

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

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ABSTRACT

The West Indian genus *Diastolinus* Mulsant and Rey, 1859 (type species: *Blaps clathratus* Fabricius) is revised. 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** (Guadeloupe Archipelago); *Diastolinus leewardensis* Hart and Ivie, **new species** (Leeward Islands); *Diastolinus shieli* Hart and Ivie, **new species** (Redonda); *Diastolinus azuaensis* Hart and Ivie, **new species** (Hispaniola); *Diastolinus desecheo* Hart and Ivie, **new species** (Desecheo Island); *Diastolinus doyeri* Hart and Ivie, **new species** (Puerto Rico); *Diastolinus vaderi* Hart and Ivie, **new species** (Hispaniola); and *Diastolinus hoppae* Hart and Ivie, **new species** (St. Lucia). The following new synonymies 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, 2004 = *Diastolinus coarctatus* (Mulsant and Rey, 1859), **new synonymy**. A lectotype and paralectotypes are designated for *Diastolinus hummelincki* Marcuzzi, 1962 (not Marcuzzi, 1949 nor 1950), *Blaps clathrata* Fabricius, 1792, *Ctesicles insularis* Champion, 1896, and *Ctesicles maritimus* Champion, 1896. All species are keyed, illustrated, and redescribed, and extensive corrections of misidentifications are reviewed. All 18 species are readily distinguished by both morphological and biogeographical attributes. Newly revised distributions demonstrate that most species distributions can be closely tied to Pleistocene eustatic minima.

Key Words: West Indies, Caribbean, taxonomy, darkling beetles, xerophiles, Pleistocene eustatic minima

Diastolinus Mulsant and Rey are small to moderate-sized (~4.8–10.6 mm) blapstinoid beetles distributed in the eastern Greater Antilles (Hispaniola, Puerto Rico, and the Virgin Islands), and the Lesser Antilles. Ivie and Hart (2016) defined the West Indian blapstinoid group as members of the Opatrina *sensu* Iwan (2001) 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 (*e.g.*, Figs. 25, 52, 57), and having the male foretarsus expanded (*e.g.*, Figs. 25, 51, 63). Among the blapstinoids, *Diastolinus* is characterized by diverse body forms sharing the flightless syndrome discussed by Ivie and Hart (2016; see also Hopp and Ivie 2009), *i.e.*, rounded humeral angles (*e.g.*, Figs. 4, 8, 12), short metasternum (Fig. 57), absent or reduced flight wings; intercoxal process of ventrite 1 broad and truncate anteriorly (*e.g.*, Figs. 5, 9, 13, 28); fused elytra; ventrite 1 with a series of strong punctures at the anterior margin, immediately behind the metacoxa (*e.g.*, Figs. 5, 9, 13, 28); 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 (Figs. 2, 27, 88; Ivie and Hart 2016, fig. 52).

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* Dejean. This wingless condition seems to have freed the epipleuron and humeral structures to be radically different in form, possibly explaining the diversity of forms and shapes exhibited in *Diastolinus*.

As redefined by Ivie and Hart (2016), *Diastolinus* includes 13 currently recognized species, of which three are synonymized herein and another eight newly described. This flightless group is common in xerophytic habitats within its range (Hispaniola to Grenada), although details of its biology are unknown. *Diastolinus* now includes the genera *Sellio* Mulsant and Rey and *Ctesicles* Champion, but excludes many former *Diastolinus* that Ivie and Hart (2016) removed to *Xerolinus* Ivie and Hart, *Blapstinus*, *Goajiria* Ivie and Hart, and *Nevisia* Marcuzzi.

Ivie and Hart (2016) review the broader taxonomic history of the West Indian blapstinoids and the resulting redefinition of *Diastolinus* used herein.

For purposes of zoological nomenclature, that paper has priority over this, under the principle of First Revisor. 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 type species of *Sellio* 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 nudum* attributed to Gyllenhal, placed in synonymy with Fabricius' (1792) valid name *Blaps punctata* (*B. punctatus* is now the type species of *Blapstinus*). Two years later, Sahlberg (1823) made the name available when he first applied a description to the name *Opatrum perforatum*. For a full discussion of the availability of this name and its authorship, see the Discussion under *Diastolinus perforatum* (Schönherr, 1806).

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, 1896 was originally said to be distantly allied to *Diastolinus*, but no direct comparison was made between the two genera (Champion 1896). In that paper, Champion named two species: *Ctesicles insularis* and *Ctesicles maritimus*.

Diastolinus as now defined was largely untouched besides species lists (Leng and Mutchler 1914; Gebien 1938; 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 the South American fauna (Marcuzzi 1949, 1950, 1954, 1959), now placed in *Goajiria*. It was not until 1962 that he described any new West Indian species of true *Diastolinus* – *Diastolinus hummelincki* Marcuzzi, 1962. Unfortunately, he apparently forgot that he had already named a completely different species *Diastolinus hummelincki* Marcuzzi, 1949 (now in *Goajiria*) from South America. He replaced his own primary homonym in 1971 with the name *Diastolinus mulsanti* Marcuzzi, 1971. A few years later, he described *Diastolinus elongatus* Marcuzzi, 1977 from Puerto Rico. However, this was also a self-made primary homonym of *Diastolinus elongatus* Marcuzzi, 1976 from Cuba (now in *Xerolinus*). *Diastolinus elongatus* Marcuzzi, 1977 (not 1976) from Puerto Rico was replaced by Garrido (2002) with the new replacement name

Diastolinus victori Garrido, 2002 for the Puerto Rican species. In addition to naming species, Marcuzzi (1984, 1998, 2001, 2002) added many new island records to the point that it seemed most species were widespread and sympatric.

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

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, species definitions are difficult to interpret, relationships between species are not well understood, and mistakes in the recorded distributions are rampant. Ivie and Hart (2016) give a long and detailed discussion of the resulting confusion.

MATERIAL AND METHODS

An attempt was made to see types, photographs 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 be verified by vouchers, topotypic material, or known distributions are placed as *incertae sedis*.

Specimens from the following collections were studied:

- AMNH – American Museum of Natural History, New York, NY (Lee H. Herman).
- BMNH – The Natural History Museum, London, UK (Maxwell V. L. Barclay).
- EMEC – Essig Museum of Entomology, University of California, Berkeley, CA (Cheryl Barr).
- EPRL – University of Puerto Rico at Mayagüez, Mayagüez, PR.
- FMNH – Field Museum of Natural History, Chicago, IL (Crystal Maier).
- FSCA – Florida State Collection of Arthropods, Gainesville, FL (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, PR (Antonio Pérez Asso, Orlando H. Garrido).
- MLPC – Martin Lillig, personal collection, Department of Environmental Sciences, University of Basel, Basel, Switzerland.

- MNHC – Museo Nacional de Historia Natural, La Habana, Cuba (Orlando H. Garrido).
- MNHN – Muséum National d’Histoire Naturelle, Paris, France (Antione Mantilleri).
- MSNG – Museo Civico di Storia Naturale “Giacomo Doria,” Genova, Italy (Roberto Poggi).
- NHMB – Naturhistorisches Museum, Basel, Switzerland (Eva Sprecher).
- NHRS – Naturhistoriska riksmuseet, Stockholm, Sweden (Johannes Bergsten).
- NMNH – National Museum of Natural History, Washington, DC (Warren E. Steiner).
- OSUC – The Ohio State University, Columbus, OH (Luciana Musetti).
- WIBF – West Indian Beetle Fauna Project Collection, Montana State University, Bozeman, MT (Michael A. Ivie). Holotypes designated from WIBF material are deposited in the NMNH.
- ZMUC – Natural History Museum of Denmark, University of Copenhagen, Copenhagen, Denmark (Alexey Solodovnikov, Kenneth Puliafico).

Morphological characters of adult specimens form 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 heritable 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 initially difficult as specimens of *Diastolinus* are often encrusted in debris and/or waxy secretions. To best view external morphological structures, select specimens, especially those used in photographs, were relaxed and cleaned as described by 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 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 Synchroscope Auto-montage[®], and modified in Adobe Photoshop[®] CS6 and Adobe Illustrator[®] CS6. Illustrations were made with a drawing tube attached to a Wild[®] M5A stereomicroscope.

A printed red label with the words ‘HOLOTYPE’ on top, the species name in the middle, and ‘Hart and Ivie 2016’ at the bottom was added to each holotype. Paratypes were labeled similarly, except ‘PARATYPE’ on a blue label. A red label with the words ‘LECTOTYPE’ on top, the species name in the middle, and the respective author name at the bottom was 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 (see Ivie and Hart 2016, Material and Methods and table 1 for a list of abbreviations and conventions). 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 [e.g., “Buck Is. (STX)” vs. “Buck Is. (STT)”. Label data are recorded following the convention of Ivie (1985), with lines separated by a semicolon (;) and labels by a slash (/).

RESULTS

Diastolinus Mulsant and Rey, 1859

Diastolinus Mulsant and Rey 1859: 74, 1860: 138.

Type species: *Blaps clathrata* Fabricius, 1792 by subsequent designation of Lucas 1920: 236. Gebien 1938: 294 [413]; Blackwelder 1945: 524; Marcuzzi 1986: 179, 1989: 355, 1998: 153; Iwan 2004: 739.

Sellio Mulsant and Rey 1859: 105, 1860: 169.

Type species: *Blaps tibidens* Quensel, 1806 by subsequent designation of Gebien 1938: 407 [444]. Blackwelder 1945: 525; Iwan 2004: 739.

Ctesicles Champion 1896: 7. Type species: *Ctesicles insularis* Champion, 1896 by subsequent designation of Lucas (1920). Gebien 1938: 401 [438]; Blackwelder 1945: 524.

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 striae are typically 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 (Figs. 2, 27, 88); the metathoracic wings are reduced or absent; the metaventricle is very short, usually shorter than the mesocoxal cavity (Fig. 57); intercoxal process of ventrite 1 broad, truncate anteriorly (Figs. 5, 9, 13, 29); ventrite 1 immediately behind the metacoxa is modified with a row of greatly enlarged deep pits (e.g., Figs. 5, 9, 13, 29), and the aedeagus is strongly arched in lateral view (e.g., Figs. 11, 15). The parameres are highly variable in dorsal view but are never of the 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 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 3 antennomeres typically fuscous, sometimes entire antenna reddish black, palps reddish brown, sometimes tarsi reddish brown (teneral individuals may be reddish brown); typically matte, sometimes shiny, 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; 2 tufts of golden setae on apical margin. Antenna (Fig. 2) 11-segmented, weakly clavate to clavate. Eyes small; divided by genal canthus; dorsal and ventral portions of eye roughly equal in size, variably shaped from perfectly rounded to ovate. Gula with transverse ridge at sides prolonged into erect, horn-like tubercles, 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 width across humeri; basal margin bisinuate; dorsal surface typically broadly, evenly convex; all margins narrowly beaded, except usually obsolete at middle of anterior margin; typically punctate, punctuation 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 1/3 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 striae 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. Metaventricle (Fig. 2) short, usually equal to or shorter than mesocoxal cavity; typically with punctate on 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 1/2. Protibia typically expanding gradually in distal 2/3; surface with variably stout spines. Male protarsus with tarsomeres 1–3 expanded, tarsomere 2 widest, typically 1.5–2.0X width of tarsomere 4, ventrally with golden, densely setose pads; female protarsus 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; intercoxal process of ventrite 1 broad, truncate anteriorly; 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 punctuation). 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 purported larvae have been described (Marcuzzi and Cravera 1981). However, we have not confirmed the association between the adult and larvae, 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 habitats for *Diastolinus* species are seasonally dry tropical woodlands. 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 nests of the brown booby nests, *Sula leucogaster* (Boddaert). Collecting localities vary from low lying coastal thorn scrub, dunes and beaches at 0 m, and up to 2,100 m above sea level in dry tropical forest.

Distribution. Species of *Diastolinus* are known from the Greater Antilles (Hispaniola, Puerto Rico, US 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, although they probably do not all constitute monophyletic groups. 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 Antilles south to Dominica. The species in this group (Figs. 1–29) are oval, moderate to large in size (6.9–10.6 mm long), with the anterior third of the elytra not constricted, the base of the elytra equal to or subequal to the width of the base of the pronotum, and the male protibiae never armed.

The “sellio” species-group (Table 2) is distributed in southern Hispaniola, Puerto Rico, and the Virgin Islands. The members of this species-group (Figs. 30–79) are 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 stria 8 joins the lateral stria, to less than the basal width of the pronotum. The elytra may expand anterior of the constricted point to subequal the width of the posterior edge of the pronotum, or the posterior edge of pronotum may be wider than the base of the elytra. The femora are typically swollen and clavate, especially in the

male fore legs. The male protibiae are often armed with a distinct, 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), elongate, with the pronotum widest before the mid-point, and the elytra slightly broader across the humeri than the base of the pronotum and entirely covered in large, evenly spaced punctures (Figs. 80–97).

KEY TO THE SPECIES OF *DIASTOLINUS*

Note. Specimens should be cleaned prior to using the key (see Material and Methods).

1. Anterior 1/3 of elytra, anterior of the point where 8th stria joins lateral stria, constricted to less than basal width of pronotum (Figs. 30, 36, 61, 68), elytra sometimes slightly expanded anteriorly from constricted point to subequal width of posterior edge of pronotum, or posterior edge of pronotum wider than base of elytra; femora typically swollen (Fig. 61), especially in male forelegs, somewhat less so in females. Hispaniola, Puerto Rico, Virgin Islands..... 2
- 1'. Anterior 1/3 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); interstriae not convex; base of elytra, including humerus, much narrower than pronotum. Hispaniola 3
- 2'. Elytra costate (Fig. 2), interstriae convex; base of elytra subequal 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 striae punctation equal to interstitial punctation, punctation dense, small and shallow; male protibia

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
<i>Diastolinus chalumeaui</i> Hart and Ivie	NEW SPECIES	WIBF*
<i>Diastolinus clathratus</i> (Fabricius)	VALID SPECIES	ZMUC
<i>Diastolinus clavatus</i> Mulsant and Rey	VALID SPECIES	MNHN?
<i>Diastolinus hummelincki</i> Marcuzzi	JUNIOR SYNONYM	HNHM
<i>Diastolinus mulsanti</i> Marcuzzi and D'Aguilar	JUNIOR SYNONYM	HNHM
<i>Diastolinus leewardensis</i> Hart and Ivie	NEW SPECIES	WIBF*
<i>Diastolinus perforatus</i> (Schönherr)	VALID SPECIES	NHRS
<i>Diastolinus shieli</i> 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
<i>Diastolinus azuaensis</i> Hart and Ivie	NEW SPECIES	WIBF*
<i>Diastolinus coarctatus</i> (Mulsant and Rey)	VALID SPECIES	MNHN?
<i>Diastolinus estebani</i> Garrido	JUNIOR SYNONYM	MNHC
<i>Diastolinus desecheo</i> Hart and Ivie	NEW SPECIES	OSUC
<i>Diastolinus doyeri</i> Hart and Ivie	NEW SPECIES	AMNH
<i>Diastolinus espoloni</i> Garrido	VALID SPECIES	HPPR
<i>Diastolinus gladiator</i> (Garrido)	VALID SPECIES	MNHC
<i>Diastolinus tibidens</i> (Quensel)	VALID SPECIES	NHRS
<i>Diastolinus vaderi</i> Hart and Ivie	NEW SPECIES	FSCA
<i>Diastolinus victori</i> Garrido	NEW SPECIES	MSNG

- armed with multiple short teeth, not a single distinct spine (Fig. 57). Dominican Republic (Pedernales Province) ***D. gladiator***
- 3'. Upper surface shiny, glossy, without setae (Fig. 68); elytra with large, deep striae punctation, interstriae punctation minute and sparse; male protibia 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, if present, setae short and sparse; elytral pubescence, if present, less than 1/2 width of interstriae 7
5. Base of elytra subequal to width of pronotum (Figs. 30, 36); scutellum short, mostly hidden and crescent-shaped if visible; body robust, very convex, greater than 8.5 mm in length. Hispaniola 6
- 5'. Base of elytra, including humeri, 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 protibia 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 subequal in length to elytral setae; punctation on pronotal disk typically spaced greater than diameter of a puncture. Dominican Republic (Azua Province) ***D. azuaensis***
- 6'. Male protibia unarmed; scutellum very short, mostly hidden (Fig. 36); pronotum with setae shorter than elytral setae; punctation on pronotal disk typically spaced less than or equal to the diameter of a puncture (Fig. 37). Dominican Republic (Pedernales Province) ***D. coarctatus***
7. Pronotum with subrugose, sometimes confluent punctures antero-laterally on disc (Fig. 52); male protibia armed with a single distinct spine (Fig. 51). Dominican Republic (Pedernales Province) ***D. espoloni***
- 7'. Pronotum with punctures normal, not subrugose, distinctly separate; male protibia unarmed. Puerto Rico and satellite islands 8
8. Abdominal ventrites nearly glabrous, with at most a few white or pale setae; gular horn short, length less than 1.5X basal width. Body less than 9 mm in length (Fig. 46, 48). Puerto Rico ***D. doyeri***
- 8'. Abdominal ventrites with some yellow setae; gular horn large and prominent, length nearly 2X basal width. Body greater than 9.3 mm in length 9
9. Elytra with striae punctation relatively shallow (Fig. 41); bead on pronotal anterior

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
<i>Diastolinus hoppae</i> Hart and Ivie	NEW SPECIES	WIBF*
<i>Diastolinus insularis</i> (Champion)	VALID SPECIES	BMNH
<i>Diastolinus maritimus</i> (Champion)	VALID SPECIES	BMNH

- margin complete (Fig. 100); body somewhat oblong; punctuation on abdominal ventrites 2 and 3 shallow (Fig. 43); parameres not spade-shaped, gently tapering distally (Figs. 44, 45). Puerto Rico (Desecheo Island).....
D. desecheo
- 9'. Elytra with strial punctuation deeper (Fig. 73); bead on pronotal anterior margin obsolete medially (Fig. 101); body elongate; punctuation on abdominal ventrites 2 and 3 larger and deeper (Fig. 77); parameres spade-shaped, abruptly 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 4.8–6.5 mm). Southern Lesser Antilles (Martinique, St. Lucia, St. Vincent, Grenada) 11
- 10'. Dorsal surface of pronotum and ventral surface of 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 punctuation deeply impressed with punctures commonly interrupting and overflowing onto interstriae (Figs. 86, 88, 92, 94). St. Vincent, Grenadines, Grenada 12
- 11'. Strial punctuation shallower, punctures rarely interrupting and overflowing onto interstriae (Figs. 80, 82). Martinique, St. Lucia.....
D. hoppae
12. Elytra strongly costate, intervals narrow and somewhat shiny, punctuation very heavily impressed (Figs. 87, 88); lateral margin of pronotum somewhat angular; parameres with nearly straight apical margin (Fig. 90). St. Vincent.....*D. insularis*
- 12'. Elytra weakly costate, intervals broad and opaque, punctuation not as heavily impressed (Figs. 93, 94); lateral margin of pronotum evenly rounded; parameres rounded at apex, with apical margin weakly emarginate (Fig. 96). Grenada, Grenadines (Mustique)*D. maritimus*
13. Pronotal disc covered with many short, erect, usually yellowish setae, at least 1–2X length of diameter of pronotal punctuation (setae rarely worn off pronotal disc, but remain visible on the lateral edges of 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 subequal to length of puncture diameter (Figs. 8, 12, 24). Puerto Rico, Mona, Virgin Islands (except St. Croix), Sombrero, Anguilla Bank, Guadeloupe, Dominica 18
14. Elytra glossy, shiny; some strial punctures confluent; body shape oval (Fig. 1). St. Croix*D. clathratus*
- 14'. Elytra matte black, not shiny (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 margins of pronotum evenly rounded (Figs. 16, 20), widest point appearing anterior of hind angles; typically 2 or fewer punctures evident on sutural stria just posterior to scutellum (specimens must be clean); gular horn small, less prominent, length less than 1.5X basal width. Saba, St. Eustatius, St. Kitts, Nevis, Barbuda, Antigua, Montserrat, Redonda 16
- 15'. Lateral margins of pronotum widened posteriorly (Figs. 42, 75), widest point apparently at hind angles; typically 3 or more punctures evident on sutural stria just posterior to scutellum (specimens must be clean); gular horn large and prominent, length nearly 2X basal width (Fig. 76). Puerto Rico (and satellite islands)..... 17
16. Elytra with dense, long, typically yellowish setae; parameres tapering gradually distally (Figs. 20–23). Redonda*D. shieli*
- 16'. Elytra with short, sparse, typically white or pale setae; 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); bead on pronotal anterior margin complete (Fig. 100); body somewhat oblong; punctuation on abdominal ventrites 2 and 3 shallow (Fig. 43); parameres not spade-shaped, gently tapering distally (Figs. 44, 45). Puerto Rico (Desecheo Island).....*D. desecheo*
- 17'. Elytra with strial punctuation deeper (Fig. 73); bead on pronotal anterior margin obsolete medially (Fig. 101); body elongate;

- punctuation on abdominal ventrites 2 and 3 larger and deeper (Fig. 77); 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 row of distinct, heavy punctures at anterior edge of ventrite, instead with at most 1 or 2 shallow punctures near lateral edge of ventrite (Fig. 28). Sombrero, Anguilla Bank (Anguilla, St. Barthélemy, 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 row of distinct, heavy punctures at anterior edge of ventrite (Figs. 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; 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 pale setae; parameres tapering almost to a point distally and with straight lateral margin (Figs. 14, 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, moderate to large size (6.9–10.6 mm long), anterior 1/3 of the elytra not constricted, base of the elytra equal to or subequal to the width of the base of pronotum, and male protibiae never armed. The “clathratus” species-group is distributed throughout Puerto Rico, the Virgin Islands, and the Northern Lesser Antilles south to Dominica (Fig. 102).

