963. Nr.700; P.W.Hummelinck/ *Diastolinus elongatus* Marc./ on red bordered paper PARATYPUS 1977 *Diastolinus elongatus* Marcuzzi/ WIBF 035145 (HNHM). PARATYPE: Caja de Muertos, P.R.; March 22-23, 1935; Coll: R.Bonilla/ on red bordered paper PARATYPUS 1977 *Diastolinus elongatus* Marcuzzi/ WIBF 035144 (HNHM). PARATYPE: 701A Puerto Rico, Parguera, Isla Cueva; NW

(limestone detritus), 11.IX.1963/ on red paper PARATYPUS/ Brit.Mus.; 1973-207/ *Diastolinus elongatus* det G. Marcuzzi 1972/ WIBF 035137 (BMNH).

Other Material Examined. Puerto Rico: Guanica; For.Res. 26SEPT1987; M.A.Ivie colr.33m; beating, thornsrub (4 WIBF). Puerto Rico: 1 mi S. Puente Las Vegas; N. of Yavco, 25APR1959, M.W.Sanderson (1 WIBF). Puerto Rico: Guanica Native Forest; April 1999; M.A.Garcia,GBN4 (1 WIBF). Puerto Rico: Guanica Forest, Ballena trail, beating; Specimen ID: 4248; Gino Nearns, 26JULY2004 (1 FSCA). Puerto Rico: Reserva Forestal; Guanica 6mi SE Guanica; XII-24-1986; J.Doyen & J.Santiago (6 WIBF). Puerto Rico: Guanica National Forest, near coast; 10November1990; Coll. H.Hanake/ From fallen rotten; branch of; Gumbo-Limbo (8 NMNH). Puerto Rico: Punta Melones, El Combate; 17˚58'N,67˚13'W; 01JULY2008/ W. E. Steiner; J. M. Swearington; O. H. Garrido; A. R. Perez-Asso; collectors (15 NMNH). Puerto Rico: Beach east of Punta Ventana; 17˚57'N,66˚49'W; 29JUNE2008/ W. E. Steiner; J. M. Swearington; O. H. Garrido; A. R. Perez-Asso; collectors (6 NMNH). Puerto Rico: Guanica; 1.12.1915 (1 AMNH). Guanica St.For.; P.R. 11-I-68; F.Fisk collr. (8 OSUC).

Diagnosis. This species can be distinguished from most other Puerto Rican species by the large, elongate body. It is similar in overall appearance to *D. desecheo,* but can be distinguished by the combination of deeper elytral punctuation, the punctation on abdominal ventrites 2 and 3 larger and deeper, and the male genitalia differ in form.

Redescription (male). Length 9.3–10.2 mm, width 3.8–4.2 mm. Body (Fig. 73) black, except last three antennomeres testaceous; upper surface dull; elongate; widest on pronotum; moderately convex; scattered yellow setae typically short.

Head (Fig. 75) widely transverse, somewhat flattened; punctures sub-equal in diameter to ommatidia covering dorsal surface, evenly spaced, separated by more than 1X puncture diameter posteriorly, spaced more closely anteriorly; setae 2X length of punctures, at least laterally. Labrum densely punctate, punctures equal in size to punctures on head, closely spaced. Antennae weakly clavate. Dorsal portion of eye perfectly rounded; ventral portion of eye ovate. Gular horns long, robust and very prominent (Fig. 76).

Pronotum (Fig. 75) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior half, then sides nearly parallel to base; basal width equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; punctate, puncture diameter equal to punctures on head, spaced 2-3X diameters of puncture apart on pronotal disc; setae sometimes rubbed on disc, visible laterally, 1-2X puncture diameter in length. Hypomeron feebly rugulose, punctate shallowly. Prosternal process tongue-like, punctate, with yellowish semi-erect setae.

Scutellum (Fig. 73) triangular, about 2X wider than long. Elytra (Fig. 73) constricted in anterior one-third. Elytron gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; strial punctures deep and not confluent; intervals broadly convex, punctation minute anteriorly, not visible posteriorly;. Seventh stria ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite very short, punctate anterior border behind mesocoxae.

Leg surfaces setose and finely punctate. Femora expanded. Protibia narrow basally, then gradually widened; posteroventral surface with stout spines in apical one-third; apex obliquely truncate, ringed by stout spines. Protarsus and mesotarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Metatarsus narrow, about three-fourths as long as metatibia, without setose pads; first tarsomere 2.5X length of second.

Abdomenal ventrites (Fig. 77) finely punctate, white or yellow setae covering surface; ventrites 1-3 slightly concave medially, concavity not extending onto intercoxal process; anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process, longitudinal rugulose areas posterior of punctures; ventrites 2-3 with row of heavy punctures on anterior edge, longitudinal rugulose areas posterior of punctures; ventrite 5 concave medially, posterior margin evenly rounded. Aedeagus (Fig. 78, 79) with basal piece and parameres strongly arched, about equal to two-thirds of elytral length; parameres narrowing evenly apically, then expanding to widest point, then converging towards apex, broadly rounded just before apex; parameres with slightly sinuate lateral margin, with upturned tips in lateral view.

Female. Length 9.5–10.6 mm long, width 3.9–4.4 mm. Similar to male except protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Specimens have been taken beating thorn-scrub and from a fallen branch of Gumbo Limbo [*Bursera simaruba* (L.) Sargent, Burseraceae].

Distribution. Puerto Rico, Mona, Isla Magueyes, Isla Cueva, Caja de Muertos (Fig. 110).

"ctesicles" Species-Group

Diagnosis. This species-group can be distinguished by the combination of the small size (4.8 – 6.5 mm in length) and the body entirely covered in large, evenly spaced punctures. Two of the species formerly belonged to the genus *Ctesicles*, now a synonym of *Diastolinus* (Ivie and Hart 2016). These species almost certainly belong to the same lineage as they are especially distinct from the other *Diastolinus* species, however, they share all of the characters with the larger species that define the genus. The "ctesicles" species-group is distributed in the Lesser Antilles from Martinique south to Grenada (Fig. 108).

Diastolinus hoppae Hart and Ivie, New Species

(Figs. 80-85, 112)

Ctesicles insularis; Marcuzzi 1977: 25 (in part, Martinique records only). Marcuzzi 1984: 79 (in part, Martinique records only). Peck 2010: 46 (in part, Martinique records only). Peck 2011b:29 (in part, Martinique records only); 2016: 159 (in part, Martinique records only).

Marcuzzi (1977) lists three specimens of *C. insularis* in Naturalis, Leiden to anchor this record, but two of these specimens are actually in Marcuzzi's collection in Genoa (ACRONYM). We have examined those and they are not *C. insularis* but are conspecific

with *D. hoppae*. The specimens are actually not from the island of Martinique, but from Martinique's satellite island, Îlet Hardy, so, strictly speaking, the Martinique records are errors. Although this record seems to belong here, the Îlet Hardy material is not included in the type series.

Blapstinus (*Diastolinus*) n.sp. Ivie 2009: 68.

Blapstinus undescribed species Peck 2016: 159.

Type Material. HOLOTYPE: Male. ST. LUCIA: Louvet Beach; 13.9608°N, 60.8786°W; 05 JULY 2009; K.J. Hopp/ WIBF 035596 (from WIBF, deposited in NMNH). PARATYPES (92 specimens): 30 females and 23 males with the same label data as the Holotype (WIBF 035597-035643, WIBF 035451, WIBF 034911-034915). ST. LUCIA:; Edmunds For. Res. 521m; 13.84007°N, 60.99821°W; 06 MAY 2009, brlse strmlitr; I.A. Foley and R.C. Winton/ WIBF 035644 (1 male, WIBF). ST. LUCIA:; Micoud Dist.; Fond Bay Beach, 1m; 13.83165°N, 60.89300°W; 29 APRIL 2009; I.A. Foley/ WIBF 035645 (1 male, WIBF). St. Lucia; gros-ilet/ 11.4.78; F. Chalumeau (4 females and 6 males, from HNHM, WIBF 035646 – 035655). St. Lucia, W. I.; Vieux Fort, 28-V-; 1987, R. E. Woodruff; sand dunes, at night (13 females and 14 males, OSUC 0404538 – 0404564, OSUC).

Other Material. MARTINIQUE, Islet Hardy; W, 11.II.1964/ Ctesicles insularis Champ. (2 MSNG).

Diagnosis. This species can be distinguished by its small size (6.5 mm or less), the large punctures covering the entire body surface, the upper surface covered with yellow

pubescence, and the relatively shallow strial puncation that rarely interrupts or overflows onto the interstria.

Description (male). Length 4.8–6.0 mm, width 1.9–2.3 mm. Body (Fig. 80) black, except antennae ptitchy red, last 3-4 antennomeres testaceous, sometimes tarsi reddish; upper surface dull, venter weakly shining; ovate-oblong; moderately convex; scattered yellow setae covering body.

Head (Fig. 80) with epistoma flattened; punctures greater than diameter of ommatidia covering dorsal surface, spaced less than 1X puncture diameter apart; setae 1.5-2X length of punctures. Labrum densely punctate, punctation smaller than that on frons. Antennae clavate. Dorsal and ventral portions of eye somwhate oblong-ovate, roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 80) widest at anterior one-third, anterior width equal to basal width; apical margin evenly, shallowly emarginate; apical corners rounded, lateral margin widened from apex to anterior one-third, then sides gradually narrowed to base; basal width narrower than humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin and middle of posterior margin; heavily punctate, puncture diameter slightly greater than that of punctures on head, spaced much less than 1X diameter of puncture apart on pronotal disc, almost confluent; distinct yellow recumbent setae originating from punctures. Hypomeron covered in deep punctures (Fig. 81). Prosternal process short, bluntly rounded, punctate, with scattered yellowish semi-erect setae.

Scutellum (Fig. 80) small, triangular, about 2X wider than long. Elytron (Figs. 80, 82) broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; strial punctures somewhat shallow, not confluent; intervals broadly convex, punctation minute. Seventh stria ending in lateral stria at humeral angle.

Mesoventrite punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Fig. 81) surfaces setose and heavily punctate. Profemora somewhat expanded and clavate. Protibia narrow, expanding gradually distally; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, 1.5X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, sub-equal in length to metatibia, without setose pads; first tarsomere 2X length of second.

Abdominal ventrites (Fig. 83) heavily punctate; covered in semi-erect yellowish setae; ventrites 1-2 flattened medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy confluent punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 84, 85) with basal piece and parameres arched, about one-half of elytral length; parameres parallel in basal half, then slightly widened and gently rounded to apex, apex bluntly rounded; parameres with weakly sinuate lateral margin, without upturned tips in lateral view.

Female. Length 5.1–6.5 mm, width 2.1–2.8 mm. Similar to male except body typically larger, more ovate, and robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Adults have been collected on sand dunes at night and on beaches.

Distribution. St. Lucia (HNHM, OSUC, WIBF), Îlet Hardy (Martinique) (Fig. 112).

Etymology. This species is named for Katie J. Hopp. She collected the holotype and a large number of paratypes as well as contributing greatly to the knowledge of West Indian Tenebrioniae in her revision of *Nesocyrtosoma* Marcuzzi.

Diastolinus insularis (Champion), New Combination

(Figs. 86-91, 112)

Ctesicles insularis Champion, 1896: 7. Type Locality St. Vincent. Leng and Mutchler 1914: 461 (St. Vincent). Gebien 1938: 401 [438] (Lesser Antilles). Blackwelder 1945: 524 (St. Vincent). Marcuzzi 1977: 25 (in part, St. Vincent records only); 1984: 79 (in part, St. Vincent records only). Peck 2010: 46 (in part, St. Vincent records only); 2011b: 29 (in part, St. Vincent records only); 2016: 159 (in part, St. Vincent records only).

Type Material. Champion did not designate a type. Out of the syntypes, the first of these listed is hereby designated the **Lectoype**, the remainders **Paralectotypes**, and they are so labeled: Windward side; St. Vincent, W.I.; H.H. Smith.; 254/ W. Indies.; 96-98/ Ctesicles; insularis Ch.; ♂/ Syntype/ WIBF 035656/ LECTOTYPE; Ctesicles; insularis; Champion 1896 (1 BMNH). Windward side; St. Vincent, W.I.; H.H. Smith./ W. Indies.;

96-98/ Ctesicles; insularis Ch./ near lot 14 May (Windward); this species is found under stones; and dry leaves along the sea-shore. (sandy)/ Syntype/ WIBF 035657/ PARALECTOTYPE; Ctesicles; insularis; Champion 1896 (1 female, BMNH). St. Vincent, W.I.; H.H. Smith.; 5/ W. Indies.; 96-98/ Ctesicles; insularis Ch.; ♂/ Syntype/ WIBF 035658/ PARALECTOTYPE; Ctesicles; insularis; Champion 1896 (1 BMNH). St. Vincent, W.I.; H.H. Smith.; 5/ W. Indies.; 96-98/ Ctesicles; insularis Ch.; ♀/ Syntype/ WIBF 0356569/ PARALECTOTYPE; Ctesicles; insularis; Champion 1896 (1 BMNH).

Diagnosis. This species can be distinguished by its small size (6.0 mm or less), the large punctures covering the entire body surface, the upper surface covered with yellow pubescence, the deeply impressed strial puncation with punctures commonly interrupting and overflowing onto the interstria, the shining, narrow elytral intervals, and the male aedeagus with parameres that have a nearly straight apical margin.

Redescription (male). Length 5.3–5.8 mm, width 2.3–2.5 mm. Body (Fig. 86) black, except antennae ptitchy red, last 3-4 antennomeres testaceous, sometimes tarsi reddish; upper surface dull, except elytral intervals somewhat shining, venter shining; ovate-oblong; moderately convex; scattered yellow setae covering body.

Head (Figs. 86, 87) with epistoma flattened; punctures greater than diameter of ommatidia covering dorsal surface, spaced less than 1X puncture diameter apart; setae 1.5-2X length of punctures. Labrum densely punctate, punctation smaller than that on frons. Antennae clavate. Dorsal and ventral portions of eye somwhate oblong-ovate, roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 87) widest at anterior one-third, anterior width equal to basal width; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex to anterior one-third, then sides gradually narrowed to base; basal width narrower than humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin and middle of posterior margin; heavily punctate, puncture diameter equal to that of punctures on head, spaced much less than 1X diameter of puncture apart on pronotal disc, almost confluent; distinct yellow recumbent setae originating from punctures. Hypomeron covered in deep punctures. Prosternal process short, bluntly rounded, punctate, with scattered yellowish semi-erect setae.

Scutellum (Fig. 87) small, rounded, about 3X wider than long. Elytron (Figs. 87, 88) broadening from base to widest point opposite metaventrite, then evenly arcuate to apices; striae deeply impressed; strial punctures deep , often confluent, interrupting interstrial line; intervals narrowly convex, punctation minute. Seventh stria ending in lateral stria at humeral angle.

Mesoventrite punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Fig. 88) surfaces setose and heavily punctate. Profemora somewhat expanded and clavate. Protibia narrow, expanding gradually distally; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, 1.5X width of tarsomere 4. Mesotarsus

with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, sub-equal in length to metatibia, without setose pads; first tarsomere more than 1.5X length of second.

Abdominal ventrites (Fig. 89) heavily punctate; covered in semi-erect yellowish setae; ventrites 1-2 flattened medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy confluent punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 90, 91) with basal piece and parameres arched, about one-half of elytral length; parameres parallel in basal half, then slightly widened and gently rounded to apex, apical margin almost straight; parameres with weakly sinuate lateral margin, without upturned tips in lateral view.

Female. Length 5.5–6.0 mm, width 2.4–2.6 mm. Similar to male except body typically larger, more ovate, and robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. This species has been found under stones and dry leaves near the sea shore.

Distribution. St. Vincent (Fig. 112).

Diastolinus maritimus (Champion), New Combination

(Figs. 92-97, 112)

Ctesicles maritimus Champion, 1896: 8. Type Locality Grenada (and Mustique). Leng and Mutchler 1914: 461 (Grenada, Mustique). Gebien 1938: 401 [438] (Lesser Antilles). Marcuzzi 1957: 129; 1984: 79 (Grenada, Mustique).

Ctesicles maritima; Blackwelder 1945: 524 (Grenada, Mustique). Woodruff *et al.* 1999:44 (Grenada, Mustique). Peck 2016: 159 (Grenada, Mustique).

Type Material. Champion did not designate a type. Out of the syntypes, the first of these listed is hereby designated the **Lectoype**, the remainders **Paralectotypes**, and they are so labeled: Telescope Est.; (Windward side); Grenada, W.I.; H.H. Smith.; 70/ W. Indies.; 96-98/ Ctesicles; maritimus Ch.; ♂/ Syntype/ WIBF 035661/ LECTOTYPE; Ctesicles; maritimus; Champion 1896 (1 BMNH). Lake Antoine Est.; (Windward side); Grenada, W.I.; H.H. Smith.; 32/ W. Indies.; 96-98/ Ctesicles; maritimus Ch. ♂/ WIBF 035660/ PARALECTOTYPE; Ctesicles; maritimus; Champion 1896 (1 BMNH). Telescope Est.; (Windward side); Grenada, W.I.; H.H. Smith.; 70/ W. Indies.; 96-98/ Ctesicles; maritimus Ch./ PARALECTOTYPE; Ctesicles; maritimus; Champion 1896 (2 BMNH, WIBF 035662 - 035663). Telescope Est.; (Windward side); Grenada, W.I.; H.H. Smith.; 66/ W. Indies.; 96-98/ Ctesicles; maritimus Ch./ specimens from this loc.; presented to Kaszab 29.1.58; Zool.Mus.Hung.Budapest/ PARALECTOTYPE; Ctesicles; maritimus; Champion 1896 (2 BMNH, WIBF 035664 - 035665). Mustique I.; Grenadines. W.I.; H.H. Smith./ W. Indies.; 96-98/ Ctesicles; maritimus Ch.; ♀/ Syntype/ WIBF 035666/ PARALECTOTYPE; Ctesicles; maritimus; Champion 1896 (1 BMNH). Mustique I.; Grenadines. W.I.; H.H. Smith./ W. Indies.; 96-98/ Ctesicles; maritimus Ch./ WIBF 035667/ PARALECTOTYPE; Ctesicles; maritimus; Champion 1896 (1 BMNH).

Diagnosis. This species can be distinguished by its small size (6.0 mm or less), the large punctures covering the entire body surface, the upper surface covered with yellow pubescence, the deeply impressed strial puncation with punctures commonly interrupting

and overflowing onto the interstria, the dull, broad elytral intervals, and the male aedeagus with parameres that have a slightly emarginate apical margin.

Redescription (male). Length 4.8–5.6 mm, width 2.0–2.3 mm. Body (Fig. 92) black, except antennae ptitchy red, last 3-4 antennomeres testaceous, sometimes tarsi reddish; upper surface dull, venter weakly shining; ovate-oblong; moderately convex; scattered yellow setae covering body.

Head (Fig. 93) with epistoma flattened; punctures greater than diameter of ommatidia covering dorsal surface, spaced less than 1X puncture diameter apart; setae 1.5-2X length of punctures. Labrum densely punctate, punctation smaller than that on frons. Antennae clavate. Dorsal and ventral portions of eye somwhate oblong-ovate, roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 93) widest just anterior of middle, anterior width slightly narrower than basal width; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex to just anterior of middle, then sides gradually narrowed to base; basal width narrower than humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin and middle of posterior margin; heavily punctate, puncture diameter equal to that of punctures on head, spaced much less than 1X diameter of puncture apart on pronotal disc, almost confluent; distinct yellow recumbent setae originating from punctures. Hypomeron covered in deep punctures. Prosternal process short, bluntly rounded, punctate, with scattered yellowish semi-erect setae.

Scutellum (Fig. 93) small, triangular, about 2X wider than long. Elytron (Figs. 93, 94) broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; strial punctures deep, often confluent, interrupting interstrial line; intervals broadly convex, punctation minute. Seventh stria ending in lateral stria at humeral angle.

Mesoventrite punctate. Metaventrite short, punctate anterior border behind mesocoxae.

Leg (Fig. 94) surfaces setose and heavily punctate. Profemora somewhat expanded and clavate. Protibia narrow, expanding gradually distally; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical two-thirds; apex obliquely truncate, ringed by stout spines. Protarsus with tarsomeres 1-3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, 1.5X width of tarsomere 4. Mesotarsus with tarsomeres 1-3 weakly expanded, ventrally with densely setose pads. Metatarsus narrow, about three-fourths length of metatibia, without setose pads; first tarsomere more than 2X length of second.

Abdominal ventrites (Fig. 95) heavily punctate; covered in semi-erect yellowish setae; ventrites 1-2 flattened medially; anterior border of ventrite 1, just behind hind coxae, with row of heavy confluent punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Fig. 96, 97) with basal piece and parameres arched, about one-half of elytral length; parameres parallel in basal half, then slightly widened and gently rounded to apex, apical margin slightly emarginate; parameres with weakly sinuate lateral margin, without upturned tips in lateral view.

Female. Length 5.2–6.0 mm, width 2.1–2.6 mm. Similar to male except body typically larger, more ovate, and robust than male. Protarsi and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Unknown.

Distribution. Mustique, Grenada (Fig. 112).

Species *Incertae Sedis*

Diastolinus perforatus Leng and Mutchler 1914 (not Sahlberg, 1823)

Diastolinus perforatus (not Sahlberg, 1823); Leng and Mutchler 1914: 460 (in part, Martinique records only). Gebien 1938: 294 [413] (in part, Martinique records only). Blackwelder 1945: 524 (in part, Martinique records only). Marcuzzi 1957:128 (in part, Martinique records only); 1984: 78 (in part Martinique records only). Peck 2011a: 33 (in part, Martinique records only); 2011b: 29 (in part, Martinique records only). Peck *et al.* 2014: 84 (in part, Martinique records only). Peck 2016: 160 (in part, Martinique records only).

Diastolinus hummelincki Marcuzzi, 1962: 29 (in part, Martinique records only).

Diastolinus mulsanti Marcuzzi and D'Aguilar 1971:79 (in part, Martinique records only). Marcuzzi 1977: 19 (in part, Martinique records only); 1984: 77 (in part, Martinique records only). Peck 2011b: 29 (in part, Martinique records only); 2016: 159 (in part, Martinique? records only).

The above apparently all refer to a single Martinique specimen, which we have not found. The identity of this record is unknown at this time, thus placed *incertae sedis*. In spite of three species names being involved, there is only a single record here.

We can trace the record to Leng and Mutchler (1914), but no voucher has been found. It may originate earlier, but we have been unable to fine it. In 1957 Marcuzzi did not cite a specimen for his Martinique record of *D. perforatus* in his table. In 1962 he dropped the *D. perforatus* record for Martinique, rather moved it to *D. hummelincki* with a "?" In 1977 *D. hummelincki* was replaced with *D. mulsanti*, and the Martinique record retained. Lastly, in 1984 the Martinique record for *D. perforatus* was reinstated, apparently forgetting he moved it to *D. hummelincki/mulsanti*, which was also retained. Peck (2011, 2016) listed it twice, under two names, without understanding the records.

Diastolinus puncticollis **Marcuzzi 1977 (not Mulsant and Rey, 1859)**

Diastolinus puncticollis (not Mulsant and Rey, 1859). Marcuzzi 1977: 22 (in part, Puerto Rico records only). Peck 2011a: 33 (in part, Puerto Rico records only). Peck *et al.* 2014: 84 (in part, Puerto Rico records only). Peck 2016: 160 (in part, Puerto Rico records only).

This record is based on two specimens labeled "E of Guanica, station 704, 15.IX.1963" collected by Wagenaar Hummelinck, supposedly deposited in Naturalis, Leiden. Repeated requests to Naturalis have gone unanswered, so we have not seen these specimens, and the record is therefore placed *incertae sedis*.

Opatrinus semi-cribratus Chevrolat (*nomen nudem*)

Opatrinus semi-cribratus Chevrolat (*nomen nudem*) *in* Mulsant and Rey 1859: 80; 1860: 144.

The species this record refers to is impossible to associate with any of the valid names available from Cuba. It should be considered permanently removed from the literature.

Checklist of *Diastolinus* Mulsant and Rey

The species of *Diastolinus* are alphabetically ordered within species-group.

"clathratus" Species-Group

D. chalumeaui Hart and Ivie, 2016, **New Species**.....Guadeloupe, Dominica
D. clathratus (Fabricius, 1792).....St. Croix
Blaps clathrata Fabricius, 1792
D. clavatus Mulsant and Rey, 1859.....Puerto Rico, Virgin Islands except St. Croix
D. hummelincki Marcuzzi, 1962, **New Synonymy**
D. mulsanti Marcuzzi and D'Aguilar, 1971, **New Synonymy**
D. leewardensis Hart and Ivie, 2016, **New Species**.....Lesser Antilles (Leeward Islands)
D. perforatus (Schönherr, 1806) .....Anguilla Bank
Opatrinus perforatum Schönherr, 1806
D. shieli Hart and Ivie, 2016, **New Species**.....Redonda

"sellio" Species-Group

D. azuaensis Hart and Ivie, 2016, **New Species**.....Hispaniola
D. coarctatus (Mulsant and Rey, 1859).....Hispaniola
Sellio coarctatus Mulsant and Rey, 1859
D. estebani Garrido, 2004a, **New Synonymy**
D. desecheo Hart and Ivie, 2016, **New Species**.....Desecheo Is., Puerto Rico
D. doyeni Hart and Ivie, 2016, **New Species**.....Puerto Rico
D. espoloni Garrido, 2007.....Hispaniola
D. gladiator (Garrido, 2004b).....Hispaniola
Sellio gladiator Garrido, 2004b

D. tibidens (Quensel, 1806).....Puerto Rico, Virgin Islands
Sellio tibidens Quensel, 1806
D. vaderi Hart and Ivie, 2016, **New Species**.....Hispaniola
D. victori Garrido, 2002.....Puerto Rico
D. elongatus Marcuzzi, 1977

"ctesicles" Species-Group

D. hoppae Hart and Ivie, 2016, **New Species**.....St. Lucia, Martinique
D. insularis (Champion, 1896).....St. Vincent
Ctesicles insularis Champion, 1896
D. maritimus (Champion, 1896).....Grenada, Grenadines
Ctesicles maritimus Champion, 1896

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APPENDICES

APPENDIX A

TABLES AND FIGURES

Table 1. List of species included in the "clathratus" species-group. *Indicates WIBF specimen to be deposited in NMNH.

Species Name	Taxonomic Status	Type Repository
Diastolinus chalumeaui Hart and Ivie	NEW SPECIES	WIBF*
Diastolinus clathratus (Fabricius)		ZMUC
Diastolinus clavatus Mulsant and Rey		MNHN?
Diastolinus hummelincki Marcuzzi	JUNIOR SYNONYM	HNHM
Diastolinus mulsanti Marcuzzi and D'Aguilar	JUNIOR SYNONYM	HNHM
Diastolinus leewardensis Hart and Ivie	NEW SPECIES	WIBF*
Diastolinus perforatus (Schönherr)		NHRS
Diastolinus shieli Hart and Ivie	NEW SPECIES	NMNH

Table 2. List of species included in the "sellio" species-group. *Indicates WIBF specimen to be deposited in NMNH.