***Diastolinus clathratus* (Fabricius, 1792)**

(Figs. 1–7, 105)

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), 1977: 13 (in part, St. Croix records only), 1984: 77 (in part, St. Croix records only), 2001:250 (in part, St. Croix records only), Marcuzzi and D’Aguilar 1971: 80 (in part, St. Croix records only); Soldati and Touroult 2014: 99 (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), 1977: 19 (in part, St. Croix records only), 1984: 78 (in part, St. Croix records only), 2001: 249 (in part, St. Croix records only); Marcuzzi and D’Aguilar 1971: 80 (in part, St. Croix records only); Peck 2011a: 33 (in part, St. Croix records only), 2011b: 29 (in part, St. Croix records only), 2016: 160 (in part, St. Croix records only); Peck *et al.* 2014: 84 (in part, St. Croix records only); Soldati and Touroult 2014: 99 (in part, St. Croix records only).

Type Material. Fabricius (1792) did not indicate the number of specimens he used in his description, therefore, a lectotype is required. Lectotype in ZMUC (examined), here designated, is a male specimen (Fig. 2) bearing the labels “clathratus” in Fabricius’ hand and “ZMUC000 22787” (Fig. 6).

Other Material Examined. See Appendix 1.

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

Redescription. Male. Length 7.2–9.2 mm, width 3.3–4.3 mm. Body (Fig. 1) black, except last 3 antennomeres testaceous, sometimes last antennomere almost golden (dependent on preservation); elytral and ventral surface shiny, head and pronotum matte; 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 subequal to diameter of ommatidium, covering dorsal surface, evenly spaced, separated by 1–2X puncture diameters; setae 2X longer than puncture diameter. 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 2/5, then sides nearly parallel to base; basal width subequal to width across humeri;



Figs. 1–7. *Diastolinus clathratus*. 1) Dorsal habitus; 2) Holotype, lateral view; 3) Aedeagus, dorsal view; 4) Humeral angle, dorsal view; 5) Abdominal ventrites; 6) Holotype label; 7) Aedeagus, lateral view.

basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; minutely punctate, puncture diameter 1/2 that of

punctures on head, spaced 2–4X puncture diameter on pronotal disc; setae typically rubbed off pronotal disc, fine, light colored 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 longer than 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; stria punctures deep and sometimes confluent; intervals convex, punctuation minute, even. Stria 7 (Fig. 2) ending in lateral stria slightly posterior to humeral angle.

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

Leg (Fig. 2) surfaces setose and finely punctate. Protibia narrow, expanding gradually in distal 2/3; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical 2/3; 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 2/3 as long as metatibia, without setose pads; 1st tarsomere more than 2X length of 2nd.

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 1/3 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. Pro- 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 0–106 m above sea level.

Distribution. St. Croix, Buck Is.* (STX, WIBF) (Fig. 105).

Discussion. This is the oldest, and type, species in *Diastolinus*. Its nomenclatural history has

been clouded by misidentifications, both using this name for populations that are not conspecific and using other names for this species. The synonymical tables record these misadventures, mostly by or resulting from work by Marcuzzi. Our findings are that this is a single-bank endemic of the St. Croix Bank, and all other records for this species are moved to other species.

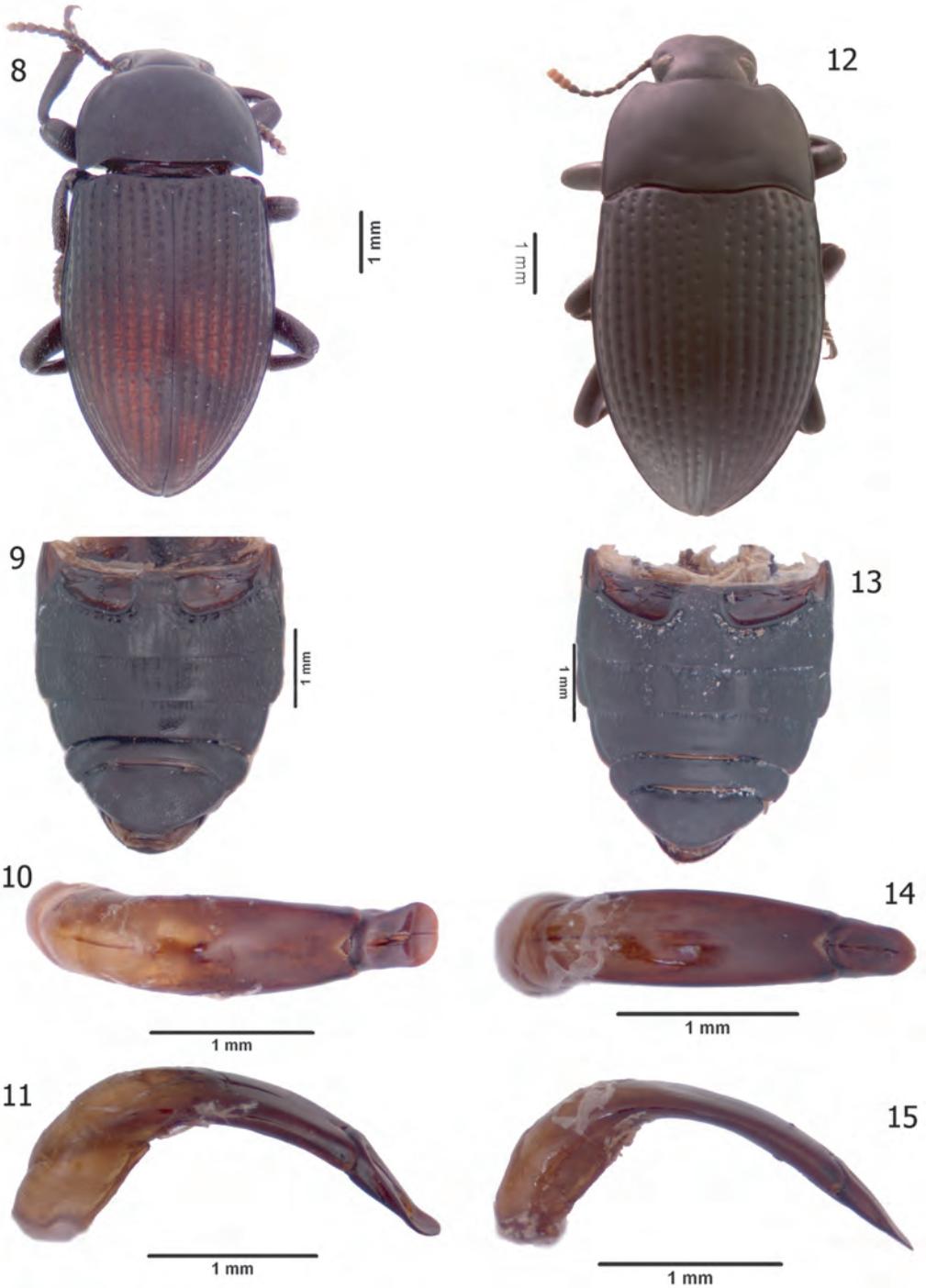
***Diastolinus chalumeaui* Hart and Ivie,
new species
(Figs. 8–11, 106)**

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), 1977: 19 (in part, Les Saintes, La Désirade, Guadeloupe, records only), 1984: 78 (in part, Guadeloupe records only); 2001: 249 (in part, Guadeloupe records only); Marcuzzi and D'Aguilar 1971: 80 (in part, Guadeloupe, Les Saintes records only); Chalumeau 1982: 192 (Marie-Galante); Peck 2011a: 33 (in part, Guadeloupe, Les Saintes, La Désirade, Marie-Galante records only), 2011b: 29 (in part, Guadeloupe, Les Saintes, La Désirade, Marie-Galante records only), 2016: 160 (in part, Guadeloupe, Les Saintes, La Désirade, Marie-Galante records only); Peck *et al.* 2014: 84 (in part, Guadeloupe, Les Saintes, La Désirade, Marie-Galante records only); Soldati and Touroult 2014: 99 (in part, Guadeloupe, 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), 2016: 160 (in part, Dominica, La Désirade records only); Peck *et al.* 2014: 84 (in part, Dominica, La Désirade records only); Soldati and Touroult 2014: 99 (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), 2016: 160 (in part, Marie-Galante records only); Peck *et al.* 2014: 84 (in part, Marie-Galante records only).

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



Figs. 8–15. *Diastolinus chalumeaui*, holotype: **8)** Dorsal habitus; **9)** Abdominal ventrites; **10)** Aedeagus, dorsal view; **11)** Aedeagus, lateral view. *Diastolinus clavatus*: **12)** Dorsal habitus; **13)** Abdominal ventrites; **14)** Aedeagus, dorsal view; **15)** Aedeagus, lateral view.

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 holotype (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. See Appendix 1.

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

Diagnosis. This species can be distinguished by the combination of the base of the pronotum subequal to width across the humeri, matte dorsal surface, dorsal surface without apparent setae, gracile legs with a narrow metatarsus, tarsomere 1 more than 2X length of tarsomere 2, regularly, finely punctate abdominal ventrites, abdominal ventrites 2 and 3 with a row of distinct heavy punctures at the anterior edge of the ventrite, and male genitalia with the parameres slightly widened from the 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 3 antennomeres mostly testaceous; matte surface; ovate-oblong; widest at middle, convex; dorsal surface sparsely setose, ventral surfaces covered in very short, light colored setae.

Head with epistoma evenly convex; punctures less than diameter of ommatidium, covering dorsal surface, separated by 1–2X puncture diameter except spaced less than 1X puncture diameter on anterior margin. Labrum densely punctate. Antenna 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 2/5, then sides subparallel to base; basal width subequal to width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; finely punctate, puncture diameter 1/2 that of punctures on head, spaced 2–3X puncture diameter on pronotal disc. Hypomeron rugulose, almost impunctate. Prosternal process lanceolate, shallowly punctate, rarely with pale, semi-erect setae 2X longer than 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; stria punctures deep, not confluent; intervals broadly convex, punctation minute, even. Stria 7 ending in lateral stria slightly posterior to humeral angle.

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

Leg surfaces finely punctate. Femora somewhat clavate; profemur expanded. Protibia narrow, expanding gradually in distal 3/4; dorsolateral margin slightly arcuate; posteroventral surface with stout spines in apical 2/3; apex obliquely truncate, ringed by stout spines. Pro- and metatarsi 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 3/4 as long as metatibia, without setose pads; 1st tarsomere more than 2X length of 2nd.

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 striae sometimes follow; ventrite 5 flattened medially, finely punctate, posterior margin evenly rounded. Aedeagus (Figs. 10, 11) with basal piece and parameres strongly arched, slightly less than 1/2 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 7.0–8.7 mm, width 3.2–4.0 mm. Similar to male except body more robust and convex than male. Pro- 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 20 m elevation.

Distribution. Basse-Terre, Grande Terre, Ilet de Pigeon* (HNHM, OSUC), Terre-de-Haut, La Désirade, Petite-Terre* (OSUC), Marie-Galante, Dominica (Fig. 106).

Discussion. As shown in the synonymical tables, 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 names with records for Guadeloupe and Dominica actually occur on these islands.

***Diastolinus clavatus* Mulsant and Rey, 1859**
(Figs. 12–15, 99–101, 105)

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 lectotype designation. Also recorded from St. Thomas. Martinique records here excluded) [junior primary homonym of *Diastolinus hummelincki* Marcuzzi, 1949 and 1950]. **New synonymy.**

Comments. Marcuzzi did not designate a holotype for *D. 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 abbreviated 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 Marcuzzi'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 **lectotype**, 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, 2001: 251 (in part, St. Thomas, St. John records only); Peck 2011b: 29 (in part, St. Thomas, St. John records only), 2016: 159 (in part, St. Thomas, St. John records only); Soldati and Tourout 2014: 99 (in part, St. Thomas, St. John 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 *lapsus calami*).

Type Material. *Diastolinus clavatus* types were not examined. They are said to be in the Chevrolat collection, but they were not found in the BMNH (M. Barclay, *in litt.*) nor the Mulsant and Rey collection in Lyon (H. Labrique, *in litt.*). They are possibly in the Oberthur collection in MNHN. *Diastolinus hummelincki* Marcuzzi lectotype is designated above (HNHM).

Other Material Examined. See Appendix 1.

Diagnosis. This species can be distinguished from *D. clathratus* by the matte elytra, not shiny, and 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, humeri equal in width to the base of the pronotum, lack of armed male tibia, male parameres straight, not sinuate in lateral view, and with widest point of parameres basally then tapering evenly. The aedeagus is very similar in form to that of *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 3 antennomeres testaceous; dorsal and ventral surfaces matte, not shiny; 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) with epistoma evenly convex; punctures subequal to diameter of ommatidium, covering dorsal surface, evenly spaced, separated

by 2–3X puncture diameters; setae 2X longer than puncture diameter, present laterally, mostly absent medially. Labrum densely punctate, about 2X size of punctures on head and separated by less than puncture diameter. Antenna clavate (Fig. 12). Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 12, 99) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior 1/3, then sides nearly parallel to base; basal width equal to width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex, all margins narrowly beaded, except obsolete at middle anterior margin; finely punctate, puncture diameter subequal to punctures on head, spaced 3–5X puncture diameter on pronotal disc; pronotal disc lacking setae, rarely minute white setae equal to puncture diameter in length remain laterally. Hypomerion 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; stria punctures deep, distinct, never confluent; intervals slightly convex, punctation minute, evenly spaced. Stria 7 ending in lateral stria at humeral angle.

Mesoventrite smooth, almost shiny; punctures shallow, sparse. Metaventrite short, punctate on anterior border behind mesocoxae.

Leg (Fig. 12) surfaces setose and finely punctate. Protibia narrow, expanding gradually in distal 3/4; dorsolateral margin nearly straight; posteroventral surface with stout spines in apical 2/3; 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 3/4 as long as metatibia, without setose pads; 1st tarsomere 2X length of 2nd.

Abdominal ventrites (Fig. 13) finely punctate; ventrites 1–2 slightly concave medially, concavity 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 (Figs. 14, 15, 100) with basal piece and parameres strongly arched, less than 1/3 elytral length; para-

meres 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. Pro- and mesotarsi not heavily expanded. Abdominal ventrites 1–3 slightly convex medially; ventrite 5 slightly convex; ovipositor as in Fig. 101.

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.

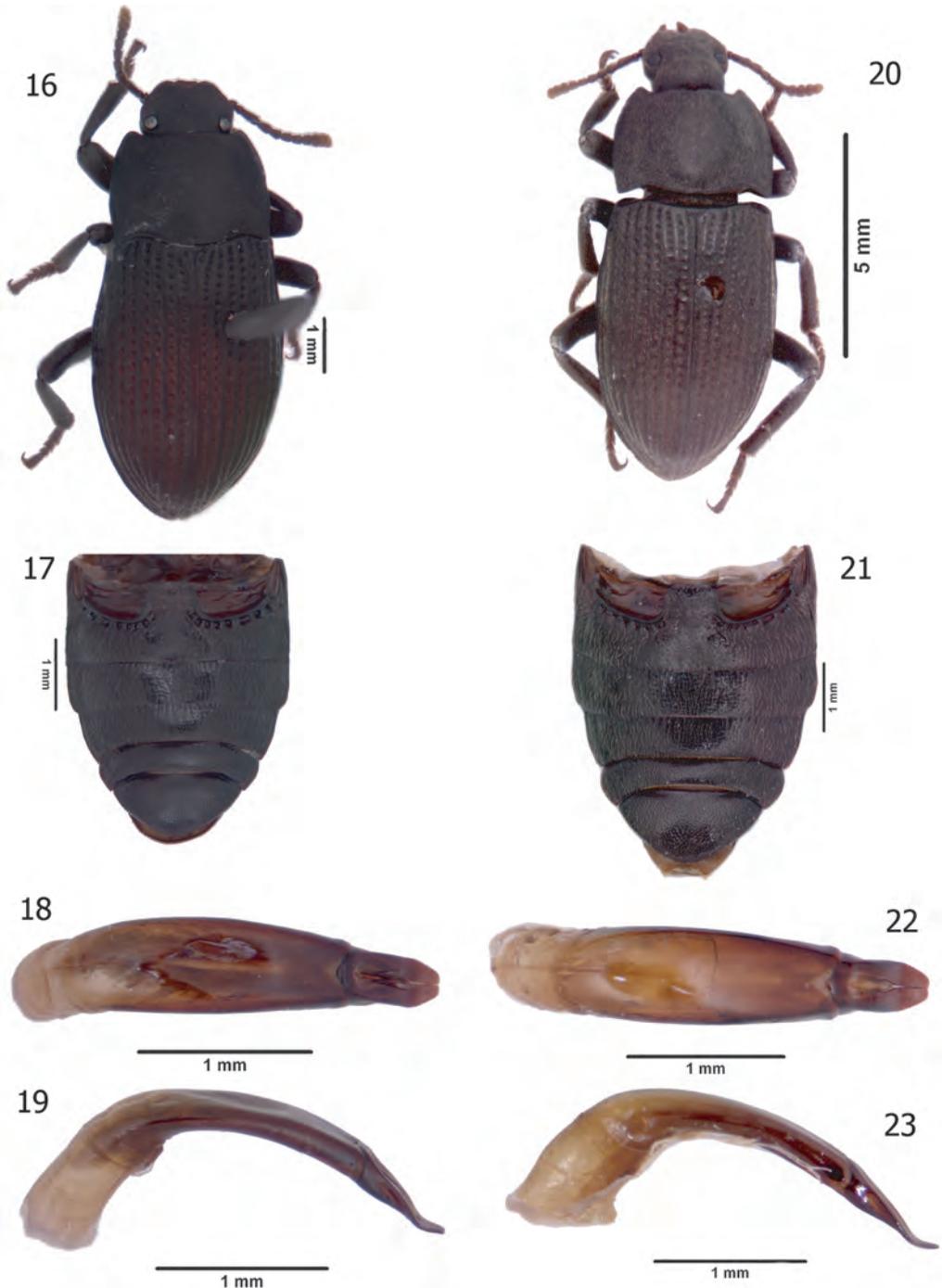
Distribution. Mona, Monito, Puerto Rico, Vieques* (NMNH), St. Thomas, Saba Is.* (STT, WIBF), Buck Is.* (STT, WIBF), Thatch Cay* (STT), Great St. James* (STT, WIBF), Little St. James* (STT, OSUC), St. John, Great Tobago* (Jost van Dyke, NMNH), Tortola* (WIBF), Frenchman Cay* (TOR, NMNH), Beef Is.* (TOR, WIBF), Peter Is.* (TOR, NMNH, WIBF), Dead Chest* (TOR, WIBF), Guana (TOR), Marina Cay* (TOR, WIBF), Great Camanoe* (TOR, WIBF), Virgin Gorda* (WIBF), Ginger Is.* (VG, WIBF), George Dog* (VG, NMNH), Prickly Pear Is.* (VG, WIBF), Anegada* (BMNH, WIBF) (Fig. 105).