Species Name	Taxonomic Status	Type Repository
Diastolinus azuaensis Hart and Ivie	NEW SPECIES	WIBF*
Diastolinus coarctatus (Mulsant and Rey)		MNHN?
Diastolinus estebani Garrido	JUNIOR SYNONYM	MNHC
Diastolinus desecheo Hart and Ivie	NEW SPECIES	OSUC
Diastolinus doyeni Hart and Ivie	NEW SPECIES	AMNH
Diastolinus espoloni Garrido		HPPR
Diastolinus gladiator (Garrido)		MNHC
Diastolinus tibidens (Quensel)		NHRS
Diastolinus vaderi Hart and Ivie	NEW SPECIES	FSCA
Diastolinus victori Garrido	NEW SPECIES	MSNG

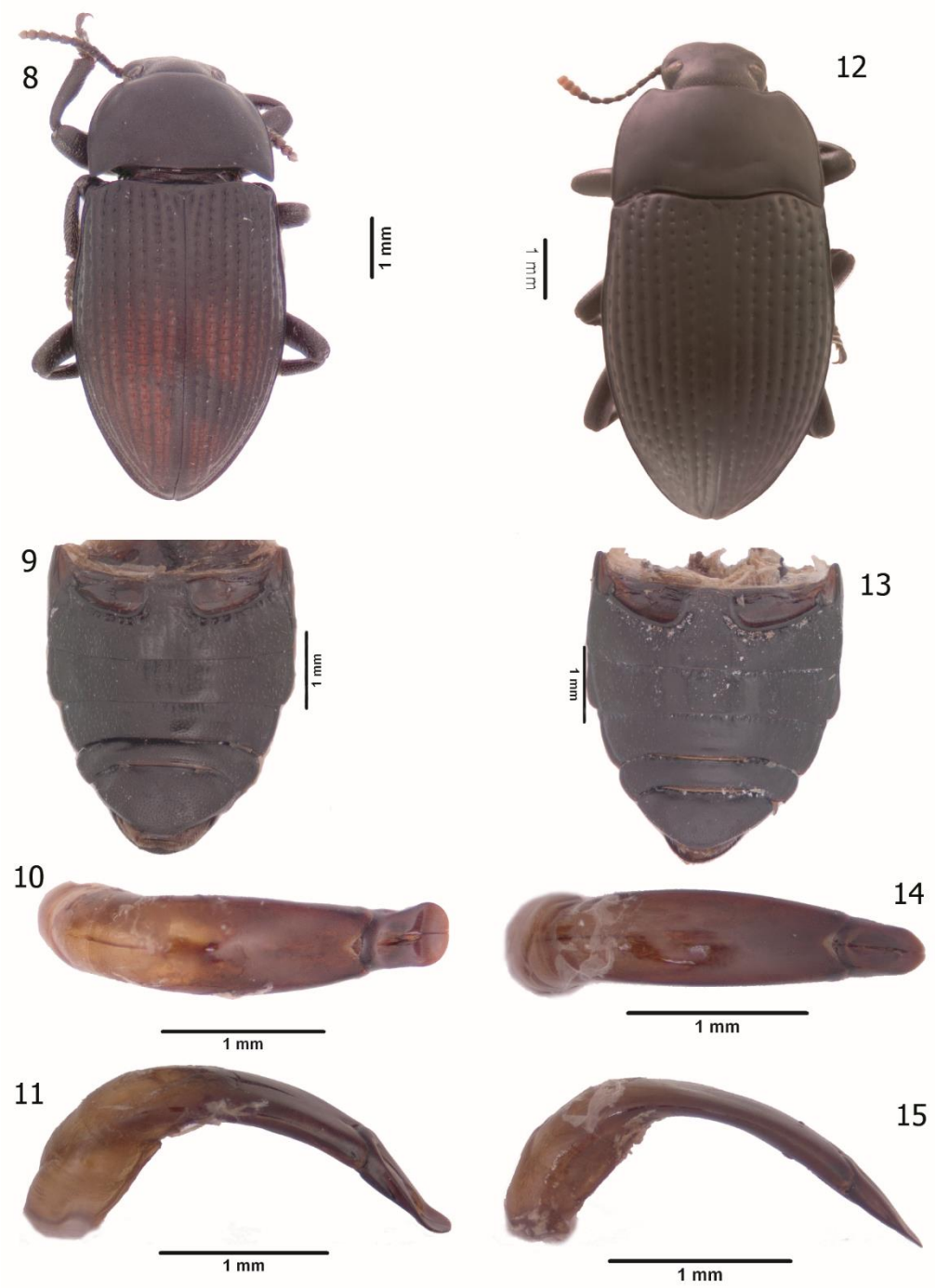
Table 3. List of species included in the "ctesicles" species-group. *Indicates WIBF specimen to be deposited in NMNH.

Species Name	Taxonomic Status	Type Repository
Diastolinus hoppae Hart and Ivie	NEW SPECIES	WIBF*
Diastolinus insularis (Champion)		BMNH
Diastolinus maritimus (Champion)		BMNH

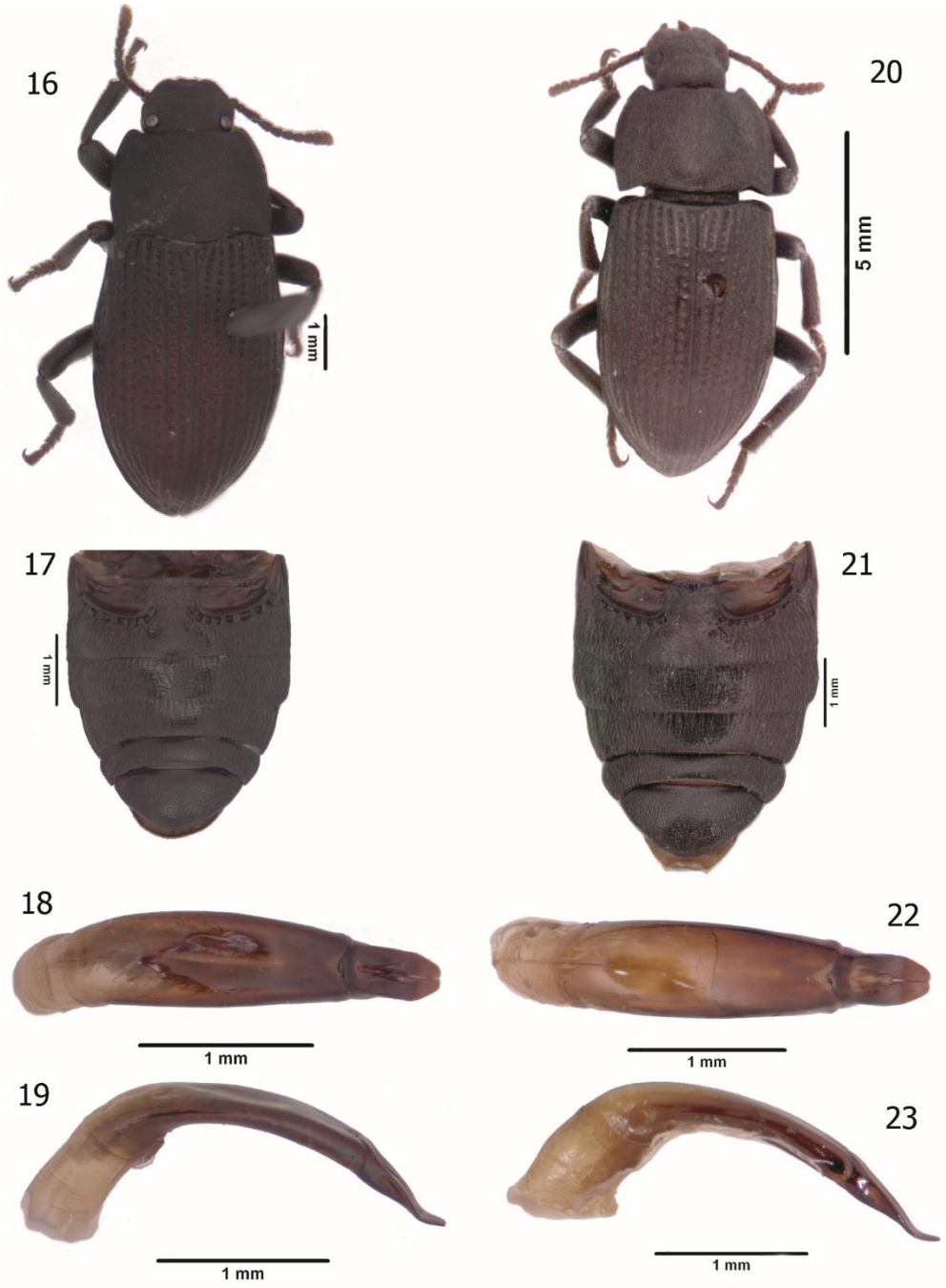
Figures 1-7. *Diastoinus clathratus*. 1. *D. clathratus* Holotype, dorsal habitus (ZMUC). 2. *D. clathratus* Holotype, lateral view (ZMUC). 3. *D. clathratus* aedeagus, dorsal view. 4. *D. clathratus* humeral angle, dorsal view. 5. *D. clathratus* abdominal ventrites. 6. *D. clathratus* Holotype, Label (ZMUC). 7. *D. clathratus* aedeagus, lateral view.



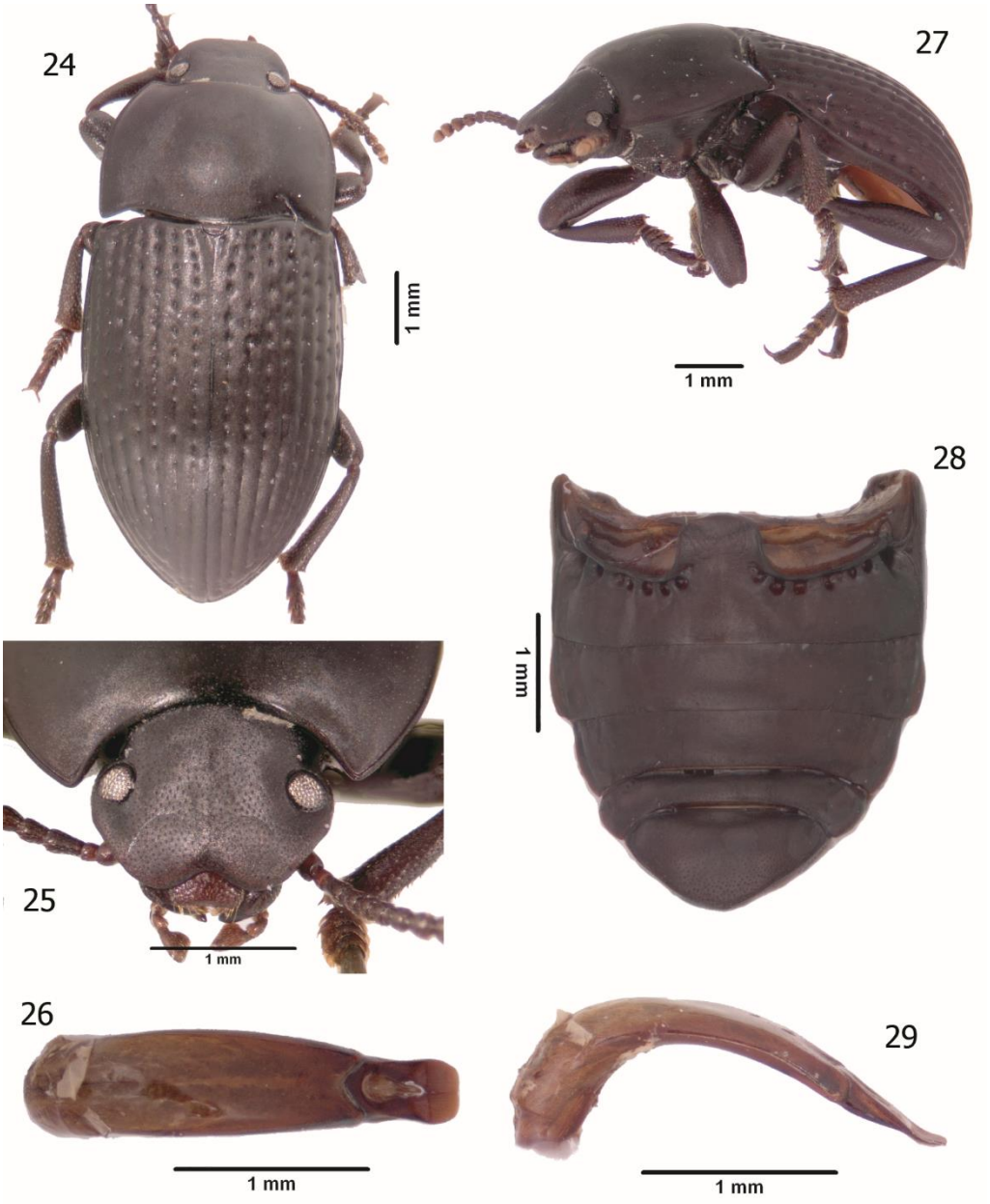
Figures 8-11. *Diastoinus chalumeaui*. 8. *D. chalumeaui* Holotype, dorsal habitus. 9. *D. chalumeaui* Holotype, abdominal ventrites. 10. *D. chalumeaui* Holotype, aedeagus, dorsal view. 11. *D. chalumeaui* Holotype, aedeagus, lateral view.
Figures 12-15. *Diastoinus clavatus*. 12. *D. clavatus* dorsal habitus. 13. *D. clavatus* abdominal ventrites. 14. *D. clavatus* aedeagus, dorsal view. 15. *D. clavatus* aedeagus, lateral view.