Discussion. This species has a tortured nomenclatural history, with misidentifications both adding island records that are incorrect and naming or using existing names that are synonyms for members of this species. As shown in the synonymical lists, this species' name has been widely reported in the region, but our findings show that it is a Puerto Rican Bank endemic. The exceptions are Mona and Monito in the Mona Passage to the west of the Puerto Rican Bank. Human assisted introductions may explain those populations, or over water dispersal.

Diastolinus leewardensis Hart and Ivie,
new species

(Figs. 16–19, 106)

Diastolinus puncticolis: 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), 2016: 160 (in part, ~Antigua, Barbuda, Saba, St. Eustatius, St. Kitts, Montserrat, Nevis records only); Peck *et al.* 2014: 84 (in part,



Figs. 16–23. *Diastolinus leewardensis*, holotype: **16)** Dorsal habitus; **17)** Abdominal ventrites; **18)** Aedeagus, dorsal view; **19)** Aedeagus, lateral view. *Diastolinus shieli*, paratype: **20)** Dorsal habitus; **21)** Abdominal ventrites; **22)** Aedeagus, dorsal view; **23)** Aedeagus, lateral view.

- ~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), 2016: 160 (in part, Antigua, Barbuda, Saba records only); Peck *et al.* 2014: 84 (in part, Antigua, Barbuda, Saba records only); Soldati and Touroult 2014: 99 (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), 1984: 77 (in part, St. Kitts records only); Marcuzzi and D'Aguilar 1971: 80 (in part, St. Kitts records only); Peck 2011a: 33 (in part, St. Kitts records only), 2011b: 29 (in part, St. Kitts records only), 2016: 159 (in part, St. Kitts records only); Soldati and Touroult 2014: 99 (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).

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; 9MAR 2008 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. See Appendix 1.

Etymology. This species is named for its broad distribution throughout the Leeward Islands of the Lesser Antilles.

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

Note. The elytral striae are somewhat less impressed and the striae punctures shallower in Barbuda and Antigua specimens.

Description. Male. Length 7.5-9.1 mm, width 3.1-4.0 mm. Body (Fig. 16) black, except last 3 antennomeres testaceous; upper surface dull, ventral surface somewhat shiny; oblong, almost parallel-sided; widest at middle, moderately convex; scattered pale, short setae.

Head (Fig. 16) with epistoma evenly convex; punctures equal to diameter of ommatidium, covering dorsal surface, evenly spaced, separated by 1X puncture diameter posteriorly, separated by less than 1X puncture diameter anteriorly; setae 2X longer than puncture diameter. Labrum

densely punctate. Antenna clavate. Dorsal and ventral portions of eye subequal 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 1/2, then sides narrowing to base; basal width subequal to width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; punctate, puncture diameter subequal to that of punctures on head, spaced 1X diameter of punctures on pronotal disc; fine pale setae typically 2–4X puncture diameter in length covering surface. Hypomeron feebly rugulose, punctate shallowly. Prosternal process tongue-like, punctate.

Scutellum (Fig. 16) small, subtriangular, about 2X wider than long. Elytron slightly broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; stria punctures deep, never confluent; intervals convex, punctuation minute, even. Stria 7 ending in lateral stria slightly posterior to humeral angle.

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

Leg surfaces setose and finely punctate. Protibia narrow, expanding gradually in distal 2/3; dorso-lateral margin nearly straight; posteroventral surface with small, stout spines in apical 2/3; 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 1/2 as long as metatibia, without setose pads; 1st tarsomere 2X length of 2nd.

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 (Figs. 18, 19) with basal piece and parameres strongly arched, less than 1/2 elytral length; parameres subparallel in basal 2/3, narrowed in apical 1/3, 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. Pro- and mesotarsi not expanded. Abdominal ventrites 1–3 slightly convex medially; ventrite 5 slightly convex.

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 0–400 m above sea level.

Distribution. Antigua, Barbuda, Saba, St. Eustatius, St. Kitts, Nevis, Montserrat (Fig. 106).

Discussion. Echoing the situation for *D. chalumeau* 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. Although the islands where this species occurs were not a single Pleistocene bank, they were all very close during the eusatistic minima. Antigua and Barbuda were connected on the Barbuda-Antigua Shelf, as were adjacent St. Eustatius, St. Kitts, and Nevis on the Statia Shelf. Saba was very close to both these large islands. Only Montserrat is a geographic outlier, as it would have been expected to have *D. chalumeui*, rather than *D. leewardensis*. The existence of the single-island endemic *D. shieli* on Redonda, located between Montserrat and Nevis and in sight of both, is also a surprise. Since Redonda stands between the *D. leewardensis* populations on Nevis and Montserrat, it would be expected to either have the Nevis-Montserrat species, share one with Montserrat, or predict an endemic on Montserrat. Nature is most interesting when it provides these conundrums.

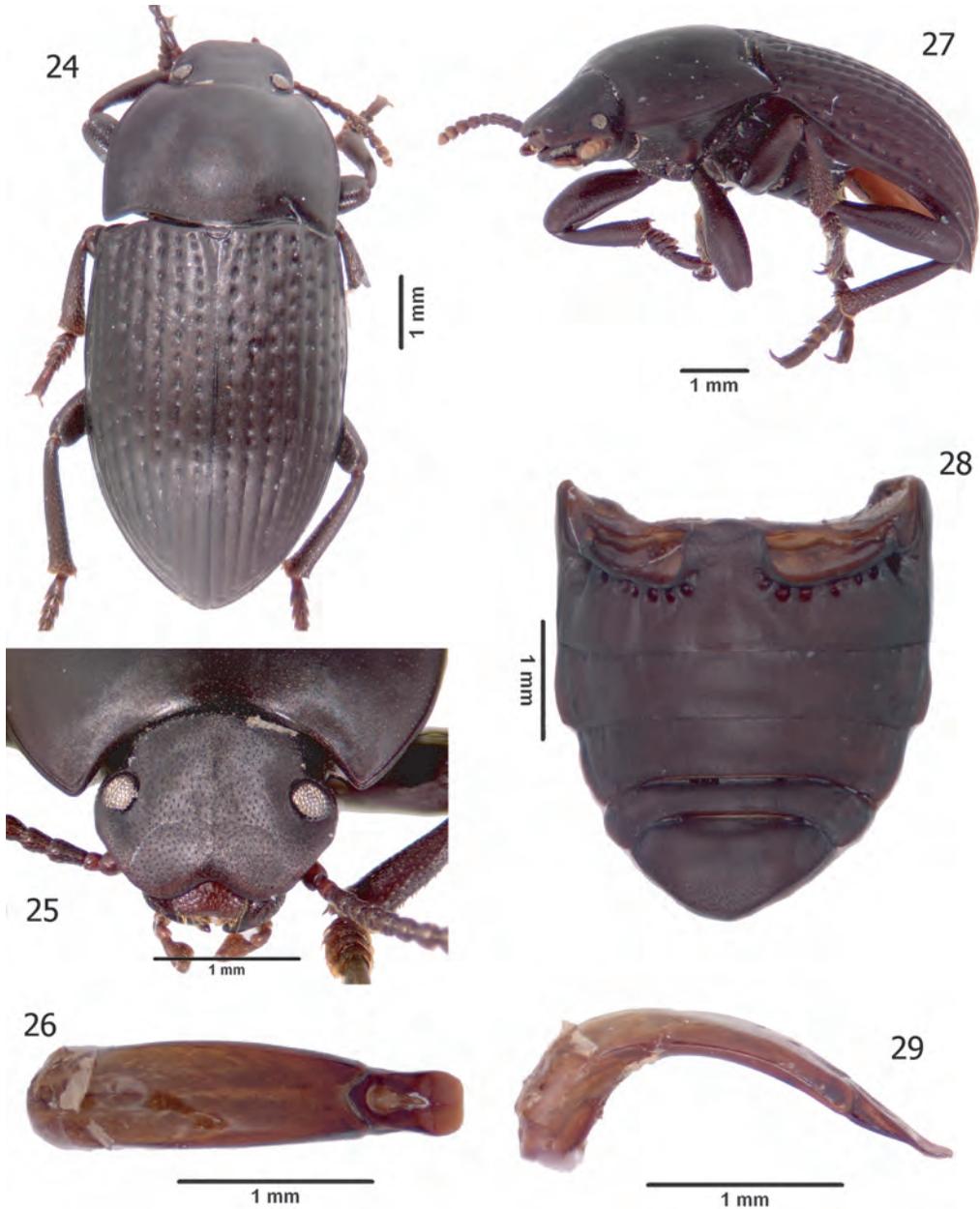
Diastolinus perforatus (Schönherr, 1806)

(Figs. 24–29, 106)

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

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

Diastolinus perforatus; Mulsant and Rey 1859: 77, 1860: 141 (in part, St. Barthélemy records only); Leng and Mutchler 1914: 460 (in part, St. Barthélemy records only); Gebien 1938: 294 [413] (in part, St. Barthélemy records only); Blackwelder 1945: 524 (in part, St. Barthélemy records only); Marcuzzi 1957: 128 (in part, Anguilla, St. Martin, St. Barthélemy records only), 1962: 27 (in part, Anguilla, St. Martin, Île de la Fourche, St. Barthélemy records only), 1977: 19 (in part, St. Martin, Tintamarre, Île de la Fourche, St. Barthélemy, Anguilla records only), 1983: 246 (male genitalia, St. Martin), 1984: 78 (in part St. Martin, Île de la Fourche, St. Barthélemy, Anguilla records only), 1998: 154; 2001: 249 (in part, Anguilla,



Figs. 24–29. *Diastolinus perforatus*. 24) Dorsal habitus; 25) Head; 26) Aedeagus, dorsal view; 27) Lateral habitus; 28) Abdominal ventrites; 29) Aedeagus, lateral view. Figs. 24–26 and 28–29 of Anguilla specimen, Fig. 27 of St. Barthélemy specimen.

St. Martin, Île de la Fourche, St. Barthélemy, records only); Marcuzzi and D'Aguilar 1971: 80 (in part, St. Martin, Île de la Fourche, St. Barthélemy, Anguilla records only); Iwan 2004: 740, figs. 189–190, 200–205; Peck 2011a: 33 (in part, Anguilla, St. Barthélemy, Île de

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

(in part, Anguilla, St. Barthélemy, Île de la Fourche, Tintamarre, St. Martin records only); Soldati and Touroult 2014: 99 (in part, Anguilla, St. Barthélemy, Île de la Fourche, St. Martin, Tintamarre 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), 2016: 160 (in part, Anguilla records only); Peck *et al.* 2014: 84 (in part, Anguilla records only).

Diastolinus clathratus; Marcuzzi 1957: 128 (in part, St. Martin records only), 1962: 27 (in part, St. Martin records only), 1977: 13 (in part, St. Martin records only), 1984: 77 (in part, St. Martin records only), 2001: 250 (in part, St. Martin records only); Marcuzzi and D'Aguilar 1971: 80 (in part, St. Martin records only); Soldati and Touroult 2014: 99 (in part, St. Martin records only).

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

Diastolinus sallei; Marcuzzi 1983: 246 (male genitalia, Anguilla), 1984: 78 (in part Anguilla records only); Peck 2011a: 33 (in part, Anguilla records only), 2016: 160 (in part, Anguilla? records only); Peck *et al.* 2014: 84 (in part, Anguilla records only); Soldati and Touroult 2014: 99 (in part, Anguilla? records only).

Diastolinus mulsanti; Marcuzzi 2001: 251 (in part, St. Martin records only); Soldati and Touroult 2014: 99 (in part, St. Martin records only).

Type Material. Holotype not examined (NHRS).

Other Material Examined. See Appendix 1.

Diagnosis. This species can be distinguished by the combination of the base of the pronotum subequal to the width across the humeri, matte dorsal surface, dorsal surface almost entirely lacking setae, 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, legs relatively robust, expanded metatarsus expanded, not gracile, and aedeagus terminating 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 3 antennomeres

mostly testaceous; surface matte; ovate-oblong; widest at middle, convex; body almost entirely lacking setae.

Head (Fig. 25) with epistoma evenly convex; punctures less than diameter of ommatidium, covering dorsal surface, separated by 2–3X puncture diameters basally and spaced less than 1X puncture diameter on the anterior margin. Labrum shallowly punctate, punctures less dense than on clypeus. Antenna 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 3/8, then sides gradually narrowed to base; basal width subequal to width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; minutely punctate, puncture diameter 1/2 that of punctures on head, spaced 3–5X diameters of punctures on pronotal disc. Hypomeron feebly rugulose, almost impunctate. Prosternal process tongue-like, shallowly punctate, rarely with pale, semi-erect setae 2X longer than 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; stria punctures deep, not confluent; intervals convex, punctation minute, even. Stria 7 ending in lateral stria slightly posterior to humeral angle.

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

Leg (Fig. 27) surfaces finely punctate. Profemur expanded. Protibia narrow, expanding gradually in distal 3/4; dorsolateral margin slightly arcuate; posteroventral surface with stout spines in apical 2/3; apex obliquely truncate, ringed by stout spines. Pro- and metatarsi 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 2/3 as long as metatibia, without setose pads; 1st tarsomere 1.5X length of 2nd.

Abdominal ventrites (Fig. 28) minutely, sparsely 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 striae sometimes follow; ventrite 5 flattened

medially, finely punctate, posterior margin evenly rounded. Aedeagus (Figs. 26, 29) with basal piece and parameres strongly arched, about 1/3 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 3.1–4.1 mm. Similar to male except body more robust and convex than male. Pro- 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 on dunes behind beaches. Specimens have been found at elevations ranging 0–61 m above sea level.

Distribution. Sombrero* (ANG, WIBF), Anguilla, Prickly Pear Cay* (ANG, NMNH), St. Martin, Tintamarre (STM), St. Barthélemy, Île de la Fourche (STB) (Fig. 106).

Discussion. 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 nudum* attributed to Gyllenhal placed in synonymy with Fabricius' (1792) valid name *Blaps 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) 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 (www2.nrm.se/en/col_p.html).

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), 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.

The history of this species after this early period is no less confused. Perhaps no species better represents the mess left behind by Marcuzzi than this one. As can be seen in the synonymical tables in this paper and Ivie and Hart (2016), Marcuzzi used this name apparently at random for any specimen he had at hand. The fact that the species is a single-bank endemic is totally contrary to the use of the name in the last 50 years.

***Diastolinus shieli* Hart and Ivie, new species**
(Figs. 20–23, 106)

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).

Etymology. This species is named for the noted West Indian-born science fiction novelist Matthew Phipps Shiel (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.

Diagnosis. This species can be distinguished from other species by the combination of the somewhat parallel-sided body, setose dorsal

surface, matte black elytra with non-confluent stria punctures, two or fewer punctures evident on the sutural stria, small gular horns, evenly rounded lateral edges of the pronotum with the widest point appearing anterior of the hind angles, and male genitalia with weakly sinuate parameres that are subparallel with a bluntly rounded apex. This species closely resembles *D. leewardensis*, but can be distinguished by the denser and longer setae and 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. 106) 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 shiny, ventral surface somewhat shiny; oblong, almost parallel-sided; widest at middle, moderately convex; with scattered yellowish setae.

Head (Fig. 20) with epistoma broadly, evenly convex; punctures equal to diameter of ommatidium, 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. Antenna clavate. Dorsal and ventral portions of eye subequal 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 1/2, then sides narrowing to base; basal width subequal to width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; densely punctate, puncture diameter subequal that of punctures on head, spaced 1–2X diameters of punctures on pronotal disc; yellowish setae typically 2–4X puncture diameter in length covering surface. Hypomeron rugulose, punctate shallowly. Prosternal process tongue-like, punctate.

Scutellum (Fig. 20) small, subtriangular, about 2X wider than long. Elytron slightly broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; stria punctures deep, closely spaced, never confluent; intervals convex, punctation minute, even. Stria 7 ending in lateral stria slightly posterior to humeral angle.

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

Leg (Fig. 20) surfaces densely setose and finely punctate. Protibia narrow, expanding gradually in

distal 2/3; dorsolateral margin nearly straight; posteroventral surface with small, stout spines in apical 2/3; 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 1/2 as long as metatibia, without setose pads; 1st tarsomere more than 2X length of 2nd.

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, longitudinally rugulose areas posterior of punctures; ventrite 3 flattened medially; ventrite 5 depressed medially, posterior margin evenly rounded. Aedeagus (Figs. 22, 23) with basal piece and parameres strongly arched, about 1/2 elytral length; parameres parallel in basal 2/3, narrowed in apical 1/3, 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. Pro- 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 213–274 m above sea level.

Distribution. Redonda* (NMNH, WIBF) (Fig. 106).

Discussion. The existence of this species is perhaps the most surprising finding of this study. Redonda is the apex of an extinct volcano between Nevis and Montserrat, rising steeply from the sea with no beach or landing. The entire island is cinder, with no sand areas like those where most *Diastolinus* are found. Redonda rises to a peak at 296 m and was never connected to any other island. The range of *D. leewardensis* surrounds it on three sides (Fig. 106) and appears to be the sister-species.