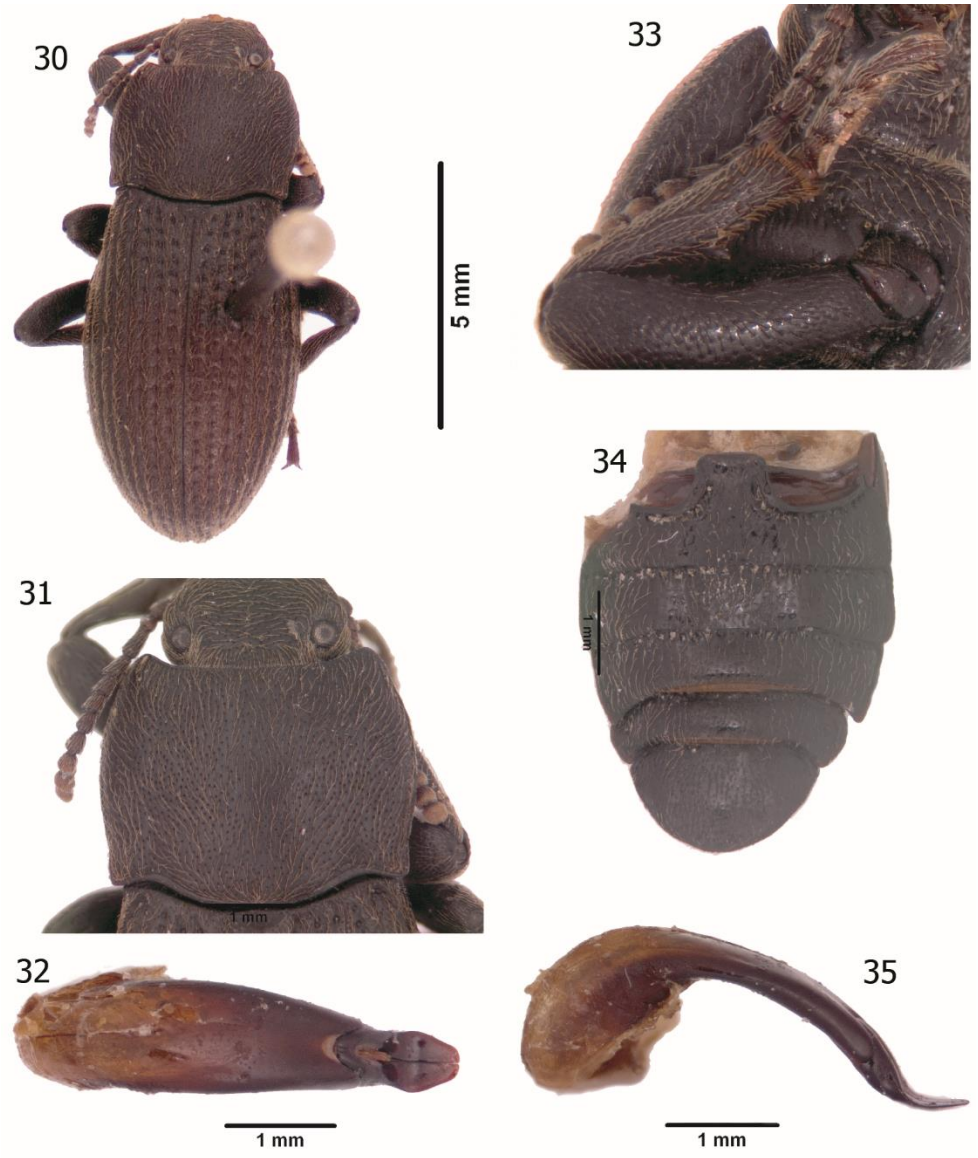
Figures 16-19. *Diastoinus leewardensis*. 16. *D. leewardensis* Holotype, dorsal habitus. 17. *D. leewardensis* Holotype, abdominal ventrites. 18. *D. leewardensis* Holotype, aedeagus, dorsal view. 19. *D. leewardensis* Holotype, aedeagus, lateral view.
Figures 20-23. *Diastoinus shieli*. 20. *D. shieli* Paratype, dorsal habitus view. 21. *D. shieli* Paratype, abdominal ventrites. 22. *D. shieli* Paratype, aedeagus, dorsal view. 23. *D. shieli* Paratype, aedeagus, lateral view.



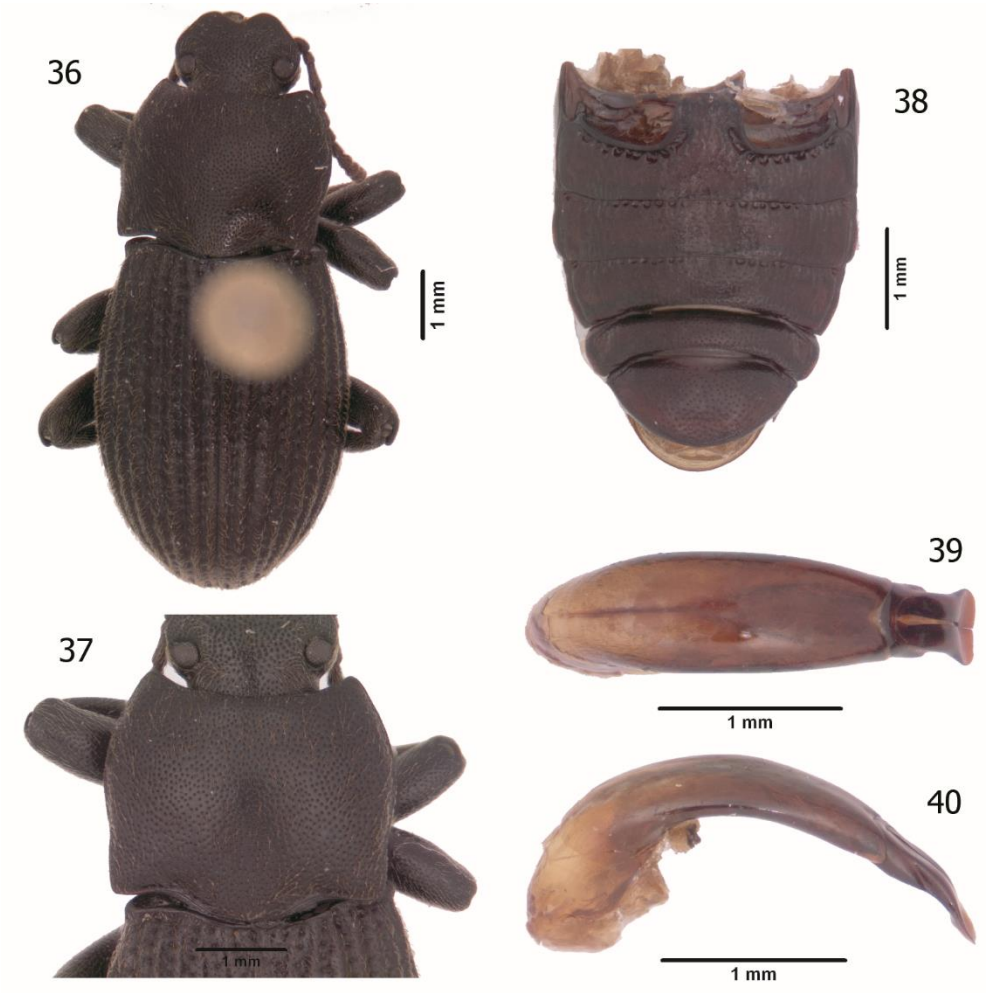
Figures 24-27. *Diastoinus perforatus*. 24. *D. perforatus* Anguilla, dorsal habitus view. 25. *D. perforatus* Anguilla, head. 26. *D. perforatus* Anguilla, aedeagus, dorsal view. 27. *D. perforatus* St. Barthélemy, lateral view. 28. *D. perforatus* Anguilla, abdominal ventrites. 29. *D. perforatus* Anguilla, aedeagus, lateral view.



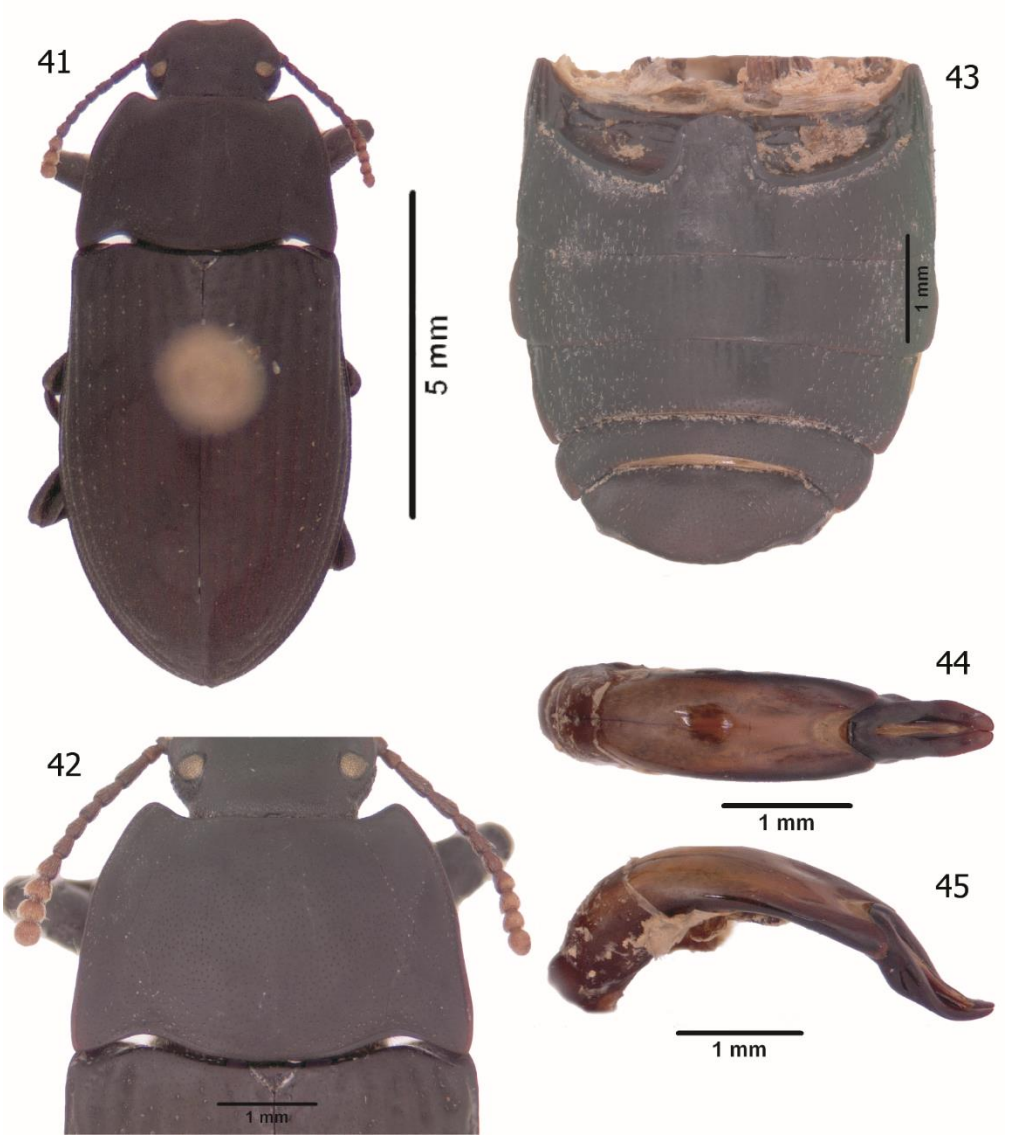
Figures 30-35. *Diastoinus azuaensis*. 30. *D. azuaensis* Holotype, dorsal habitus. 31. *D. azuaensis* Holotype, pronotum, dorsal view. 32. *D. azuaensis* Holotype, aedeagus, dorsal view. 33. *D. azuaensis* Holotype, proleg. 34. *D. azuaensis* Holotype, abdominal ventrites. 35. *D. azuaensis* Holotype, aedeagus, lateral view.



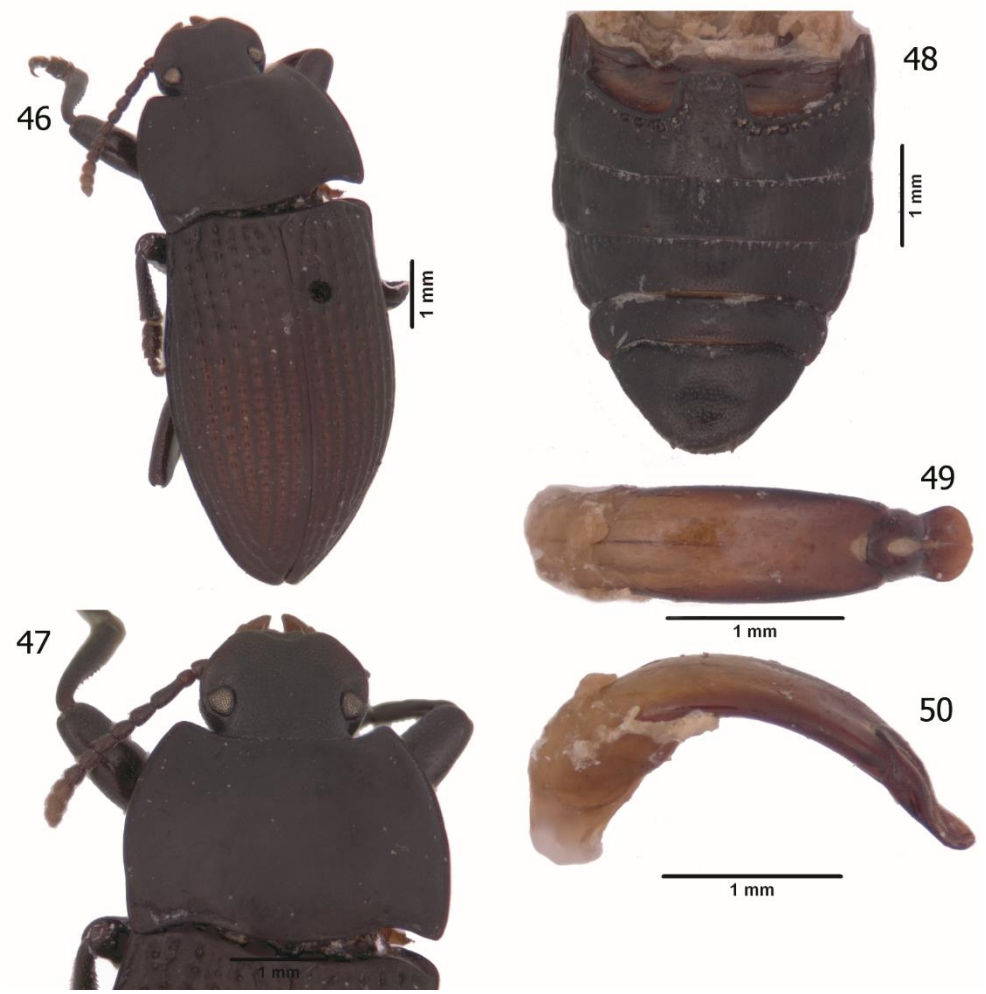
Figures 36-40. *Diastoinus coarctatus*. 36. *D. coarctatus* dorsal habitus. 37. *D. coarctatus* pronotum, dorsal view. 38. *D. coarctatus* abdominal ventrites. 39. *D. coarctatus* aedeagus, dorsal view. 40. *D. coarctatus* aedeagus, lateral view.