“Sellio” Species-Group

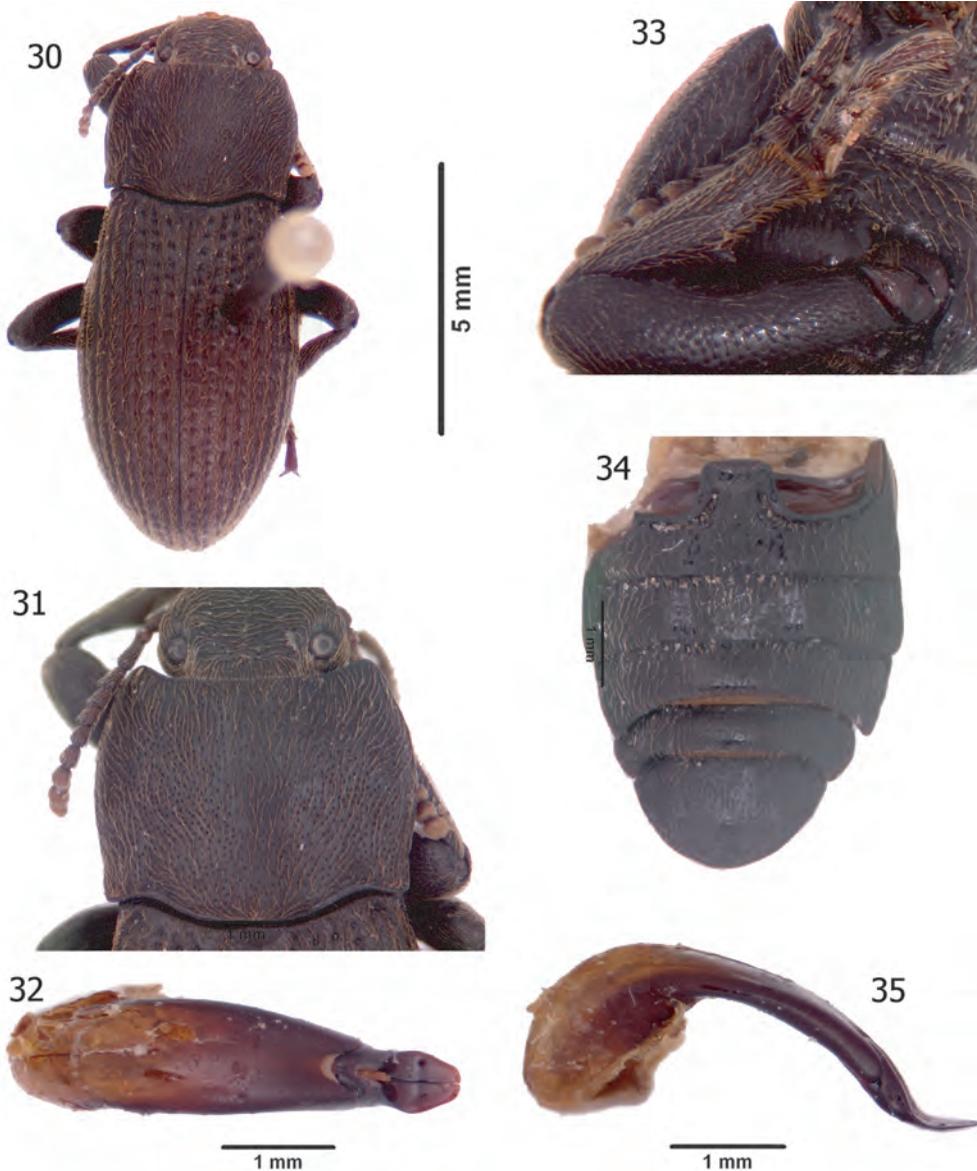
Diagnosis. This species-group can be distinguished by a combination of small to large size (6.1–10.6 mm in length); constricted anterior 1/3 of the elytra, anterior of the point where stria 8 joins the lateral stria, to narrower than the basal width of the pronotum (the elytra sometimes expand anteriorly from the constricted point to subequal 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 and clavate, especially in the male fore legs; and male protibia 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. 102–104).

***Diastolinus azuaensis* Hart and Ivie, new species**
(Figs. 30–35, 103)

Type Material. HOLOTYPE: Male. REP.DOM. Azua Prov. 18 km E. Azua; XII-28-1986; Doyen &



Figs. 30–35. *Diastolinus azuaensis*, holotype. 30) Dorsal habitus; 31) Pronotum; 32) Aedeagus, dorsal view; 33) Fore leg; 34) Abdominal ventrites; 35) Aedeagus, lateral view.

Santiago/ WIBF 035538 (from WIBF, deposited in NMNH).

Etymology. Named after the type locality, Azua Province.

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

Description. Male. Length 10.0 mm, width 4.1 mm. Body (Fig. 30) black, except distal 1/2 of antennomere 8 reddish, last 3 antennomeres fully reddish; somewhat shiny; convex, oblong; covered in long, yellow setae.

Head (Fig. 30) with epistoma evenly convex; punctures greater than diameter of ommatidium, covering dorsal surface, evenly spaced, separated by about 1 puncture diameter; setae 2–4X length of punctures. Labrum densely punctate, punctures subequal to punctures on head. Antenna 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 1/2, then sides gently rounded to base; base slightly wider than width across 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 subequal in diameter to punctures on head, closely spaced about equal to 1 puncture diameter on pronotal disc; long, yellow setae on pronotal disc, longer laterally, typically at least 4X longer than puncture diameter. Hypomeron rugulose, punctate shallowly, setae less dense than dorsal surface. Prosternal process tongue-like, short, not reaching mesoventrite, punctate, setose.

Scutellum (Fig. 31) short, crescent-shaped, about 2.5X as wide as long. Elytra constricted in anterior 1/3. Elytron gradually broadening from base to widest point, opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; stria punctures deep, not confluent; intervals convex, punctation minute; setae at least as long as 3X diameter of stria punctures. Stria 7 ending in lateral stria slightly posterior to humeral angle.

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

Leg surfaces densely setose and heavily punctate. Femora expanded. Protibia (Fig. 33) narrow, expanding gradually in distal 3/4; dorsolateral

margin somewhat arcuate; posteroventral surface with prominent spine at middle; apex obliquely truncate, ringed by stout spines. Pro- and mesotarsi with tarsomeres 1–3 expanded, ventrally with golden, densely setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Metatarsus narrow, about 2/3 as long as metatibia, without setose pads; 1st tarsomere more than 2X length of 2nd.

Abdomal ventrites (Fig. 34) with scattered, large punctures; 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 (Figs. 32, 35) with basal piece and parameres strongly arched, length about equal to 2/3 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* (WIBF, to be deposited in NMNH). Known only from a single specimen from Azua Province, Dominican Republic (Fig. 103).

***Diastolinus coarctatus* (Mulsant and Rey, 1859)**
(Figs. 36–40, 103)

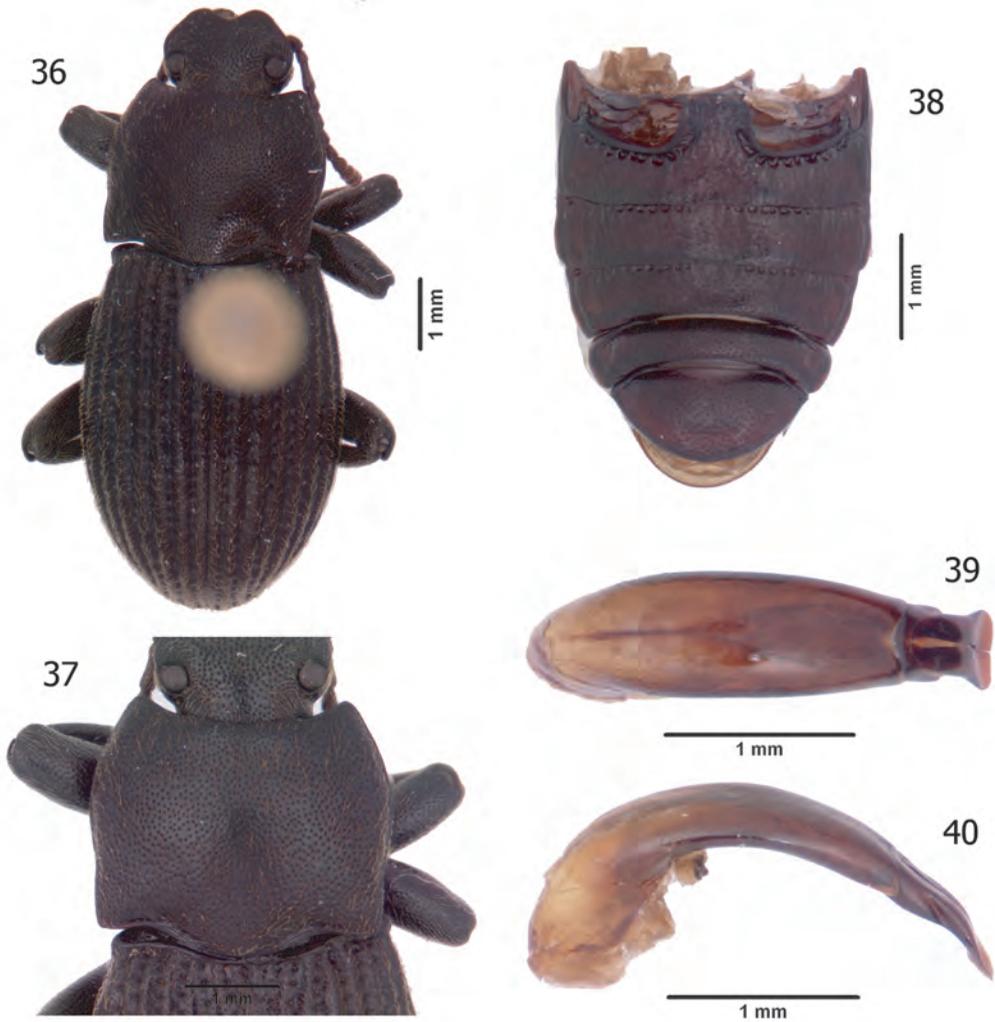
Sellio coarctatus Mulsant and Rey 1859: 106, 1860: 170 (type locality: Hispaniola); Leng and Mutchler 1914: 461 (Hispaniola); Gebien 1938: 407 [444] (Hispaniola); Marcuzzi 1957: 129 (Hispaniola), 1962: 31 (in part, Hispaniola records only), 1984: 82 (in part, Hispaniola records only); Garrido 2004b: 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) (*lapsus calami*).

Sellio tibidens; Perez 2008: 113 (Hispaniola).

Type Material. Types were not seen for *D. coarctatus*, though they are reported to be in the



Figs. 36–40. *Diastolinus coarctatus*. **36)** Dorsal habitus; **37)** Pronotum; **38)** Abdominal ventrites; **39)** Aedeagus, dorsal view; **40)** Aedeagus, lateral view.

Chevrolat collection, and the type locality is recorded as Saint-Domingue. They were not found in the BMNH (M. Barclay, *in litt.*), nor in the Mulsant and Rey collection in Lyon (H. Labrique, *in litt.*). They are possibly in the Oberthur collection in MNHN. The Garrido type for *D. estebani* is housed in MNHC and photographed in Garrido (2004a).

Other Material Examined. See Appendix 1.

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 subequal to the pronotal 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 3 antennomeres reddish testaceous, last antennomere almost golden; somewhat shiny convex, oblong; covered in relatively long, yellow setae.

Head (Fig. 36) with epistoma evenly convex; punctures greater than diameter of ommatidium, covering dorsal surface, evenly spaced, separated by less than 1 puncture diameter; setae 2X longer

than than puncture diameter. Labrum densely punctate, punctures smaller than punctures on head, separated by less than 1 puncture diameter. Antenna 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 1/2, then sides rounded to base; base slightly wider than width across 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, puncture diameter equal to punctures on head, closely spaced, often less than or equal to puncture diameter 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 1/3. Elytron gradually broadening from base to widest point, opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; stria punctures deep, sometimes confluent; intervals convex, punctation minute. Stria 7 ending in lateral stria slightly posterior to humeral angle.

Mesoventrite punctate, shiny. Metaventrite short, punctate on 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 1/3; apex obliquely truncate, ringed by stout spines. Pro- and mesotarsi 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 3/4 as long as metatibia, without setose pads; 1st tarsomere more than 1.5X length of 2nd.

Abdomal ventrites (Fig. 38) with large, scattered punctures; 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 (Figs. 39, 40) with basal piece and parameres strongly arched, equal to 1/2 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 pro- 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. 103).

Diastolinus desecheo Hart and Ivie, new species (Figs. 41–45, 98, 104)

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).

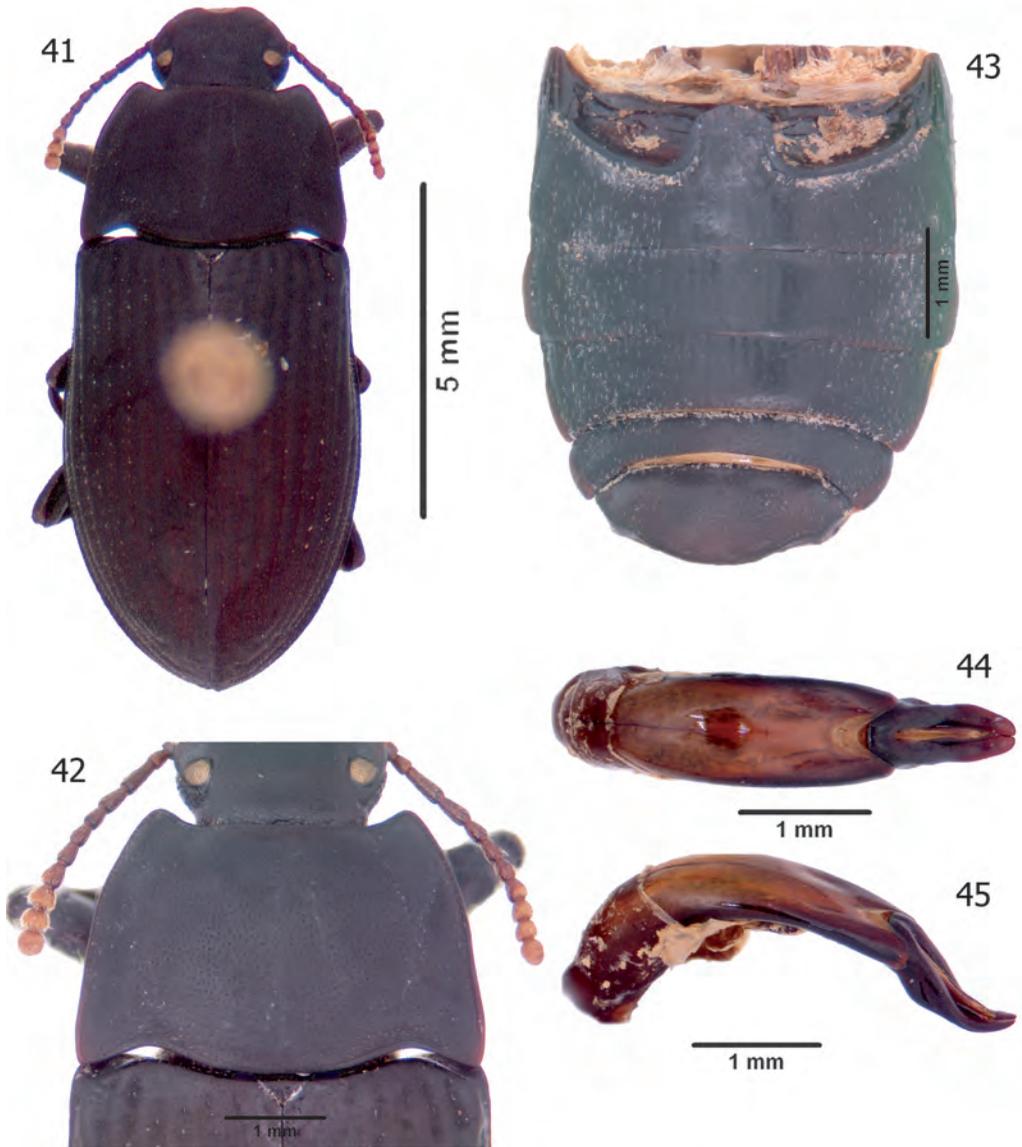
Other Material Examined. See Appendix 1.

Etymology. Named after the type locality, Desecheo Island.

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 punctation, 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. Antenna weakly clavate. Dorsal portion of eye perfectly rounded; ventral portion of eye ovate. Gular horns long, robust and very prominent (compare to Fig. 76).



Figs. 41–45. *Diastolinus desecheo*, paratype. 41) Dorsal habitus; 42) Pronotum; 43) Abdominal ventrites; 44) Aedeagus, dorsal view; 45) Aedeagus, lateral view.

Pronotum (Fig. 42) widened posteriorly; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior 1/2, then sides nearly parallel to base; basal width equal to humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded (Fig. 98); 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 1/3. 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 on 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 3/4 as long as metatibia, without setose pads; first tarsomere 2.5X length of second.

Abdominal ventrites (Fig. 43) finely punctate, with 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, longitudinally rugulose areas posterior of punctures; ventrite 2-3 with row of shallow punctures on anterior edge, absent medially, longitudinally rugulose areas posterior of punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Figs. 44, 45) with basal piece and parameres strongly arched, about equal to 4/7 elytral length; parameres nearly parallel basally, then slightly expanding, then subparallel 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 pro- and mesotarsi not expanded. Abdominal ventrites 1-3 slightly convex medially; ventrite 5 slightly convex.

Biology. Unknown.

Distribution. Desecheo Island* (PR, OSUC, WIBF).

Diastolinus doyen Hart and Ivie, new species

(Figs. 46-50, 104)

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, EMEC). PR: Bosque at Playa; de Dorado, Dorado; XII-25-1986 Doyen; & Santiago (1 male and 1 female, WIBF 035404 - 035405).

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

Diagnosis. This species can be distinguished from most other Puerto Rican species by the combination of the small, narrow body, nearly gla-

brous abdominal ventrites, short gular horn, presence of very few short setae on the upper surface, and width across 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 3 antennomeres testaceous, labrum reddish; upper surface somewhat shiny; narrow, elongate; widest on pronotum; moderately convex; scattered, yellow setae typically short.

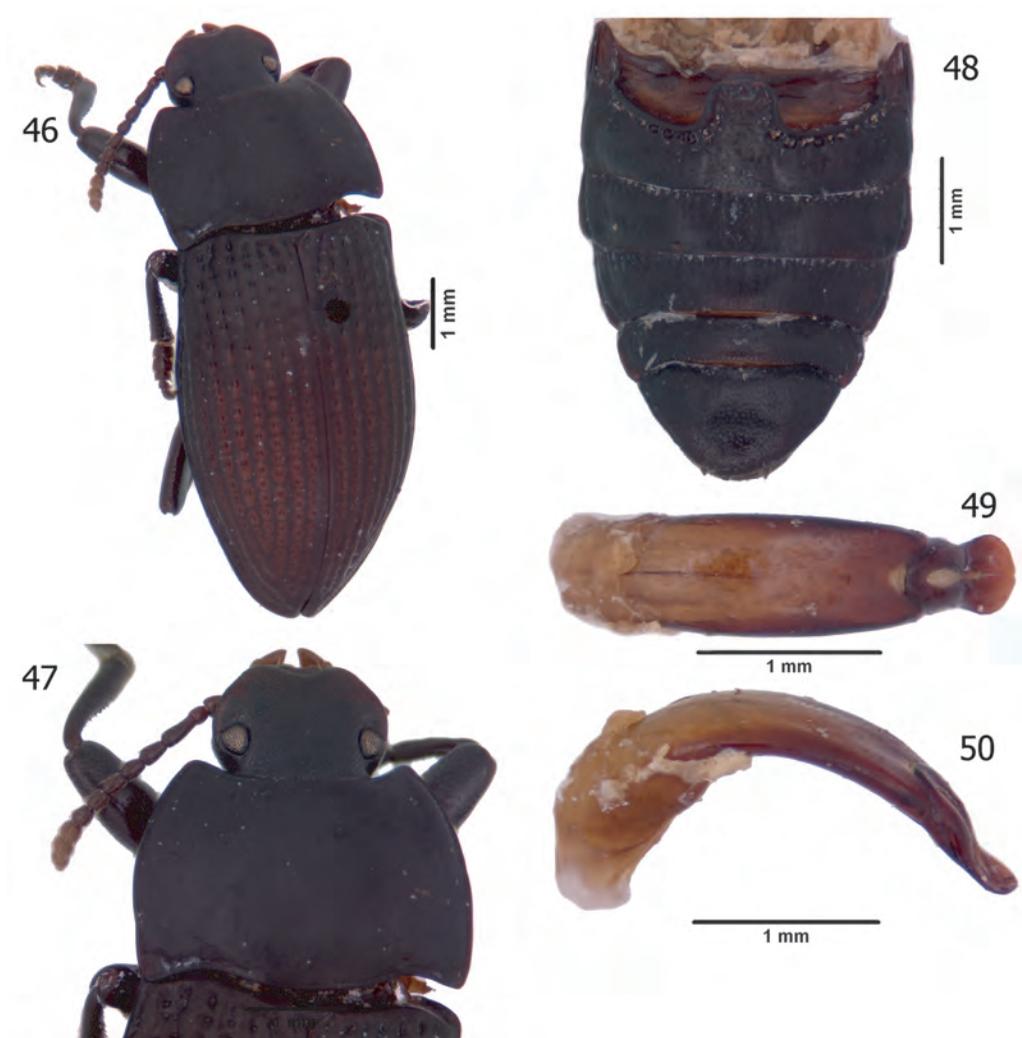
Head (Fig. 47) transverse, somewhat flattened; punctures subequal in diameter to ommatidium, covering dorsal surface, evenly spaced, separated by more than 1X puncture diameter posteriorly, spaced more closely anteriorly. Labrum densely, shallowly punctate, punctures equal in size to punctures on head, closely spaced. Antenna 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 1/2, then sides rounded to base; basal width equal to width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; finely punctate, puncture diameter subequal to punctures on head, spaced 2-5X diameters of punctures on pronotal disc; setae typically absent on disc, minute setae visible laterally, 1-2X puncture diameters 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 1/3. Elytron gradually broadening from base to widest point opposite the posterior border of abdominal ventrite 1, then gently arcuate to apices; striae impressed; medial striae less costate than lateral striae; stria punctures deep, sometimes confluent posteriorly; intervals broadly convex, punctation minute. Stria 7 ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite very short, punctate on 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 1/3; 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, subequal in length to metatibia, without setose pads; 1st tarsomere 2X length of 2nd.



Figs. 46–50. *Diastolinus doyenii*, holotype. **46)** Dorsal habitus; **47)** Pronotum; **48)** Abdominal ventrites; **49)** Aedeagus, dorsal view; **50)** Aedeagus, lateral view.

Abdominal ventrites (Fig. 48) 1–3 almost glabrous laterally, except punctuation 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 (Figs. 49, 50) with basal piece and parameres strongly arched, about equal to 1/2 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.

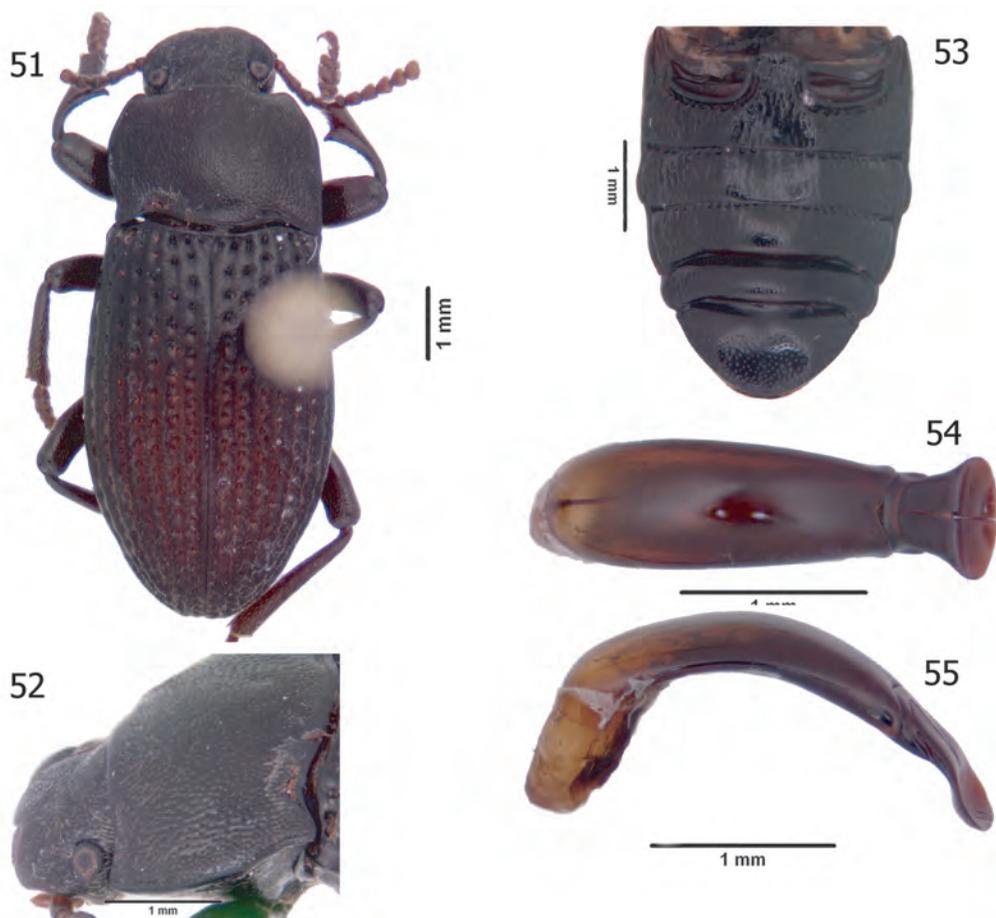
Female. Length 7.8–8.3 mm, width 3.3–3.7 mm. Similar to male except pro- and mesotarsi not expanded. Abdominal ventrites 1–3 slightly convex medially; ventrite 5 slightly convex.

Biology. Some specimens were associated with scrub forest.

Distribution. Puerto Rico* (AMNH, WIBF) (Fig. 104).

Diastolinus espoloni Garrido, 2007
(Figs. 51–55, 103)

Diastolinus espoloni Garrido 2007: 46 (type locality: Hispaniola); Caballer *et al.* 2012: 65 (Hispaniola).



Figs. 51–55. *Diastolinus espoloni*. 51) Dorsal habitus; 52) Pronotum; 53) Abdominal ventrites; 54) Aedeagus, dorsal view; 55) Aedeagus, lateral view.

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 (1962) statement 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. The types in EPRL, from Carretera de Duverje a Jimani, km 6-7, Pedernales Province, were not seen.

Other Material Examined. See Appendix 1.

Diagnosis. This species is most easily distinguished by the subrugose punctures antero-

laterally on the pronotal disc (Fig. 52) and 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 more testaceous; somewhat shiny; oblong, moderately convex; scattered, white to golden setae typically short.

Head (Fig. 51) transverse, somewhat flattened; punctures greater than diameter of ommatidium, covering dorsal surface, evenly spaced, separated by 1 puncture diameter posteriorly, separated by less than 1 puncture diameter anteriorly; setae approximately length of posterior punctures, scattered over surface. Labrum densely punctate, punctuation confluent, generally smaller than punctures on head, separated by less than 1 puncture

diameter. Antenna 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 2/5, then sides nearly parallel to base; basal width subequal to width across 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 on pronotal disc; punctures (Fig. 52) denser and subrugose antero-laterally, sparse, short, yellow setae present throughout. Hypomerone feebly rugulose, punctate shallowly and sparsely. Prosternal process lanceolate, long, almost reaching mesoventrite, punctate and setose.

Scutellum (Fig. 51) small, subtriangular, almost 3X as wide as long. Elytra constricted in anterior 1/3. Elytron gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae heavily impressed; stria punctures deep and not confluent; intervals convex, punctation minute, even. Stria 7 ending in lateral stria posterior to humeral angle.

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

Leg surfaces setose and finely punctate. Femora expanded. Protibia narrow basally, then suddenly expanded midway into large, triangular spine on posteroventral 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 3/4 as long as metatibia, without setose pads; 1st tarsomere about 1.5X length of 2nd.

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 (Figs. 54, 55) with basal piece and parameres strongly arched, about 1/2 elytral length; parameres widening gradually in basal 2/3, 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 pro- 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 of 120–395 m.

Distribution. Hispaniola (Fig. 103).

Diastolinus gladiator (Garrido, 2004)

(Figs. 56–60, 103)

Sellio gladiator Garrido 2004b: 120 (type locality: Hispaniola); Perez 2008: 113 (Hispaniola); Herrera-Uria *et al.* 2015: 97 (Hispaniola); *Selio gladiator* Garrido 2004b: 121 (*lapsus calami*); Caballer *et al.* 2012: 65 (Cuba [error]).

Type Material. The types were not seen. The holotype is from Cabo Rojo, Pedernales Province, Dominican Republic (MNHC).

Other Material Examined. Appendix 1.

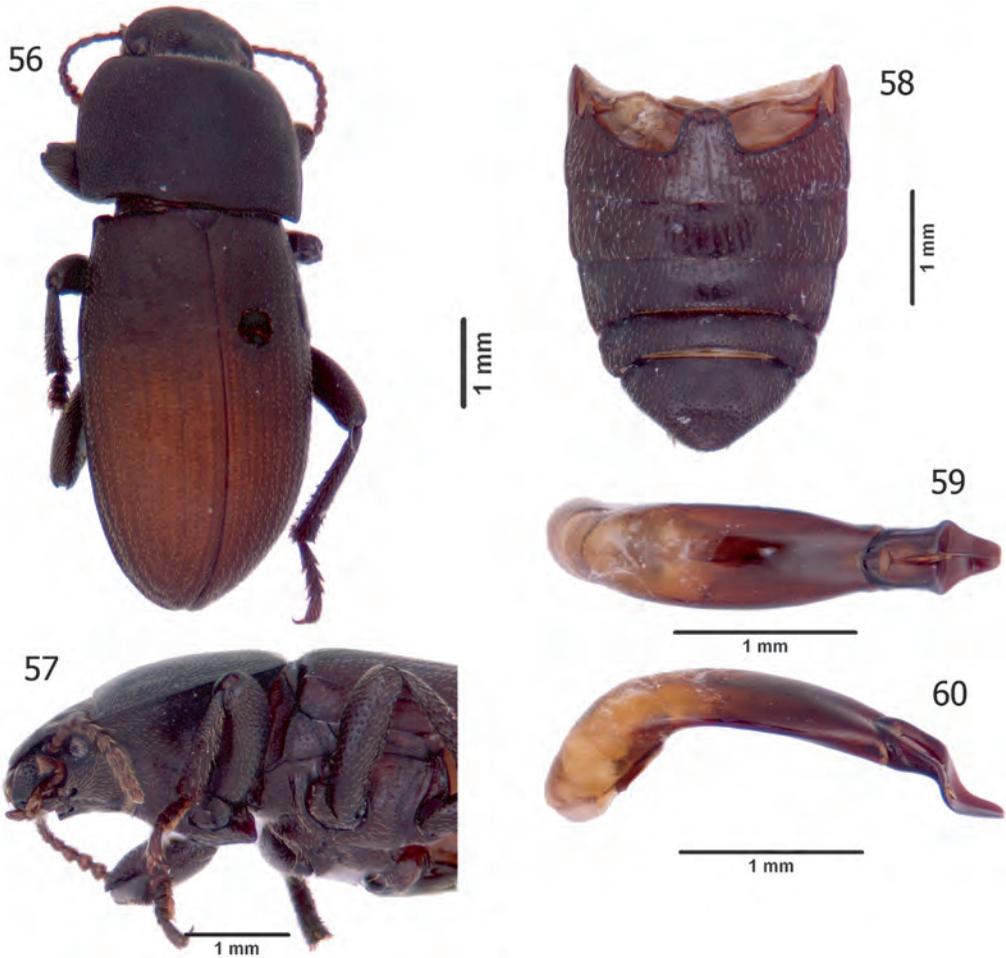
Diagnosis. This species can be distinguished from other species by the dull upper surface with short, yellowish pubescence and elytra not distinctly costate.

Redescription. Male. Length 6.1–7.1 mm, width 2.8–3.1 mm. Body (Fig. 56) dull, matte black, except antennae reddish, last 3 antennomeres mostly testaceous; ovate-oblong; widest at pronotum, convex; scattered pale setae covering dorsal surface.

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

Pronotum (Fig. 56) widest in anterior 1/3; apical margin evenly, broadly emarginate; apex width subequal to basal width; apical corners rounded, lateral margin widened from apex in anterior 1/3, then sides arcuate, slightly narrowing towards base; basal width greater than width across humeri; basal margin feebly bisinuate; dorsal surface convex; all margins narrowly beaded, except obsolete at middle of anterior margin; minutely punctate, puncture diameter subequal to that of punctures on head, spaced 2–3X diameter of punctures on pronotal disc; setae typically rubbed off pronotal disc, fine, pale setae typically 2X puncture diameter in length laterally. Hypomerone feebly rugulose, almost impunctate. Prosternal process lanceolate, punctate, with yellowish, semi-erect setae at least 2X puncture diameter.

Scutellum (Fig. 56) small, triangular, slightly wider than long. Elytra constricted in anterior 1/3.



Figs. 56–60. *Diastolinus gladiator*. 56) Dorsal habitus; 57) Ventrolateral habitus; 58) Abdominal ventrites; 59) Aedeagus, dorsal view; 60) Aedeagus, lateral view.

Elytron broadening from base to widest point opposite metaventrite, then evenly arcuate to apices; striae not impressed; stria punctures shallow; intervals flat, punctuation even, equal to stria punctation. Stria 7 ending in lateral stria slightly posterior to humeral angle.

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

Leg (Fig. 57) surfaces setose and somewhat heavily punctate. Femora expanded. Protibia narrow, expanding greatly in distal 2/3; dorsolateral margin nearly straight, row of stout spines in apical 2/3; posteroventral surface asperous; 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 1/2 as long as metatibia, without setose pads; 1st tarsomere length subequal to length of 2nd.

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 longitudinally rugulose areas, indistinct on medial concavity; ventrite 5 concave medially just before posterior margin. Aedeagus (Figs. 59, 60) with basal piece and parameres arched, less than 1/2 elytral length; parameres parallel for basal 1/2, 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. Pro- 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 to lights. Two specimens were intercepted in an orchid shipment to Miami. Specimens have been found at elevations ranging 0–45 m above sea level.

Distribution. Hispaniola (Fig. 103).

***Diastolinus tibidens* (Quensel, 1806)**

(Figs. 61–67, 104)

Blaps tibidens Quensel 1806: 147 (type locality: Virgin Islands).

Sellio tibidens; 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).

Sellio tibiensis; Iwan 2004: 741, 749 (*lapsus calami*).

Type Material. The holotype (NHRS-JLKB000041162) is mistakenly labeled “Africa,” here corrected to St. Thomas (Figs. 61, 62). The specimen was photographed by Johannes Bergsten, NHRS, and the image was made available by NHRS under Creative Commons Attribution 4.0 International Public License (CC-BY 4.0).

Other Material Examined. See Appendix 1.

Diagnosis. This species can be distinguished from other species by the combination of the base of the elytra, including humeri, much narrower than pronotum, elytra costate with large striae punctation, scutellum large, distinct, and triangular, and body less than 7.5 mm in length. Males of this species are the only ones in the genus in which 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 morphological difference between island populations.

Redescription. Male. Length 6.3–7.3 mm, width 2.4–3.0 mm. Body (Fig. 63) black, except last 3 antennomeres testaceous; somewhat dull on upper surface, somewhat shiny on ventral surface; oblong; widest on pronotum, moderately convex; scattered white to golden setae typically short.

Head (Figs. 61, 63) with epistoma evenly convex; punctures greater than diameter of ommatidium, covering dorsal surface, evenly spaced, separated by 1 puncture diameter posteriorly, separated by less than 1 puncture diameter anteriorly; setae 2–3X length of puncture diameters. Labrum densely punctate. Antenna clavate. Dorsal and ventral portions of eye roughly equal in size and shape. Gular horns short.