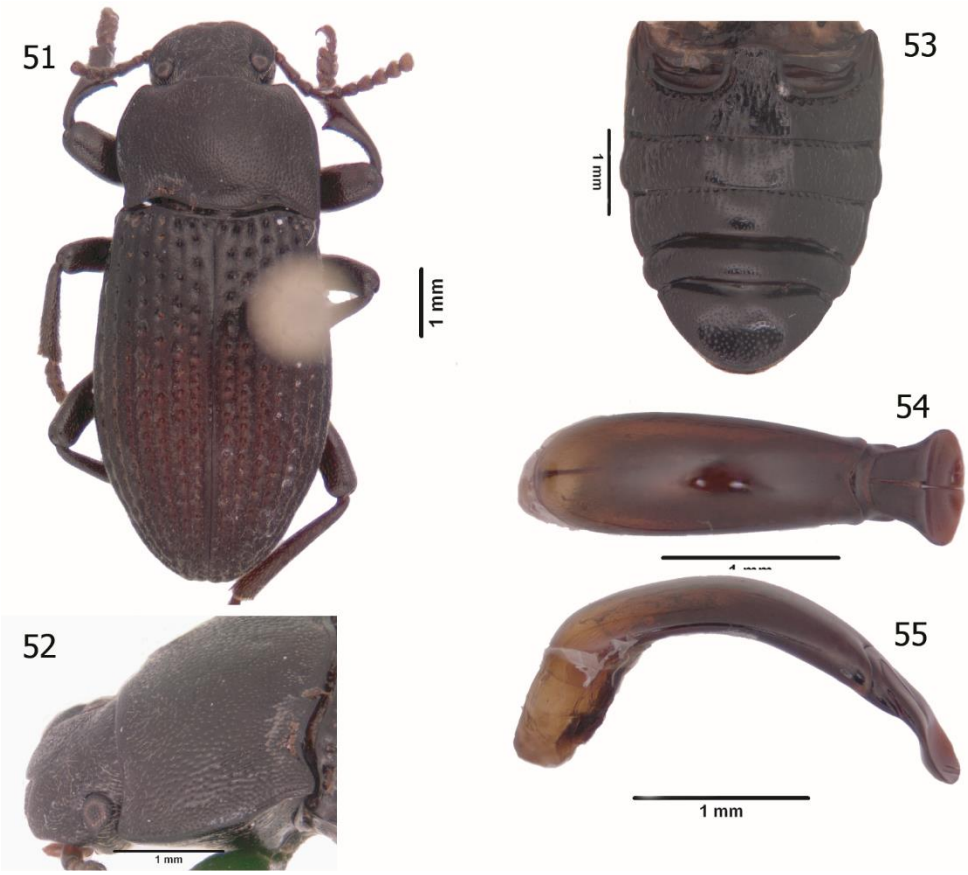
Figures 41-45. *Diastoinus desecheo*. 41. *D. desecheo* Paratype, dorsal habitus. 42. *D. desecheo* Paratype, pronotum, dorsal view. 43. *D. desecheo* Paratype, abdominal ventrites. 44. *D. desecheo* Paratype, aedeagus, dorsal view. 45. *D. desecheo* Paratype, aedeagus, lateral view.



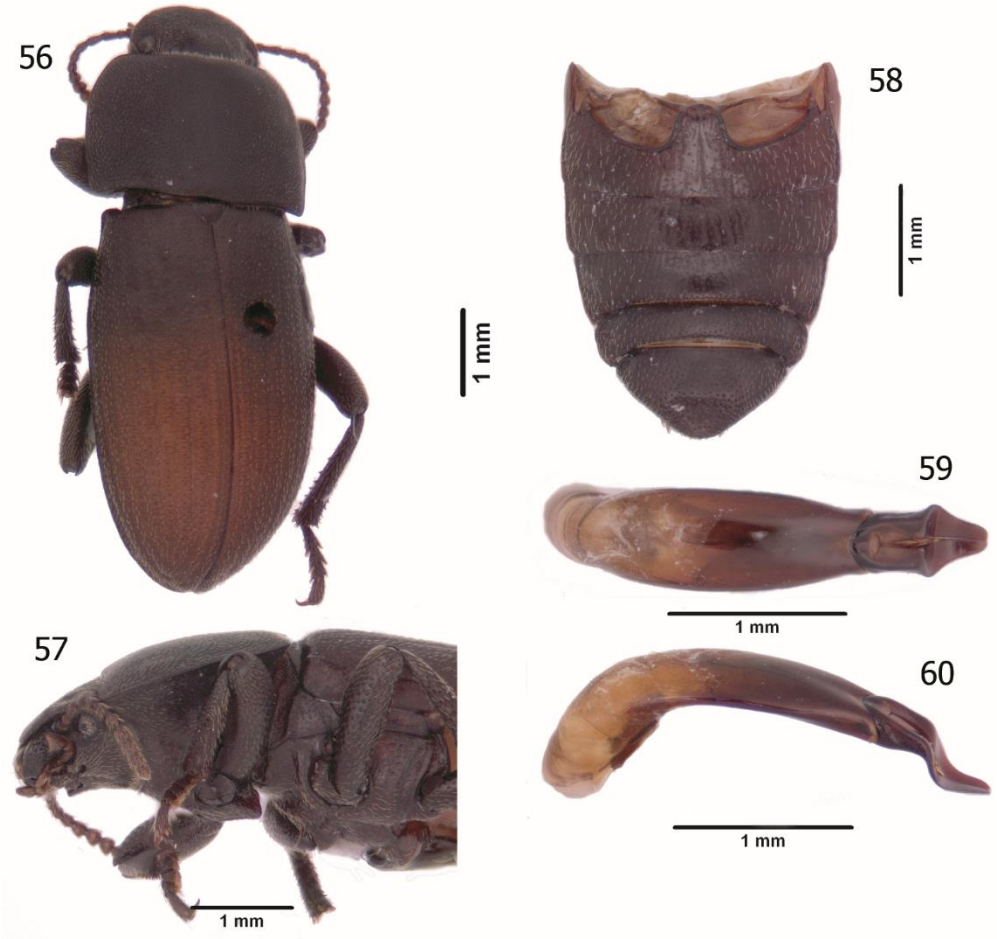
Figures 46-50. *Diastoinus doyeni*. 46. *D. doyeni* Holotype, dorsal habitus. 47. *D. doyeni* Holotype, pronotum, dorsal view. 48. *D. doyeni* Holotype, abdominal ventrites. 49. *D. doyeni* Holotype, aedeagus, dorsal view. 50. *D. doyeni* Holotype, aedeagus, lateral view.



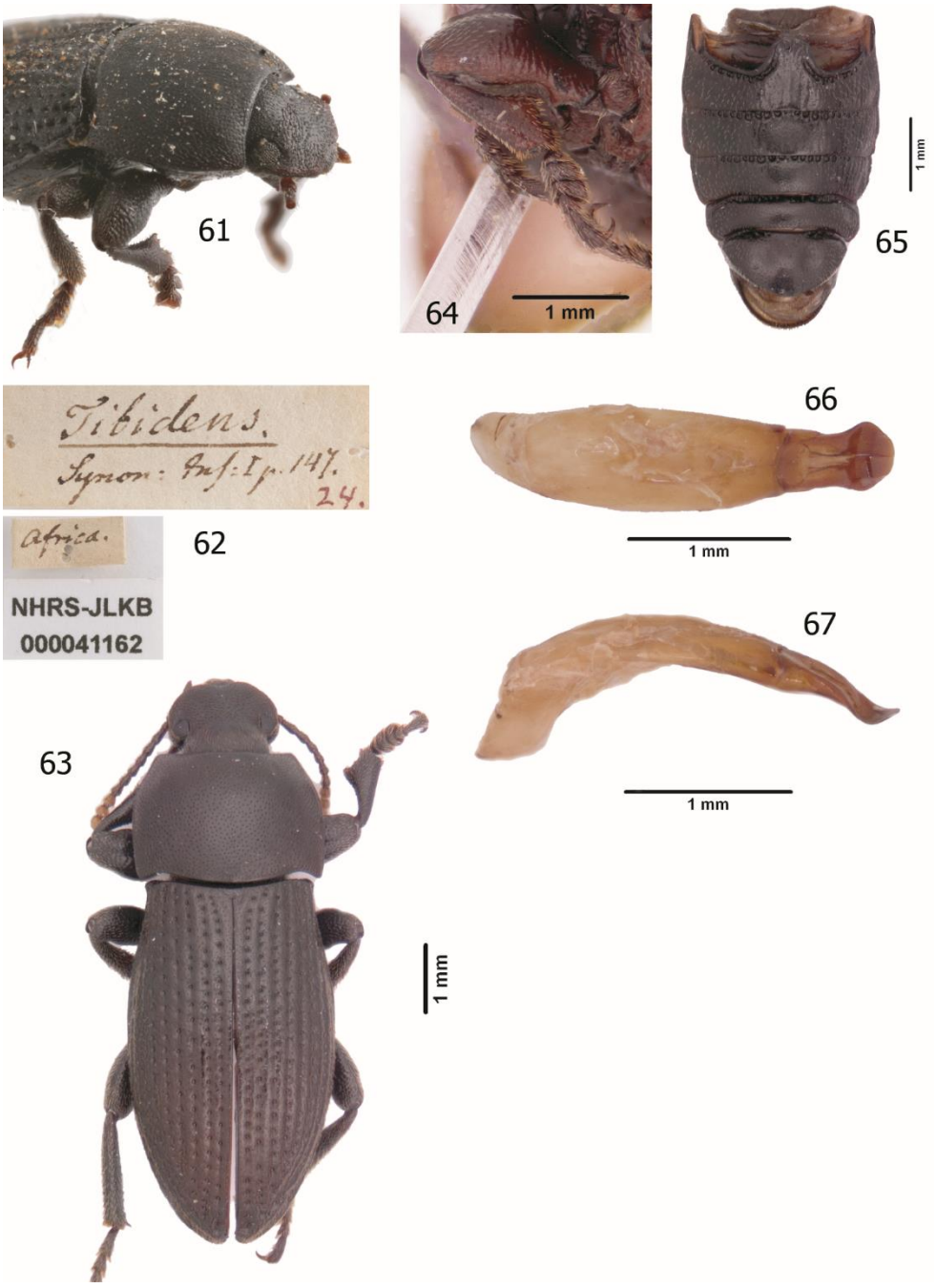
Figures 51-55. *Diastoinus espoloni*. 51. *D. espoloni* dorsal habitus. 52. *D. espoloni* pronotum, lateral view. 53. *D. espoloni* abdominal ventrites. 54. *D. espoloni* aedeagus, dorsal view. 55. *D. espoloni* aedeagus, lateral view.



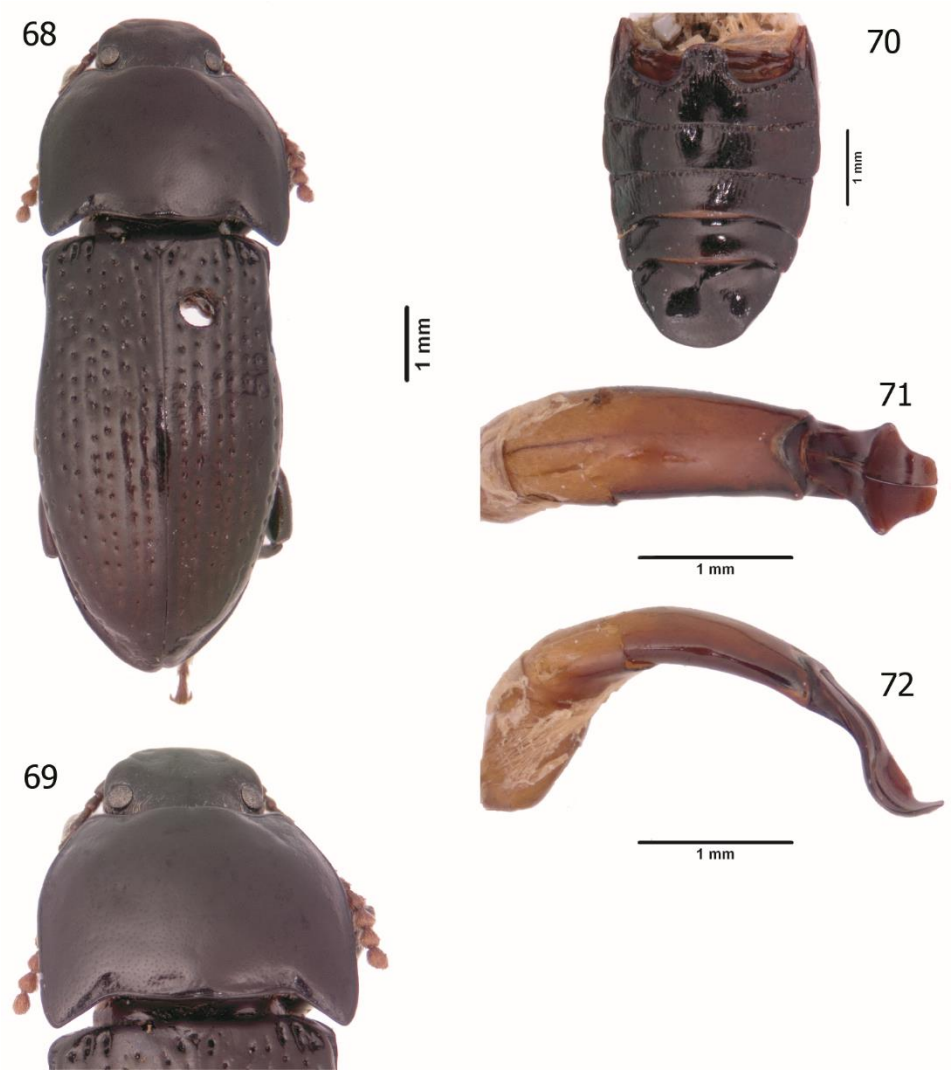
Figures 56-60. *Diastoinus gladiator*. 56. *D. gladiator* dorsal habitus. 57. *D. gladiator* lateral view. 58. *D. gladiator* abdominal ventrites. 59. *D. gladiator* aedeagus, dorsal view. 60. *D. gladiator* aedeagus, lateral view.