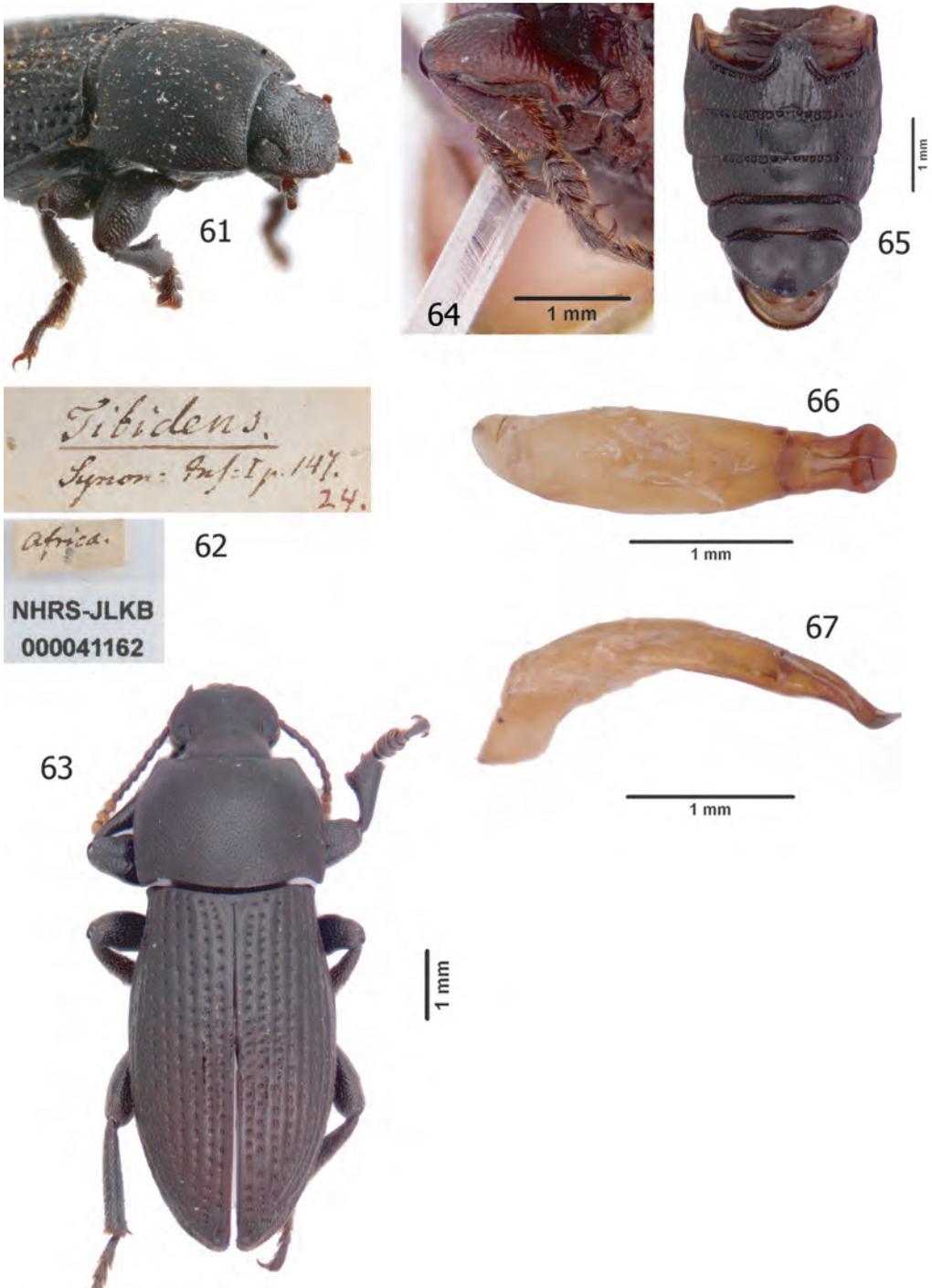
Pronotum (Fig. 63) widest at anterior 1/3; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex in anterior 1/3, then sides narrowing slightly to base; base wider than width across humeri; basal margin bisinuate; dorsal surface broadly, evenly convex; all margins narrowly beaded, except obsolete at middle of anterior margin; punctate, puncture diameter equal to puncture diameters on head, spaced 2–3X puncture diameter pronotal disc; setae 4X puncture diameter in length. Hypomeron feebly rugulose, shallowly and sparsely punctate. Prosternal process somewhat convex, tongue-like, punctate.

Scutellum (Fig. 63) triangular, about 2X wider than long. Elytra constricted in anterior 1/3. Elytron gradually broadening from base to widest point opposite abdominal ventrite 2, then evenly arcuate to apices; striae heavily impressed; striae punctures deep and not confluent; intervals convex, punctation minute, even. Stria 7 ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventricle short, punctate on 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 2/3 as long as metatibia, without setose pads; 1st tarsomere more than 2X length of 2nd.

Abdominal ventrites (Fig. 65) shallowly punctate; ventrites 1–2 slightly concave medially;



Figs. 61–67. *Diastolinus tibidens*, holotype. **61)** Head and pronotum (Photograph by Johannes Bergsten, NHRS; made available by NHRS under Creative Commons Attribution 4.0 International Public License CC-BY 4.0); **62)** Labels; **63)** Dorsal habitus; **64)** Fore leg; **65)** Abdominal ventrites; **66)** Aedeagus, dorsal view; **67)** Aedeagus, lateral view.

anterior border of ventrite 1, just behind hind coxae, with row of heavy punctures extending onto intercoxal process, longitudinally rugulose areas posterior of punctures; ventrites 2–4 with row of heavy punctures on anterior edge, longitudinally rugulose areas posterior of punctures; ventrite 5 flattened medially, posterior margin evenly rounded. Aedeagus (Figs. 66, 67) with basal piece and parameres strongly arched, more than 2/3 elytral length; parameres subparallel for basal 1/2, 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 pro- 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 in FIT and Berlese samples. Specimens have been found at elevations ranging 0–104 m above sea level.

Distribution. Puerto Rico, Culebra* (AMNH), St. Thomas, St. John* (WIBF), Jost van Dyke (WIBF), Tortola* (WIBF), Guana (TOR), Prickly Pear Is.* (VG, BMNH, WIBF), St. Croix* (AMNH, WIBF), Buck Is.* (STX, WIBF) (Fig. 104).

***Diastolinus vaderi* Hart and Ivie, new species**
(Figs. 68–72, 103)

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).

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.

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

Description. Male. 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, shiny, glossy; lacking setae.

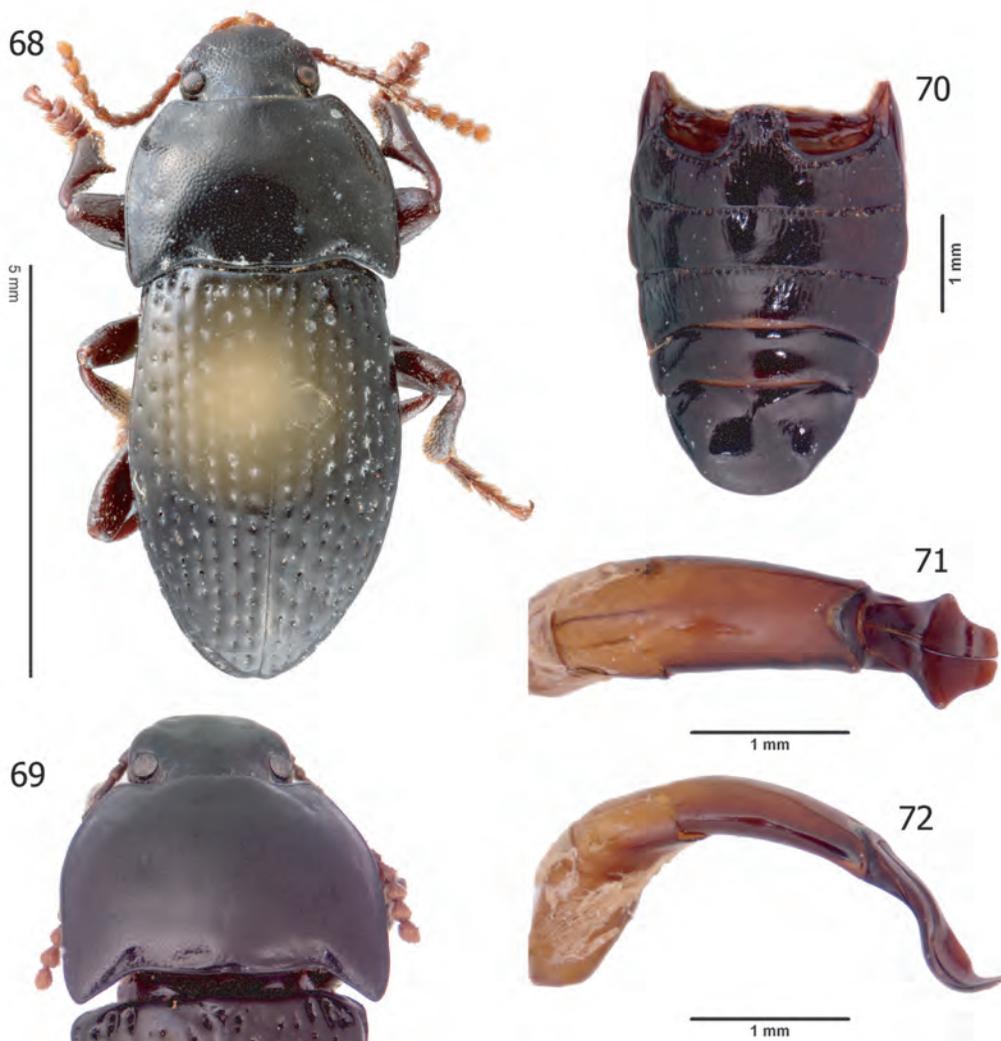
Head (Fig. 69) with epistoma evenly convex; punctures less than diameter of ommatidium, covering dorsal surface, separated by at least 2–3X puncture diameter posteriorly, spaced more closely anteriorly; setae almost entirely absent, at most a few yellow, short setae laterally. Labrum with some confluent punctation antero-laterally, medial area with fine, rugulose, almost impunctate surface. Antenna weakly clavate. Dorsal and ventral portions of eye roughly equal in size and shape, separated by canthus less than 1/4 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 2/5, then sides nearly parallel to base; basal width greater than width across 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 puncture diameter on pronotal disc. Hypomeron feebly rugulose, punctate shallowly and sparsely. Prosternal process lanceolate, punctate and setose.

Scutellum (Fig. 69) triangular, 2X as wide as long. Elytra (Fig. 68) constricted in anterior 1/3. 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. Stria 7 ending in lateral stria just posterior to humeral angle. Punctation on stria 8 almost absent in anterior 1/3.

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

Leg surfaces shiny, finely punctate. Femora expanded; profemora especially inflated, with an arcuate anterodorsal margin. Protibia narrow



Figs. 68–72. *Diastolinus vaderi*. **68)** Paratype, dorsal habitus; Holotype: **69)** Pronotum; **70)** Abdominal ventrites; **71)** Aedeagus, dorsal view; **72)** Aedeagus, lateral view.

basally, then suddenly expanded midway into large, triangular spine on posterventral surface, slightly narrowed 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 2/3 as long as metatibia, without setose pads; 1st tarsomere 2X length of 2nd.

Abdominal ventrites (Fig. 70) finely punctate, sparsely setose; ventrites 1–4 with longitudinally 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 (Figs. 71, 72) with basal piece and parameres strongly arched, at least 2/3 elytra length; parameres gradually expanding distally in basal 1/2, 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, pro- and mesotarsi with tarsomere 4 subequal 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 of 1,880–2,150 m, which are high elevations compared to those for most *Diastolinus* species that are found at or only slightly above sea level.

Distribution. Hispaniola* (FSCA, OSUC, WIBF) (Fig. 103).

Diastolinus victori Garrido, 2002

(Figs. 73–79, 104)

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

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*).

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. See Appendix 1.

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 punctation, punctation on abdominal ventrites 2 and 3 larger and deeper, and male genitalia different in form.

Redescription. Male. Length 9.3–10.2 mm, width 3.8–4.2 mm. Body (Fig. 73) black, except last 3 antennomeres testaceous; upper surface dull; elongate; widest across pronotum; moderately convex; scattered, yellow setae typically short.

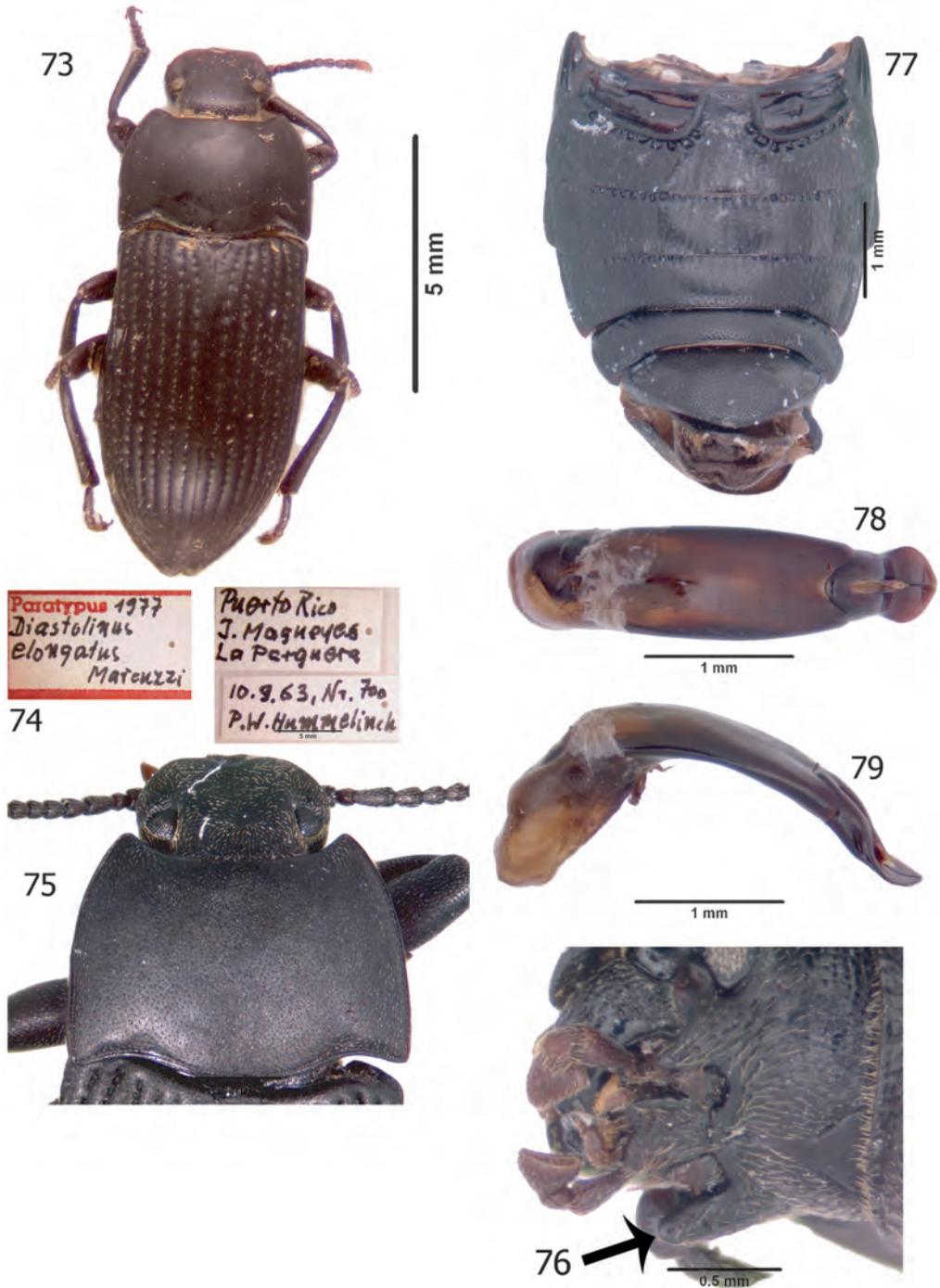
Head (Fig. 75) widely transverse, somewhat flattened; punctures subequal in diameter to ommatidium, covering dorsal surface, evenly spaced, separated by more than 1X puncture diameter posteriorly, spaced more closely anteriorly; setae 2X longer than puncture diameter, at least laterally. Labrum densely punctate, punctures equal in size to punctures on head, closely spaced. Antenna 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 1/2, then sides nearly parallel to base; basal width equal to width across 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 punctures diameter on pronotal disc; setae sometimes abraded 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 1/3. Elytron gradually broadening from base to widest point opposite abdominal ventrite 1, then evenly arcuate to apices; striae impressed; stria punctures deep and not confluent; intervals broadly convex, punctation minute anteriorly, fading posteriorly. Stria 7 ending in lateral stria posterior to humeral angle.

Mesoventrite somewhat rugulose. Metaventrite very short, punctate on 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 1/3; apex obliquely truncate, ringed by stout spines. Pro- and mesotarsi with tarsomeres 1–3 expanded, ventrally with golden, densely



Figs. 73–79. *Diastolinus victori*. 73) Paratype, dorsal habitus; 74) Paratype, labels; 75) Pronotum; 76) Gular horn; 77) Abdominal ventrites; 78) Aedeagus, dorsal view; 79) Aedeagus, lateral view.

setose pads, tarsomere 2 widest, more than 2X width of tarsomere 4. Metatarsus narrow, about 3/4 as long as metatibia, without setose pads; 1st tarsomere 2.5X length of 2nd.

Abdominal 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, longitudinally rugulose areas posterior of punctures; ventrites 2–3 with row of heavy punctures on anterior edge, longitudinally rugulose areas posterior of punctures; ventrite 5 concave medially, posterior margin evenly rounded. Aedeagus (Figs. 78, 79) with basal piece and parameres strongly arched, about equal to 2/3 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 pro- 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. Mona, Puerto Rico, Isla Magueyes (PR), Isla Cueva (PR), Caja de Muertos (PR) (Fig. 104).

“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 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 Windward Islands of the Lesser Antilles from Martinique south to Grenada (Fig. 102).

Diastolinus hoppae Hart and Ivie, new species (Figs. 80–85, 106)

Ctesicles insularis; Marcuzzi 1977: 25 (in part, Martinique records only), 1984: 79 (in part, Martinique records only), 2001: 251 (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); Soldati and Touroult 2014: 99 (in part, Martinique records only).

Comments. 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 (MSNG). 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 early Martinique records are errors. Although this record seems to belong here, the Îlet Hardy material is not included in the type series. In 2001, Marcuzzi recorded *C. insularis* from mainland Martinique, but we have seen no vouchers for that record. We include it here provisionally.

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

Blapstinus undescribed species Peck 2016: 159.

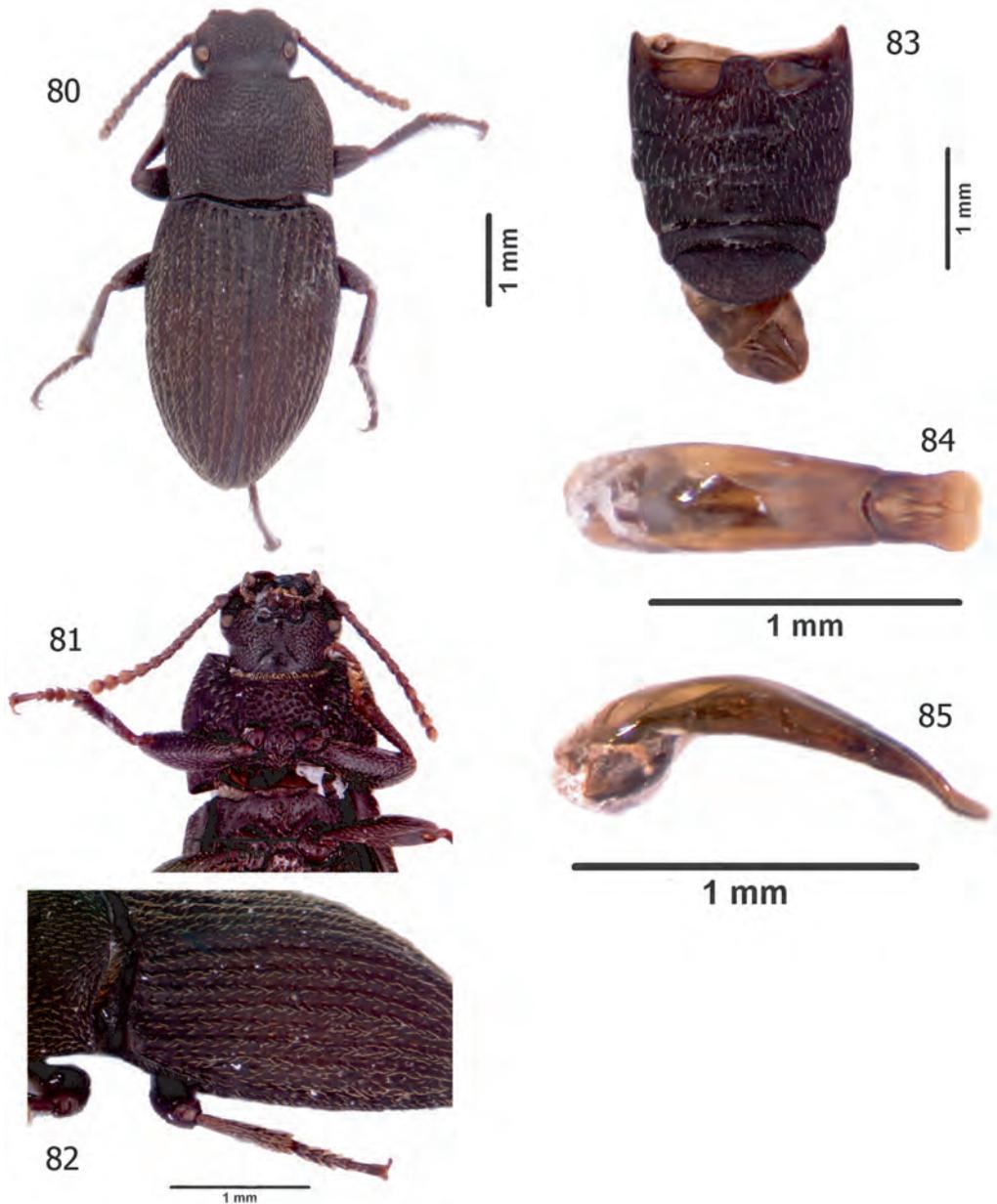
Type Material. HOLOTYPE: Male. ST. LUCIA: Louvet Beach; 13.9608°N, 60.8786°W; 05 JULY 2009; K.J. Hopp/ WIBF 035596 (from WIBF, deposited in NMNH). PARATYPES (92 specimens): 30 females and 23 males with the same label data as the holotype (WIBF 035597-035643, WIBF 035451, WIBF 034911-034915). ST. LUCIA; Edmunds For. Res. 521m; 13.84007°N, 60.99821°W; 06 MAY 2009, brlse strmltr; 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 Examined. See Appendix 1.