Figures 61-67. *Diastoinus tibidens*. 61. *D. tibidens* Holotype, head and pronotum [Photographed by Johannes Bergsten, NHRS. Made available by NHRS under Creative Commons Attribution 4.0 International Public License (CC-BY 4.0)]. 62. *D. tibidens* Holotype, labels. 63. *D. tibidens* dorsal habitus. 64. *D. tibidens* proleg. 65. *D. tibidens* abdominal ventrites. 66. *D. tibidens* aedeagus, dorsal view. 67. *D. tibidens* aedeagus, lateral view.



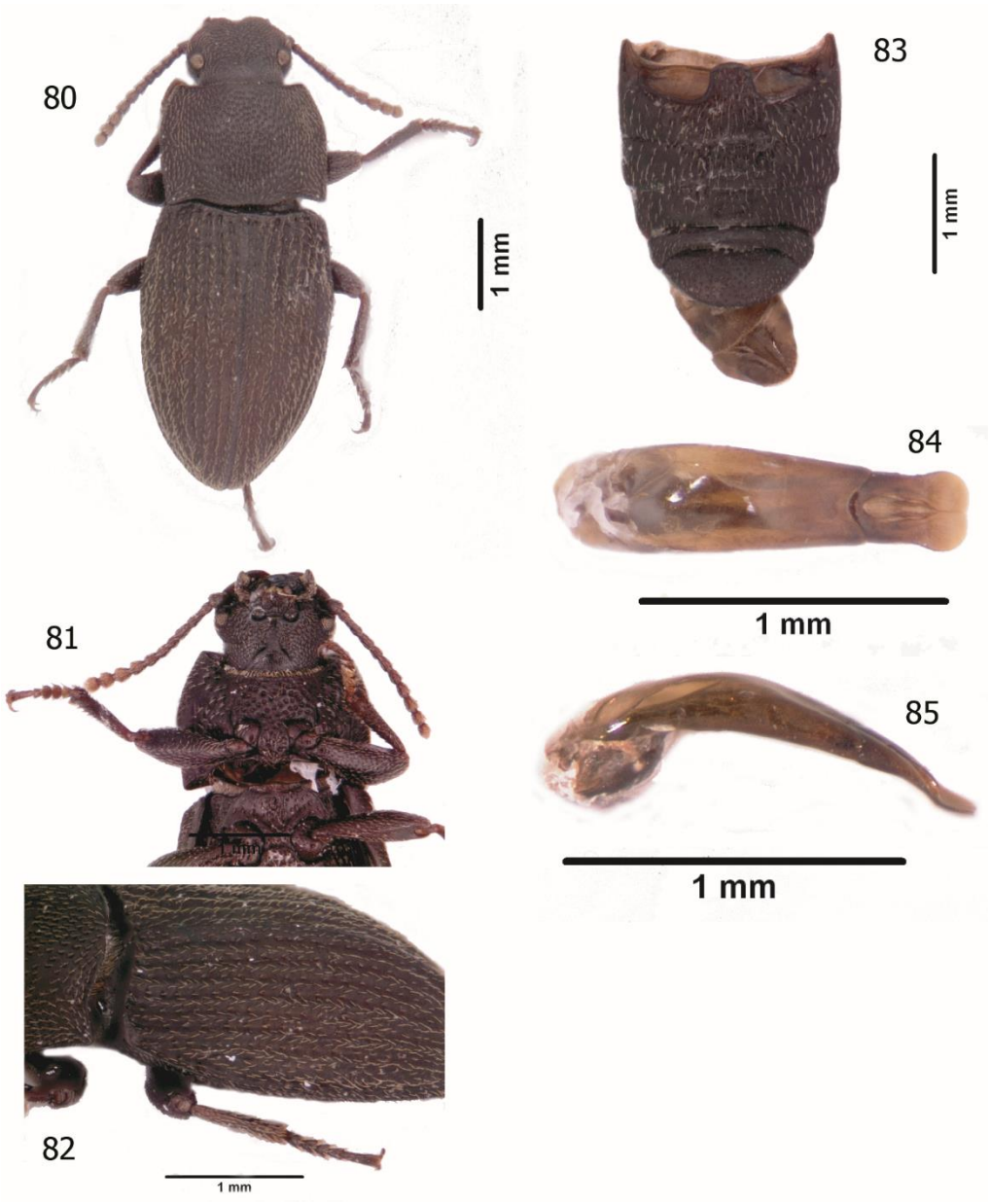
Figures 68-72. *Diastoinus vaderi*. 68. *D. vaderi* Holotype, dorsal habitus. 69. *D. vaderi* Holotype, pronotum. 70. *D. vaderi* Holotype, abdominal ventrites. 71. *D. vaderi* Holotype, aedeagus, dorsal view. 72. *D. vaderi* Holotype, aedeagus, lateral view.



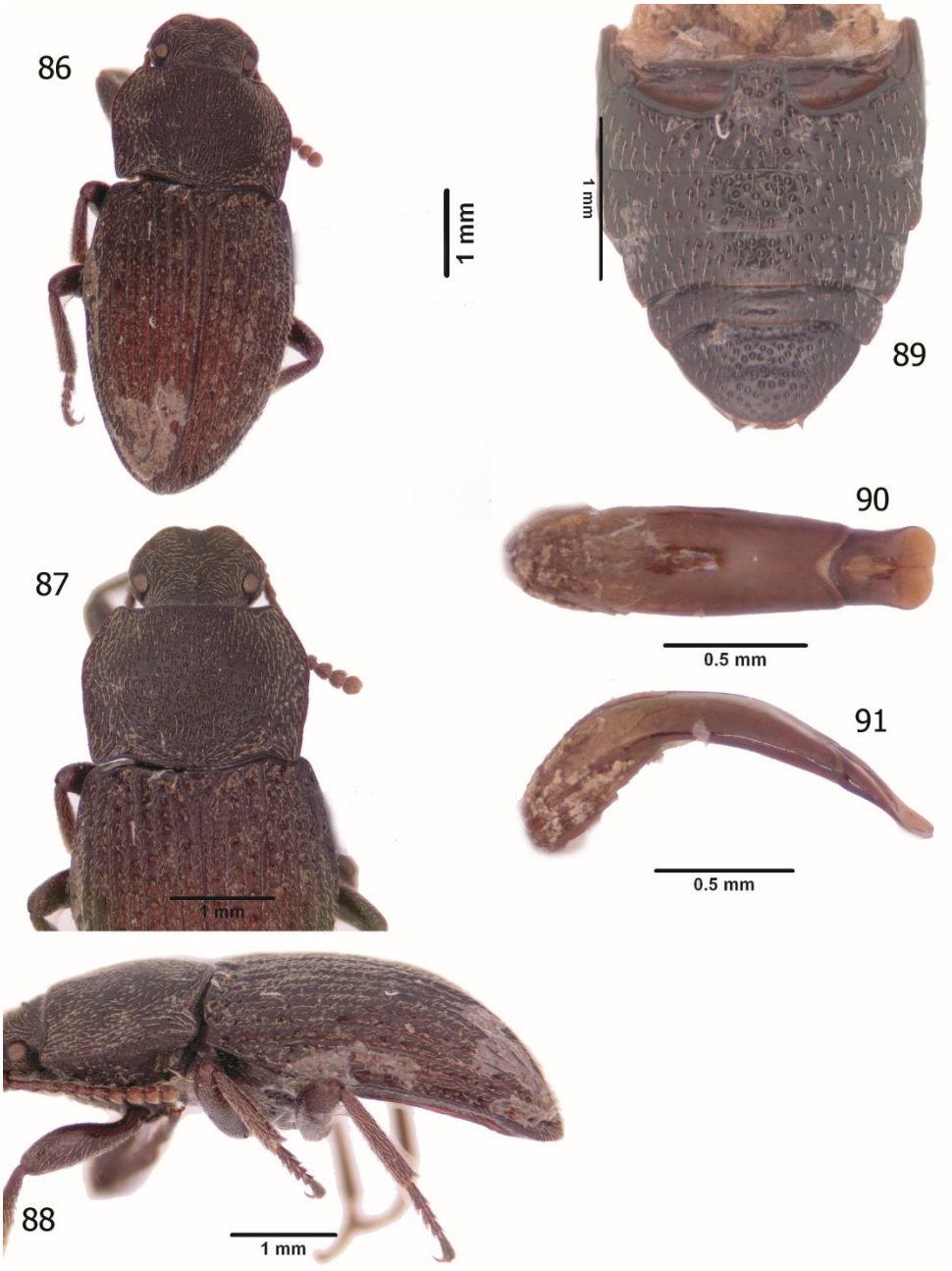
Figures 73-79. *Diastoinus victori*. 73. *D. victori* Paratype, dorsal habitus. 74. *D. victori* Paratype, labels. 75. *D. victori* pronotum. 76. *D. victori* gular horn. 77. *D. victori* abdominal ventrites. 78. *D. victori* aedeagus, dorsal view. 79. *D. victori* aedeagus, lateral view.



Figures 80-85. *Diastoinus hoppae*. 80. *D. hoppae* Paratype, dorsal habitus. 81. *D. hoppae* Paratype, pronotum, ventral view. 82. *D. hoppae* Paratype, humeral angle, lateral view. 83. *D. hoppae* Paratype, abdominal ventrites. 84. *D. hoppae* Paratype, aedeagus, dorsal view. 85. *D. hoppae* Paratype, aedeagus, lateral view.



Figures 86-91. *Diastoinus insularis*. 86. *D. insularis* Lectotype, dorsal habitus. 87. *D. insularis* Lectotype, pronotum. 88. *D. insularis* Lectotype, lateral view. 89. *D. insularis* Lectotype, abdominal ventrites. 90. *D. insularis* Lectotype, aedeagus, dorsal view. 91. *D. insularis* Lectotype, aedeagus, lateral view.



Figures 92-97. *Diastoinus maritimus*. 92. *D. maritimus* Lectotype, dorsal habitus. 93. *D. maritimus* Lectotype, pronotum. 94. *D. maritimus* Paralectotype, lateral view. 95. *D. maritimus* Paralectotype, abdominal ventrites. 96. *D. maritimus* Paralectotype, aedeagus, dorsal view. 97. *D. maritimus* Paralectotype, aedeagus, lateral view.

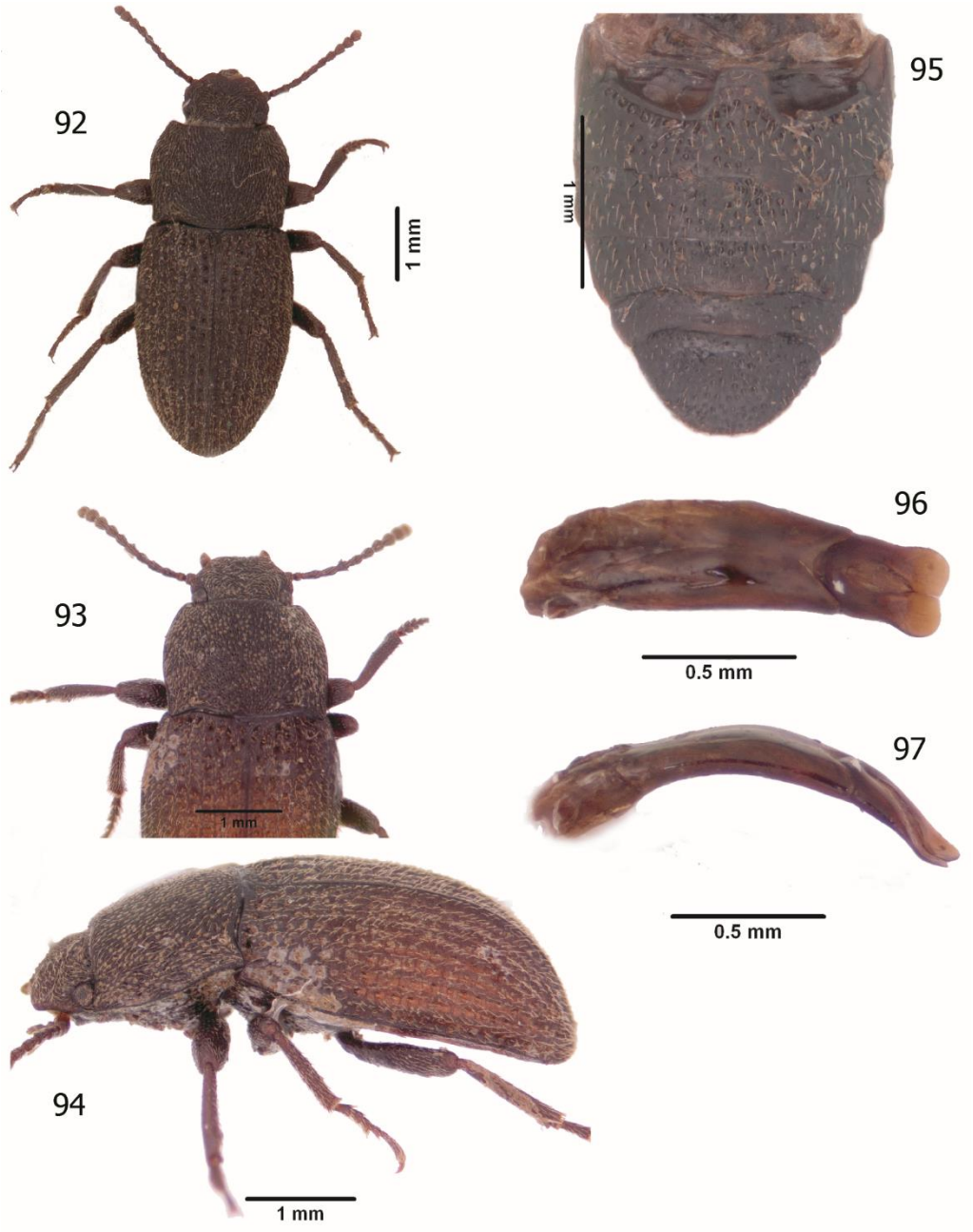


Figure 98. *Diastolinus clavatus*, head, dorsal view.

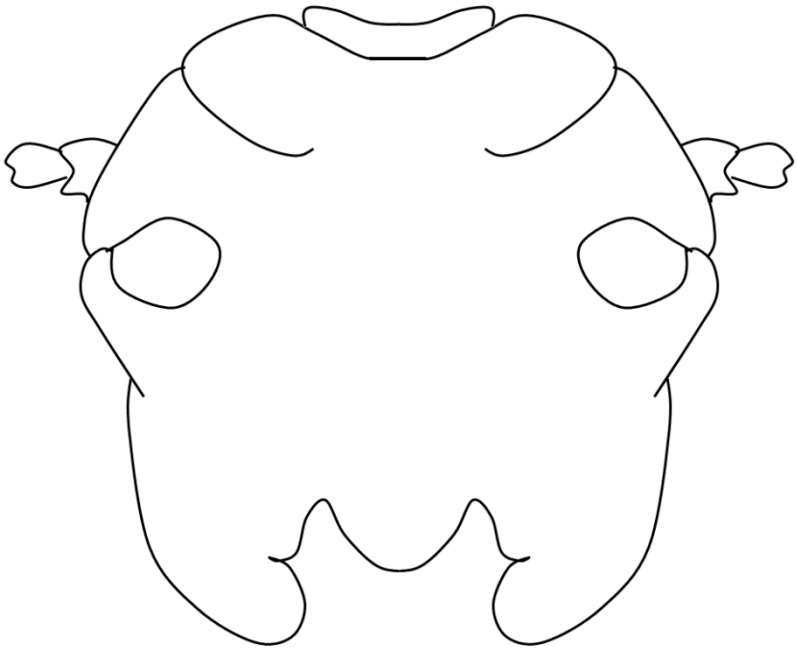


Figure 99. *Diastolinus clavatus*, antenna, dorsal view.

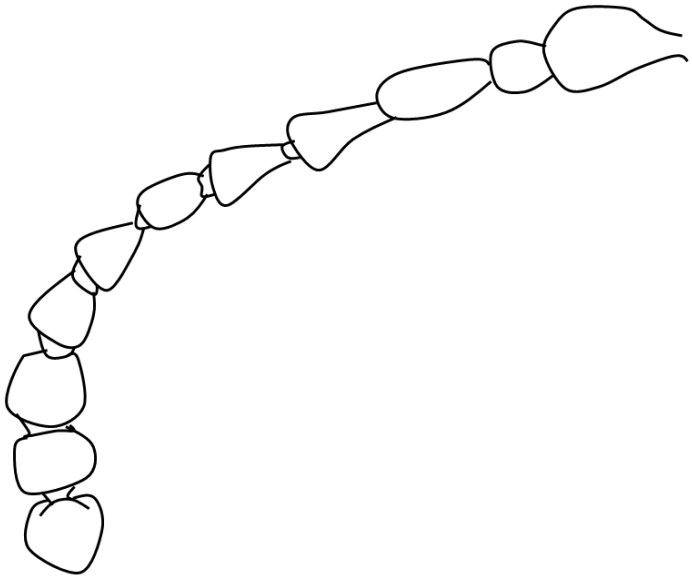


Figure 100. *Diastolinus desecheo*, pronotal bead.

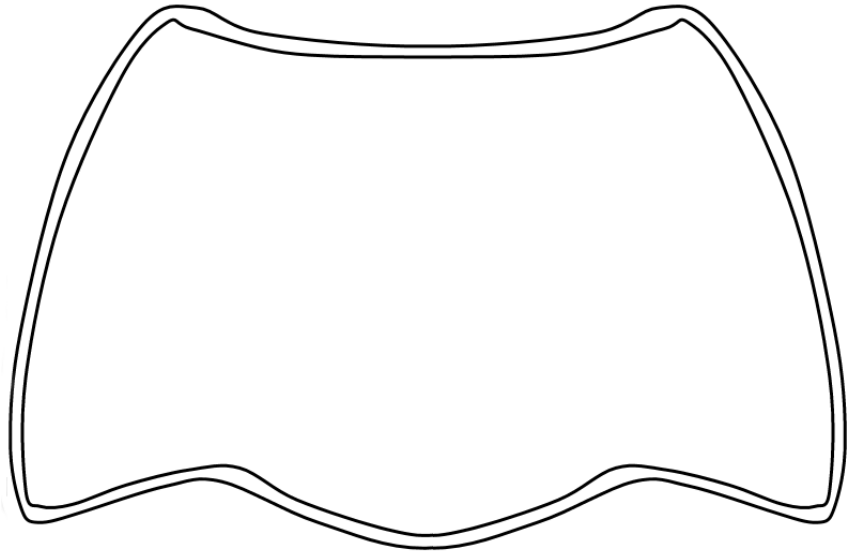


Figure 101. *Diastolinus clavatus*, pronotal bead.

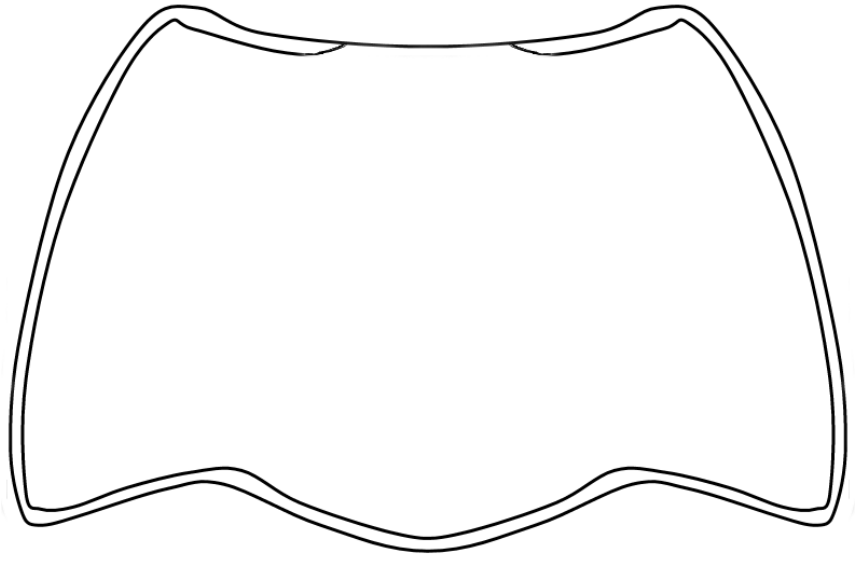


Figure 102. *Diastolinus clavatus*, pronotum, ventral view.

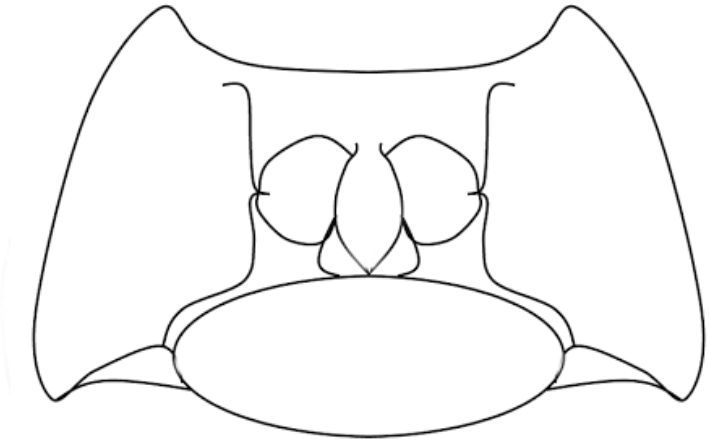


Figure 103. *Diastolinus clavatus*, legs: a) male proleg, b) female proleg, c) male mesoleg, d) male metaleg.

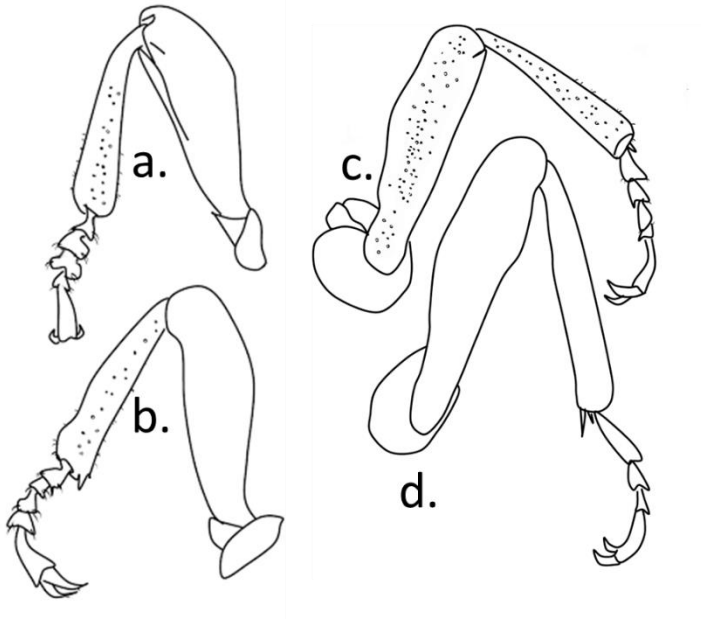


Figure 104. *Diastolinus clavatus*, ventral meso- and metathorax.

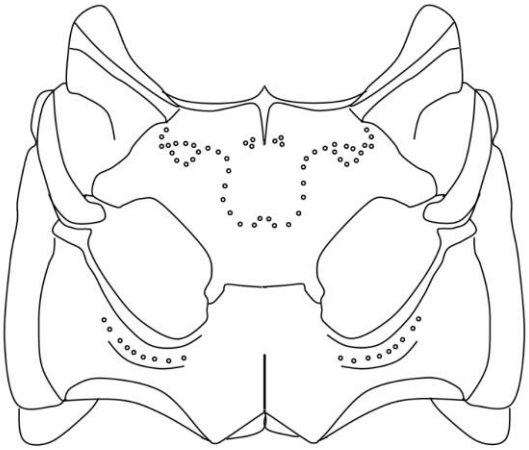


Figure 105. *Diastolinus clavatus*, abdominal ventrites.

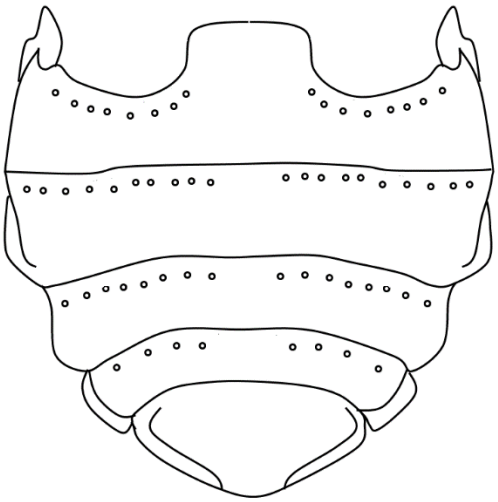


Figure 106. *Diastolinus clavatus*, aedeagus: a) ventral view, b) lateral view.

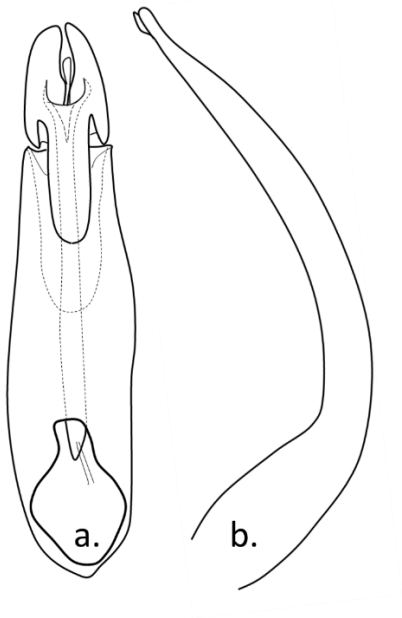


Figure 107. *Diastolinus clavatus*, ovipositor: a) dorsal view, b) ventral view.

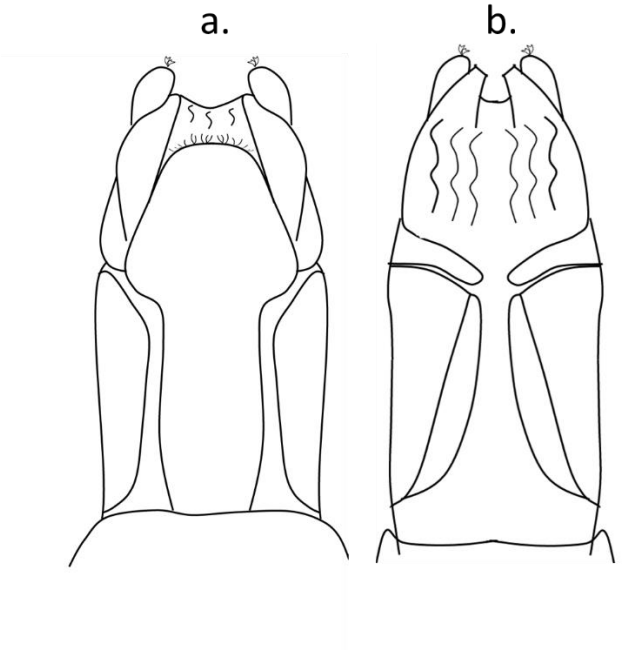


Figure 108. Map of species-group distributions. Hispanila, Puerto Rico, Virgin Islands and the Lesser Antilles.