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 Tenebrionidae in her revision of *Nesocyrtosoma* Marcuzzi (Hopp and Ivie 2009).

Diagnosis. This species can be distinguished by its small size (6.5 mm or less), large punctures covering the entire body surface, upper surface covered with yellow pubescence, and relatively shallow striae punctation that rarely interrupts or overflows onto the interstriae.

Description. Male. Length 4.8–6.0 mm, width 1.9–2.3 mm. Body (Fig. 80) black, except antennae pitchy red, last 3–4 antennomeres testaceous,



Figs. 80–85. *Diastolinus hoppae*, paratype. 80) Dorsal habitus; 81) Head and thorax, ventral view; 82) Humeral angle, lateral view; 83) Abdominal ventrites; 84) Aedeagus, dorsal view; 85) Aedeagus, lateral view.

sometimes tarsi reddish; upper surface dull, venter weakly shiny; ovate-oblong; moderately convex; scattered, yellow setae covering body.

Head (Fig. 80) with epistoma flattened; punctures greater than diameter of ommatidium, covering dorsal surface, spaced less than 1X puncture diameter; setae 1.5–2.0X length of puncture

diameters. Labrum densely punctate, punctation smaller than that on frons. Antenna clavate. Dorsal and ventral portions of eye somewhat oblong-ovate, roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 80) widest at anterior 1/3, anterior width equal to basal width; apical margin

evenly, shallowly emarginate; apical corners rounded, lateral margin widened from apex to anterior 1/3, then sides gradually narrowed to base; basal width narrower than width across 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 puncture diameter 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; stria punctures somewhat shallow, not confluent; intervals broadly convex, punctation minute. Stria 7 ending in lateral stria at humeral angle.

Mesoventrite punctate. Metaventrite short, punctate on 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 2/3; 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, subequal in length to metatibia, without setose pads; 1st tarsomere 2X length of 2nd.

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 (Figs. 84, 85) with basal piece and parameres arched, about 1/2 elytral length; parameres parallel in basal 1/2, 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. Pro- 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, MSNG) (Fig. 106).

Diastolinus insularis (Champion, 1896)

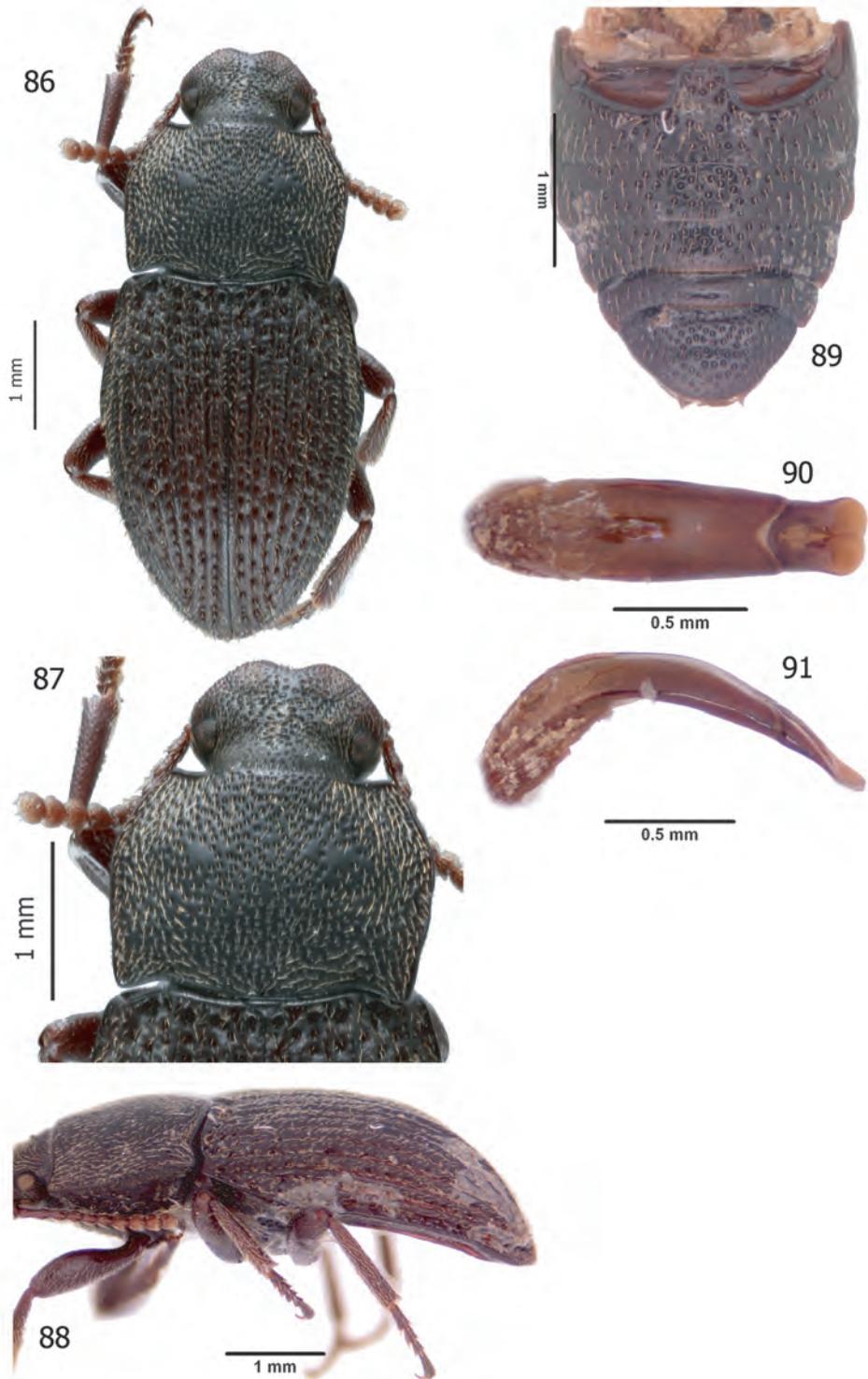
(Figs. 86–91, 106)

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), 2001: 251 (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); Soldati and Touroult 2014: 99 (in part, St. Vincent records only).

Type Material. Champion did not designate a type. Among the syntypes, the first of these listed is hereby designated the **lectotype**, the remainders as **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), large punctures covering the entire body surface, upper surface covered with yellow pubescence, deeply impressed stria punctation with punctures commonly interrupting and overflowing onto the interstriae, shiny, narrow elytral intervals, and 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 pitchy red, last 3–4 antennomeres testaceous, sometimes tarsi reddish; upper surface dull, except elytral intervals somewhat shiny, venter shiny; ovate-oblong; moderately convex; scattered, yellow setae covering body.



Figs. 86–91. *Diastolinus insularis*, lectotype. **86)** Dorsal habitus; **87)** Pronotum; **88)** Lateral habitus; **89)** Abdominal ventrites; **90)** Aedeagus, dorsal view; **91)** Aedeagus, lateral view.

Head (Figs. 86, 87) with epistoma flattened; punctures greater than diameter of ommatidium, covering dorsal surface, spaced less than 1X puncture diameter; setae 1.5–2.0X length of punctures. Labrum densely punctate, punctation smaller than that on frons. Antenna clavate. Dorsal and ventral portions of eye somewhat oblong-ovate, roughly equal in size and shape. Gular horns short, not prominent.

Pronotum (Fig. 87) widest at anterior 1/3, anterior width equal to basal width; apical margin evenly, broadly emarginate; apical corners rounded, lateral margin widened from apex to anterior 1/3, then sides gradually narrowed to base; basal width narrower than width across 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 puncture diameter 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; stria punctures deep, often confluent, interrupting interstitial line; intervals narrowly convex, punctation minute. Stria 7 ending in lateral stria at humeral angle.

Mesoventrite punctate. Metaventrite short, punctate on 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 on apical 2/3; 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, subequal in length to metatibia, without setose pads; 1st tarsomere more than 1.5X length of 2nd.

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 (Figs. 90, 91) with basal piece and parameres arched, about 1/2 elytral length; parameres parallel in basal 1/2, 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. Pro- 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 seashore.

Distribution. St. Vincent (Fig. 106).

Diastolinus maritimus (Champion, 1896)

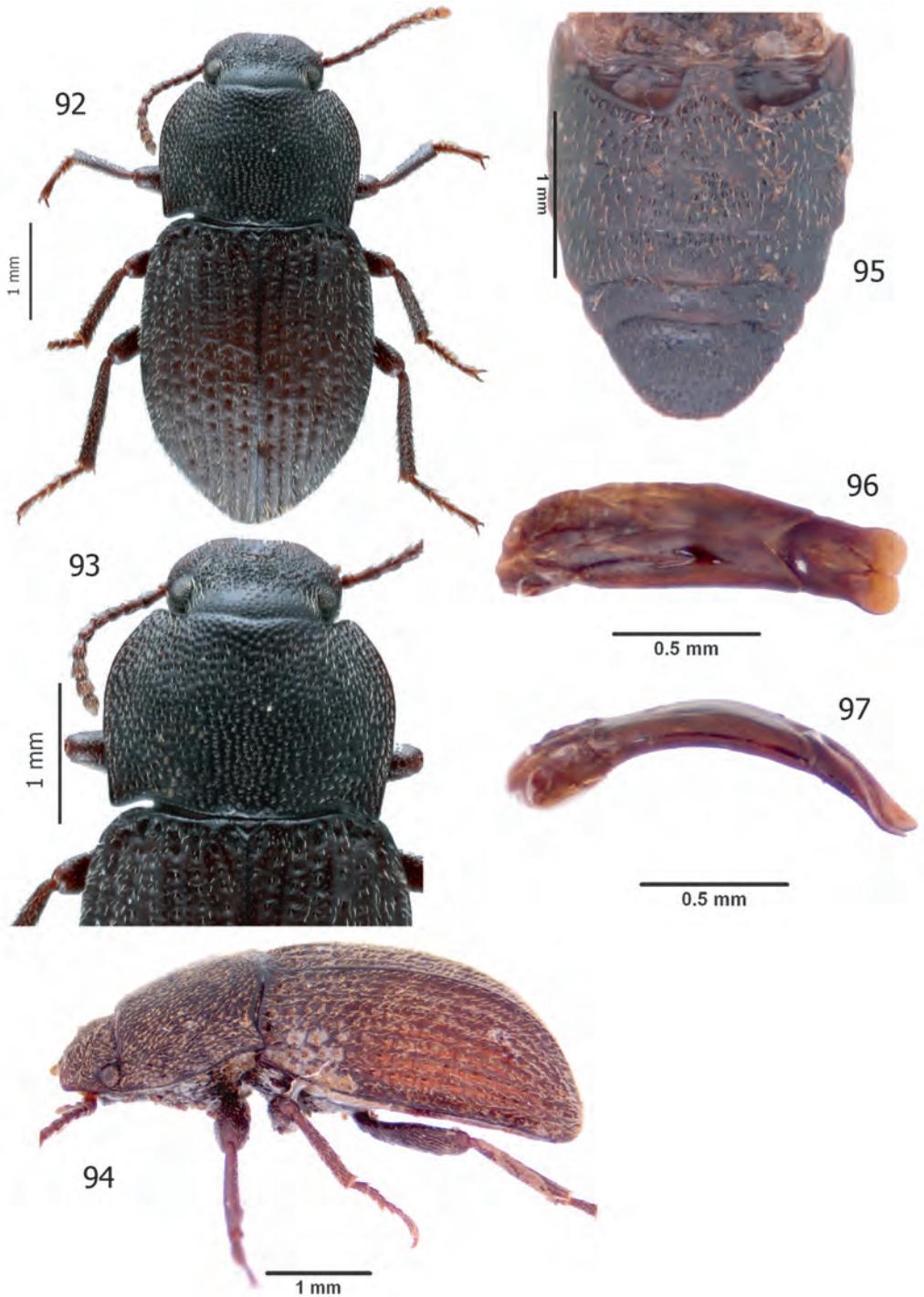
(Figs. 92–97, 106)

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. Among the syntypes, the first of these listed is hereby designated the **lectotype**, the remainders as **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), large punctures covering the entire body surface, upper surface covered with yellow pubescence, deeply impressed



Figs. 92–97. *Diastolinus maritimus*. Lectotype: **92)** Dorsal habitus; **93)** Pronotum. Paralectotype: **94)** Lateral habitus; **95)** Abdominal ventrites; **96)** Aedeagus, dorsal view; **97)** Aedeagus, lateral view.

strial punctation with punctures commonly interrupting and overflowing onto the interstriae, dull, broad elytral intervals, and 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 pitchy red, last 3–4 antennomeres testaceous, sometimes tarsi reddish; upper surface dull, venter weakly shiny; ovate-oblong; moderately convex; scattered, yellow setae covering body.

Head (Fig. 93) with epistoma flattened; punctures greater than diameter of ommatidium, covering dorsal surface, spaced less than 1X puncture diameter; setae 1.5–2.0X length of punctures. Labrum densely punctate, punctation smaller than that on frons. Antenna clavate. Dorsal and ventral portions of eye somewhat 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 width across 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 puncture diameter 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 interstitial line; intervals broadly convex, punctation minute. Stria 7 ending in lateral stria at humeral angle.

Mesoventrite punctate. Metaventricle short, punctate on 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 2/3; 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 3/4 length of metatibia, without setose pads; 1st tarsomere more than 2X length of 2nd.

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 (Figs. 96, 97) with basal piece and parameres arched, about 1/2 elytral length; parameres parallel in basal 1/2, 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. Pro- and mesotarsi not expanded. Abdominal ventrites 1–3 slightly convex medially; ventrite 5 slightly convex.

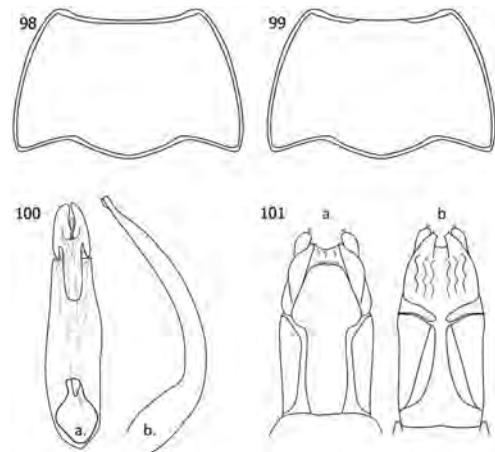
Biology. Unknown.

Distribution. Mustique, Grenada (Fig. 106).

Species and Records *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).



Figs. 98–101. *Diastolinus* species. **98)** *D. desecheo*, pronotal bead; *D. clavatus*: **99)** Pronotal bead; **100)** Aedeagus - a) Ventral view, b) Lateral view; **101)** Ovipositor - a) Dorsal view, b) Ventral view.

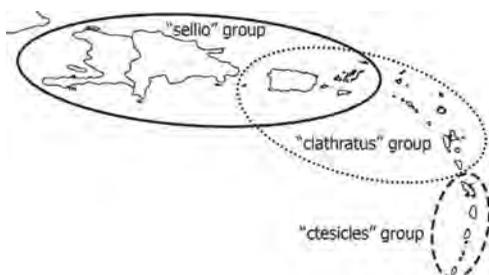


Fig. 102. Map of the distributions of *Diastolinus* species-groups on Hispaniola, Puerto Rico, the Virgin Islands, and the Lesser Antilles.

1984: 78 (in part Martinique records only); Peck 2011a: 33 (in part, Martinique records only), 2011b: 29 (in part, Martinique records only), 2016: 160 (in part, Martinique records only); Peck *et al.* 2014: 84 (in part, Martinique records only); Soldati and Touroult 2014: 99 (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), 2001: 251 (in part, Martinique? records only); Peck 2011b: 29 (in part, Martinique records only), 2016: 159 (in part, Martinique? records only); Soldati and Touroult 2014: 99 (in part, Martinique records only).

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



Fig. 103. Map of the distributions of *Diastolinus* species on Hispaniola.

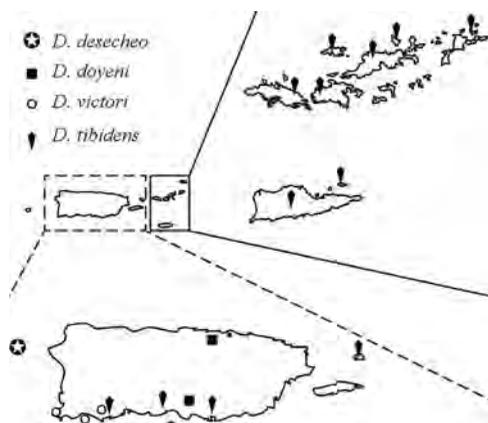


Fig. 104. Map of the distributions of the “sellio” species-group of *Diastolinus* species on Puerto Rico and Virgin Islands. Symbols on Puerto Rico represent collecting localities, and symbols on the Virgin Islands represent island distributions, not all collection events.

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 find 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 moving 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 by Marcuzzi, apparently forgetting he moved it to *D. hummelincki/mulsanti*, which was also retained.

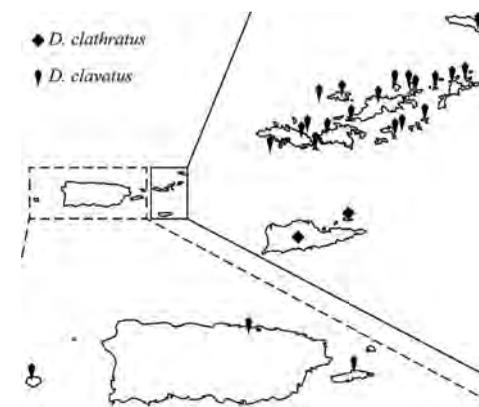


Fig. 105. Map of the distributions of the “clathratus” species-group of *Diastolinus* species on Puerto Rico and the Virgin Islands. Symbols represent island distributions, not all collection events.