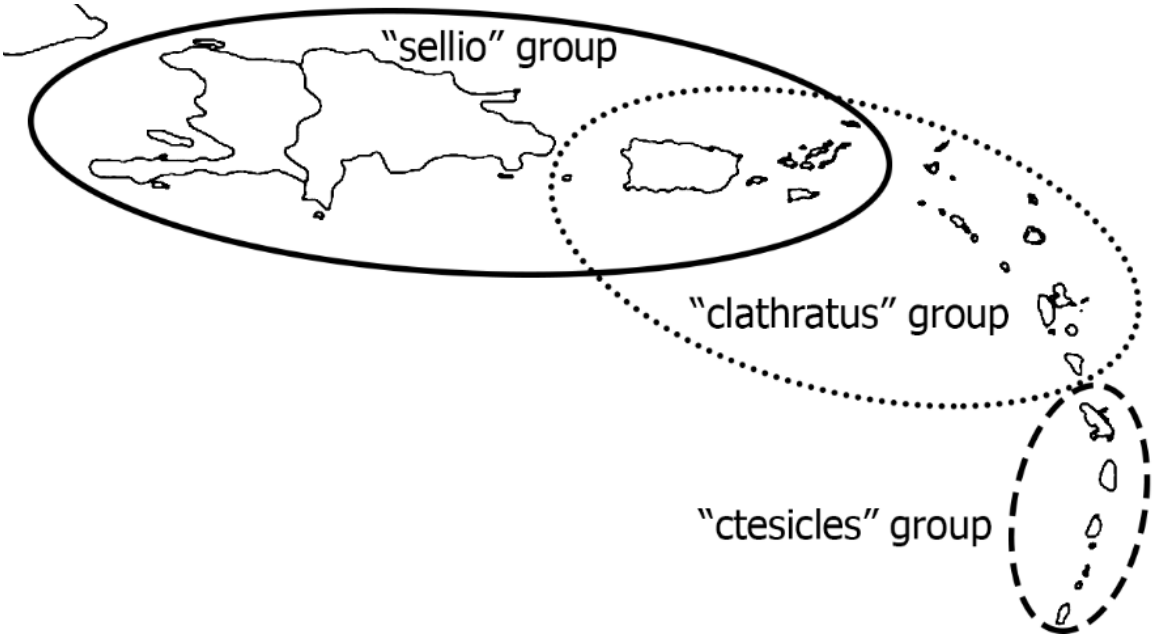


Figure 109. Map of Hispaniola species distributions.

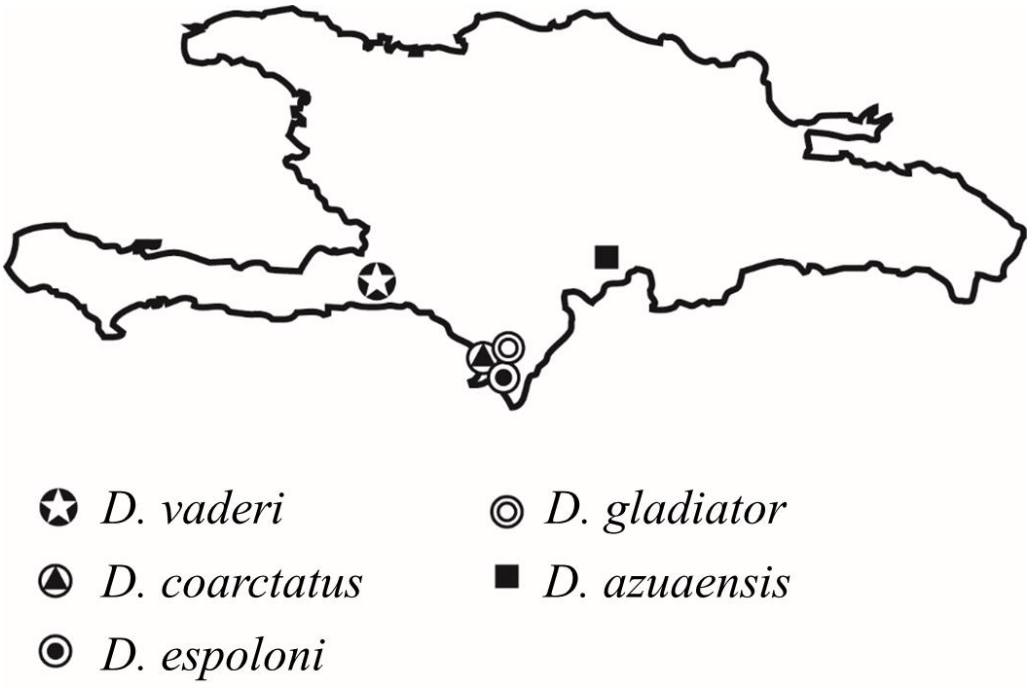


Figure 110. Map of Puerto Rico and Virgin Islands “sellio” group species distributions. Note: Symbols on Puerto Rico represent collecting localities and symbols on the Virgin Islands represent island distributions, not all collection events.

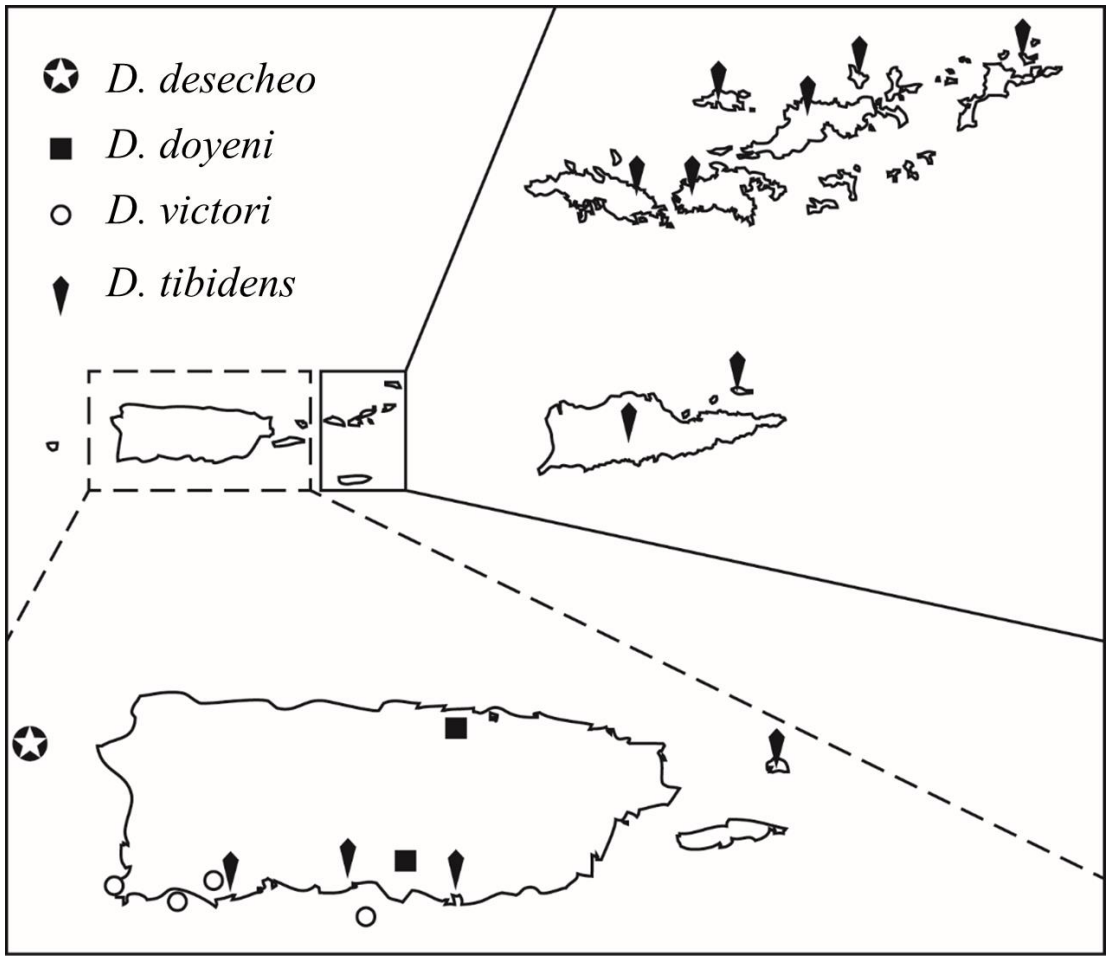


Figure 111. Map of Puerto Rico and Virgin Islands “clathratus” group species distributions Note: Symbols represent island distributions, not all collection events.

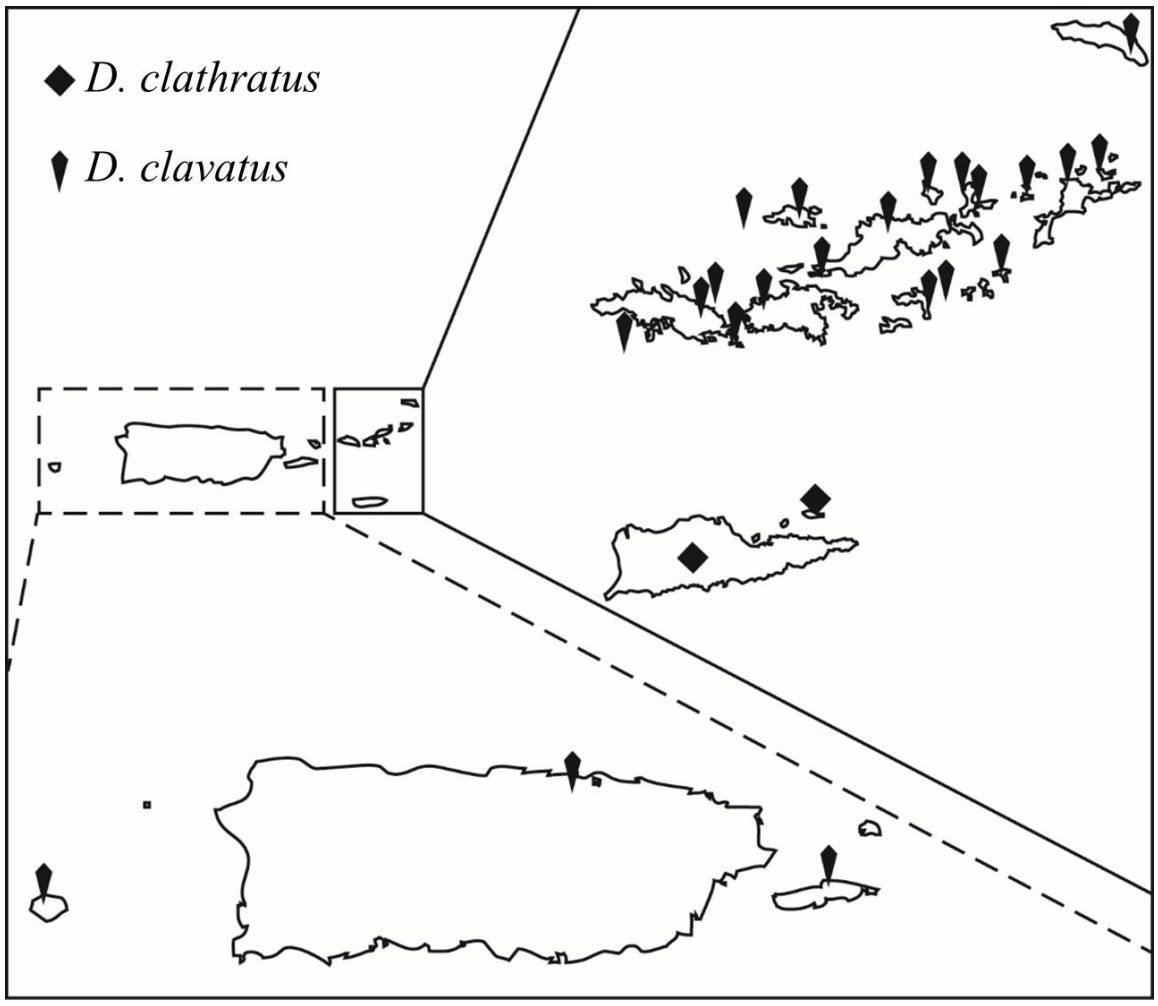
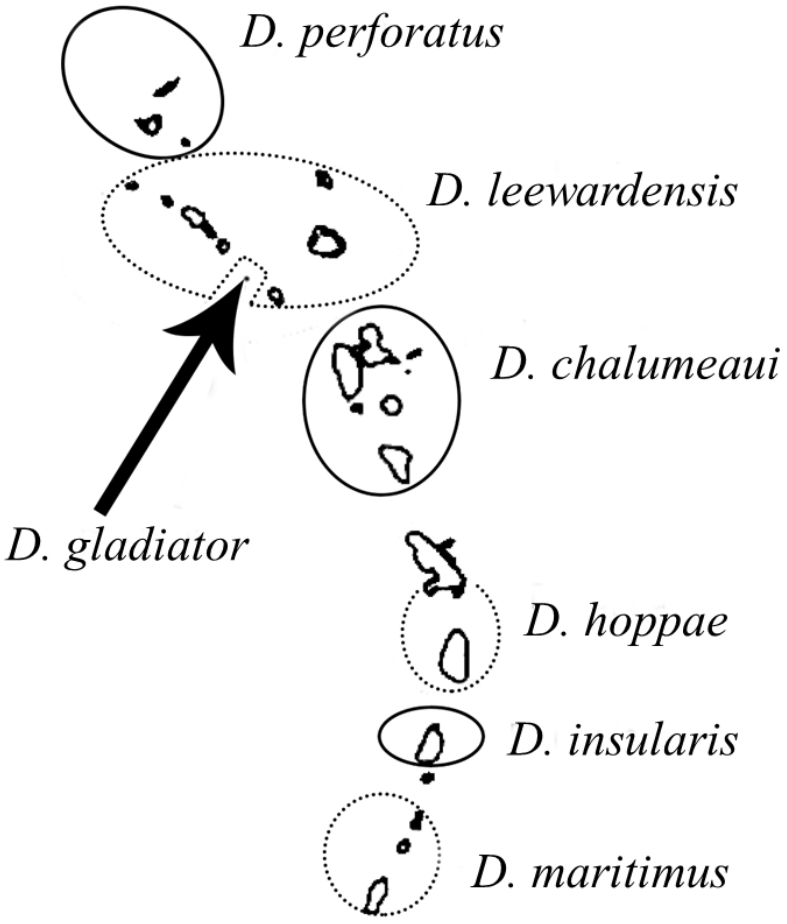


Figure 112. Map of Lesser Antilles species distributions.



APPENDIX B

HOL/ XBIO DATA