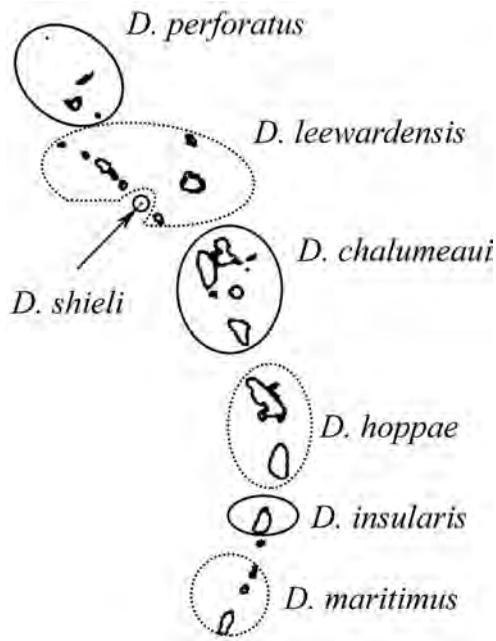


Fig. 106. Map of the distributions of *Diastolinus* species in the Lesser Antilles.

Peck (2011b, 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), 2016: 160 (in part, Puerto Rico records only); Peck *et al.* 2014: 84 (in part, Puerto Rico records only).

Discussion. This record is based on two specimens labeled “E of Guanica, station 704, 15. IX.1963”, collected by Wagenaar Hummelinck, and 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 nudum*)**

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

Discussion. The species to which this record refers is impossible to associate with any of the valid names available from Cuba, and no voucher

that can be associated with it has been found. It should be considered permanently removed from the literature.

DISCUSSION

Of the initial 13 historic *Diastolinus* species recognized at the beginning of this study, ten were found to be valid. An additional eight previously undescribed species were identified, for a current total of 18. Of these eight unnamed species, three had an existing nomenclatural history under misidentifications, some going back as far as 1859. Hundreds of misidentified island records were discovered and corrected, changing a picture of widespread, dispersalist taxa making more-or-less random multispecies assemblages across the eastern Caribbean into a far more informative pattern of three groups of species, ordered in adjacent regions, with most species clearly limited to banks exposed during the Pleistocene.

The “sellio” species-group (Fig. 102) is limited to the southern portion of Hispaniola (Fig. 103), the islands of the Puerto Rican Bank, and tiny Desecheo in the Mona Passage between the two (Fig. 104). It is unique in having multiple sympatric species on both Hispaniola and Puerto Rico. The “clathratus” species-group is centrally located within the range of the genus (Fig. 102), occupying most islands in the northeastern Caribbean arc from Mona to Dominica (Figs. 105, 106). The “ctesicles” species-group, with its unique morphology, is limited to the Windward Islands (Figs. 102, 106). More exploration of Martinique and the Grenadines may add to the range and diversity of this group. Both the “clathratus” and “ctesicles” species-groups have proven to have strictly allopatric species, with no geographic overlap at all, in stark contrast to the picture painted by the pre-revision literature.

The origin and biogeography of the early diversification of the genus will require a phylogenetic analysis to discuss in an appropriate manner, including a test of the monophyly of both the genus and species-groups. The absence of the “sellio” species-group, and *Diastolinus* in general, from the northern and central paleoislands of Hispaniola is interesting. The limitation, with one small deviation in *D. azuaensis*, of *Diastolinus* species to south of the Cul-de-Sac/Enriquillo Depression, roughly corresponding to the southern paleoisland, deserves more indepth investigation. Clearly, there is no lack of suitable habitat to the north, nor has there been a lack of collecting effort, as material of the ecologically similar *Xerolinus* is abundant (Ivie and Hart 2016). Emergent parts of northern/central Hispaniola and the Puerto Rican Bank have been available for

habitation since at least the Eocene (Iturralde and MacPhee 1999; McPhee *et al.* 2003), but not until the Miocene was the southern paleoisland of Hispaniola emergent (*loc. cit.*).

The northern/central paleoisland did not connect to the southern until the Miocene, after Puerto Rico and central Hispaniola were separated by the origin of the Mona Passage in the Oligocene (McPhee *et al.* 2003). It is tempting to suggest that the ancestor of the “sellio” species-group originated on the Puerto Rican Bank after the Hispaniola/Puerto Rico separation (Oligocene), and a propagule might have reached the southern paleoisland of Hispaniola before the north/south paleoislands fused (Miocene).

The “clathratus” species-group, with its generalized morphology, may represent the ancestral form, and its central location could indicate the area of origin was the Puerto Rican Bank. Again, its absence from Hispaniola indicates an origin after the formation of the Mona Passage in the Oligocene. If it is truly the ancestral group of the other species-groups, and if those other groups are monophyletic, then the origin of *Diastolinus* would be no older than the Oligocene.

What can be discussed more appropriately is the correspondence of modern distributions of species to Pleistocene banks. In almost every case, species are limited to groups of islands that were connected by land or close-adjacent during the eustatic minima of the late Pleistocene. *Diastolinus clavatus*, for instance, occurs over a large area from Puerto Rico throughout the northern Virgin Islands to Anegada, an area that was the island of Greater Puerto Rico 18,000 ybp. Its allopatric sister-species and fellow Virgin Islands species, *D. clathratus*, is limited to the St. Croix Bank, which was its own island to the south of Greater Puerto Rico. *Diastolinus tibidens* and *D. victori* also cleave closely to Greater Puerto Rico, the former ranging from Puerto Rico to Virgin Gorda, and the later sharing Puerto Rico and several of the cays to the south. Outliers of *D. tibidens* on Mona and St. Croix may be the result of human introductions. The extensive trade in agricultural products between St. Croix and St. Thomas during the Danish West Indies period would provide the means for the St. Croix introduction.

Other examples of this type of distribution are *D. perforatus* on the Anguilla Bank; *D. leewardensis* on the St. Martin Shelf, adjacent Barbuda-Antigua Shelf, plus nearby Saba and Montserrat; *D. chalumeui* on the three Banks in Guadeloupe (Guadeloupe Bank, Les Saintes Bank and Marie-Galante Bank) and nearby Dominica; *D. hoppae* on the island pair of St. Lucia and Martinique; as well as *D. maritimus* on the Grenadine Bank. The outlier of *D. perforatus* on Sombrero is explained by the movement of sand

from Anguilla to Sombrero during the building of the lighthouse. The species was limited to the remains of the sand pile near the loading area when Sombrero was surveyed in 1999 (MAI and J. Runyon, personal observation). The sharing of species between Guadeloupe and Dominica, and Martinique and St. Lucia islands not known to be linked during the Pleistocene, are mirrored in other groups, such as the scarab genus *Dynastes* Kirby, 1825 and the weevil genus *Cholus* Germar, 1824. Single island endemics on Redonda (*D. shieli*) and St. Vincent (*D. insularis*) are on islands that remained separate from all others during the Pleistocene. These patterns offer an excellent place to study divergence times, both between species and on islands within the various banks.

CHECKLIST OF THE SPECIES OF *DIASTOLINUS* MULSANT AND REY

The species of *Diastolinus* are alphabetically ordered within species-group. Island names follow Ivie and Hart (2016).

“Clathratus” Species-Group

- D. chalumeui* Hart and Ivie, **new species**
..... Guadeloupe, Dominica
- D. clathratus* (Fabricius, 1792).....
.....St. Croix, Buck Is. (STT)
- D. clavatus* Mulsant and Rey, 1859.....
Mona, Monito, Puerto Rico, Vieques,
St. Thomas, Saba Is. (STT), Buck Is. (STT),
Great St. James, Little St. James, Thatch
Cay (STT), St. John, Frenchman Cay (TOR),
Tortola, Great Tobago (Jost van Dyke), Guana
TOR), Marina Cay (TOR), Great Camanoe
(TOR), Beef Is. (TOR), Peter Is. (TOR),
Dead Chest (TOR), Ginger Is. (VG), George
Dog (VG), Prickly Pear Is. (VG), Virgin
Gorda, Anegada.
- D. hummelincki* Marcuzzi, 1962, **new synonymy**
- D. mulsanti* Marcuzzi and D’Aguilar, 1971,
new synonymy
- D. leewardensis* Hart and Ivie, 2016, **new species**....
..... Antigua, Barbuda, Saba, St. Eustatius, St. Kitts,
Nevis, Montserrat.
- D. perforatus* (Schönherr, 1806).....
..... Sombrero (ANG), Anguilla, Prickly Pear
Cay (ANG), St. Martin, Tintamarre (STM),
St. Barthélemy, Île de la Fourche
- D. shieli* Hart and Ivie, 2016, **new species**
..... Redonda

“Sellio” Species-Group

- D. azuaensis* Hart and Ivie, **new species**
..... Hispaniola

- D. coarctatus* (Mulsant and Rey, 1859).....
 Hispaniola
D. estebani Garrido, 2004, **new synonymy**
D. desecheo Hart and Ivie, **new species**.....
 Desecheo Is. (PR)
D. doyeri Hart and Ivie, **new species**.....
 Puerto Rico
D. espoloni Garrido, 2007..... Hispaniola
D. gladiator (Garrido, 2004)..... Hispaniola
D. tibidens (Quensel, 1806).....
 Puerto Rico, Culebra, St. Thomas, St. John,
 Jost van Dyke, Tortola, Guana (TOR),
 Prickly Pear Is. (VG), St. Croix,
 Buck Is. (STX)
D. vaderi Hart and Ivie, **new species** Hispaniola
D. victori Garrido, 2002..... Puerto Rico
D. elongatus Marcuzzi, 1977

“Ctesicles” Species-Group

- D. hoppae* Hart and Ivie, **new species**.....
 St. Lucia, Îlet Hardy (Martinique)
D. insularis (Champion, 1896)..... St. Vincent
D. maritimus (Champion, 1896).....
 Grenada, Mustique

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REFERENCES CITED

- Blackwelder, R. E. 1944.** Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America. Part 1. Bulletin of the United States National Museum 185(1): 1–188.
Blackwelder, R. E. 1945. Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America. Part 3. Bulletin of the United States National Museum 185(3): 343–550.
Caballer, M., J. Ortea, J. Espinosa, L. Moro, and J. J. Bacallado. 2012. Catálogo del material tipo de los nuevos taxones descritos en Avicennia, Revista de Biodiversidad Tropical (1993–2008). Revista de la Academia Canaria de Ciencias 23(3): 59–92 [2011].
Chalumeau, F. 1982. Tenebrionidae des Antilles françaises: description d'une nouvelle espèce, designation de lectotypes et observations diverse (Col.). Bulletin de la Société Entomologique de France 87: 187–195.
Chevrolat, L. A. A. 1877. Description d'une nouvelles d'Hétéromès provenat de l'Île de Porto-Rico, et recueillis par M. le docteur Gundlach. Bulletin de la Société Entomologique de France 1877: viii–xi.
Champion, G. C. 1896. On the heteromerous Coleoptera of St. Vincent, Grenada, and the Grenadines. Transactions of the Entomological Society of London 1896: 1–54, plate 1.
Darlington, P. J. Jr., 1943. Carabidae of mountains and islands: data on the evolution of isolated faunas, and on atrophy of wings. Ecological Monographs 13(1): 37–61.
Dejean, P. F. M. A. 1821. Catalogue de la Collection de Coléoptères de M. le baron Dejean. Paris, France.
Fabricius, J. C. 1792. *Entomologia systematica emendata et aucta*. Tome I. Hafniae, Denmark.
Flautiaux, E., and A. Sallé. 1889. Liste des Coléoptères de la Guadeloupe et descriptions d'espèces nouvelles. Annales de la Société Entomologique de France, series 6, 9: 351–484 + plates 7–8.
Garrido, O. H. 2002. El género *Diastolinus* (Coleoptera: Tenebrionidae: Pedinini) en Puerto Rico, con la designación de un nombre nuevo para *D. elongatus*. Solenodon 2: 38–41.
Garrido, O. H. 2003. Lista anotada de los insectos tenebriónidos (Coleoptera) de Puerto Rico y sus islas adyacentes. Cocuyo 13: 26–27.
Garrido, O. H. 2004a. Tres especies nuevas de *Diastolinus* (Coleoptera: Tenebrionidae, Pedinini) para la Hispaniola. Solenodon 4: 40–45.
Garrido, O. H. 2004b. Especie nueva de *Sellio* (Coleoptera: Tenebrionidae, Pedinini) para la República Dominicana. Avicennia 17: 119–122.
Garrido, O. H. 2007. Nueva especie de *Diastolinus* (Coleoptera: Tenebrionidae: Pedinini) para la República Dominicana. Avicennia 19: 45–48.
Gebien, H. 1938. Katalog der Tenebrioniden. Teil II. Mitteilungen der Münchener Entomologischen Gesellschaft 28 (1938a): 283–314 [402–433], (1938b): 397–428 [434–465].
Herrera-Uria, J., E. Aranda, E. Gutierrez, R. Rojas, O. H. Garrido, G. Alayon, and L. M. Diaz. 2015. Type specimens housed in the National

- Museum of Natural History of Cuba. *Solenodon* 12: 84–123.
- Hopp, K. J., and M. A. Ivie. 2009.** Revision of the West Indian genus *Nesocyrtosoma* Marcuzzi (Coleoptera: Tenebrionidae). *The Coleopterists Society Monograph Number 8*: 1–138.
- ICZN. 1999.** International Code of Zoological Nomenclature. Fourth Edition. The International Trust for Zoological Nomenclature, The Natural History Museum, London, UK.
- Iturralde-Vinent, M. A., and R. D. E. MacPhee. 1999.** Paleogeography of the Caribbean region: implications for Cenozoic biogeography. *Bulletin of the American Museum of Natural History* 238: 1–95.
- Ivie, M. A. 1985.** Nomenclatorial notes on West Indian Elaphidiini (Coleoptera: Cerambycidae). *The Pan-Pacific Entomologist* 61(4): 303–314.
- Ivie, M. A. 2002.** Keys to families of beetles in America north of Mexico [pp. 816–835]. *In: American Beetles, Vol. 2: Polyphaga: Scarabaeoidea through Curculionoidea* (R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley, and J. H. Frank, editors). CRC Press, Boca Raton, FL.
- Ivie, M. A. 2009.** Table C. Beetles of Saint Lucia [pp. 63–69]. *In: Biodiversity assessment of Saint Lucia's forest, with management recommendations*. Technical Report N° 10 to the National Forest Demarcation and Bio-physical Resource Inventory (J. C. Daltry, editor). FCG International Ltd., Helsinki, Finland. www.bananatrustslu.com (accessed 30 December 2015).
- Ivie, M. A., and C. J. Hart. 2016.** Redefinition of *Diastolinus* Mulsant and Rey, with a review of West Indian blapstinoid genera (Coleoptera: Tenebrionidae: Opatrini). *The Coleopterists Bulletin* 70(3): 447–481.
- Ivie, M. A., K. A. Marske, I. A. Foley, K. A. Guerrero, and L. L. Ivie. 2008.** Invertebrates of the Centre Hills and Montserrat, with an emphasis on beetles [pp. 56–89]; Appendix 2, Species lists of the beetles, non-beetle hexapods and non-hexapod invertebrates of Montserrat [pp. 237–311]; and Appendix 4, Information on invertebrate voucher specimens [p. 319]. *In: A Biodiversity Assessment of the Centre Hills, Montserrat*. (R. P. Young, editor). Durrell Conservation Monograph 1.
- Iwan, D. 2001.** A comparative study of male genitalia in Opatrinae *sensu* Medvedev (1968) (Coleoptera: Tenebrionidae), with notes on the tribal classification. Part I. *Annales Zoologici (Warszawa)* 51: 351–390.
- Iwan, D. 2004.** A comparative study of male genitalia in Opatrinae *sensu* Medvedev (1968) (Coleoptera: Tenebrionidae), with notes on the reinterpreted tribal classification. Part II. *Annales Zoologici* 54: 735–765.
- Leng, C. W., and A. J. Mutchler. 1914.** A preliminary list of the Coleoptera of the West Indies. *Bulletin of the American Museum of Natural History* 33: 391–493.
- Lucas, R. 1920.** *Catalogus alphabeticus generum et subgenerum coleopterorum orbis terrarum totius*. Pars I. Berlin, Germany.
- MacPhee, R. D. E., M. A. Iturralde-Vinent, and E. S. Gaffney. 2003.** Domo de Zaza, an early Miocene vertebrate locality in south-central Cuba, with notes on the tectonic evolution of Puerto Rico and the Mona Passage. *American Museum Novitates* 3394: 1–42.
- Marcuzzi, G. 1949.** Contribución al conocimiento de los tenebrionidos de Venezuela. *Memoria de la Sociedad de Ciencias Naturales la Salle* 9: 333–352.
- Marcuzzi, G. 1950.** Descrizione di cinque nuove specie di Tenebrionidae del Venezuela (1), (Col. Heteromera). *Memorie della Società Entomologica Italiana* 29: 105–109.
- Marcuzzi, G. 1954.** Tenebrionid beetles of Curaçao, Aruba, Bonaire and the Venezuelan Islands. *Studies on the Fauna of Curaçao and other Caribbean Islands* 22: 1–36.
- Marcuzzi, G. 1957.** Considerazioni zoogeografiche sui Tenebrionidi delle Antille. *Estratto dal Monitore Zoologico Italiano* 65(3): 127–141.
- Marcuzzi, G. 1959.** Tenebrionid beetles of Curaçao, Aruba, Bonaire and Venezuela. *Studies on the Fauna of Curaçao and other Caribbean Islands* 40: 79–89.
- Marcuzzi, G. 1962.** Tenebrionid beetles of the West Indies. *Studies on the Fauna of Curaçao and other Caribbean Islands* 57: 21–48.
- Marcuzzi, G. 1976.** New species of Neotropical Tenebrionidae (Coleoptera). *Annales Historico-Naturales Musei Nationalis Hungarici* 68: 117–140.
- Marcuzzi, G. 1977.** Further studies on Caribbean tenebrionid beetles. *Studies on the Fauna of Curaçao and other Caribbean Islands* 170: 1–71.
- Marcuzzi, G. 1983.** Description of the external male genitalia of some Neotropical Tenebrionidae (Col. Heteromera). *Folia Entomologica Hungarica* 44(2): 239–269.
- Marcuzzi, G. 1984.** A catalogue of the tenebrionid beetles (Coleoptera: Heteromera) of the West Indies. *Folia Entomologica Hungarica* 45(1): 69–108.
- Marcuzzi, G. 1986.** Descrizione di nuovi taxa di Tenebrionidi Neotropicali (Coleoptera, Tenebrionidae). *Annales Historico-Naturales Musei Nationalis Hungarici* 78: 177–186.
- Marcuzzi, G. 1987.** Description of the external female genitalia of some Neotropical Tenebrionidae (Coleoptera: Heteromera). *Acta Zoologica Hungarica* 33(1–2): 87–112.
- Marcuzzi, G. 1989.** Structure of genitalia and phylogenesis of Neotropical tenebrionids (Insecta: Coleoptera: Tenebrionidae). *Senckenbergiana biologica* 69: 345–367.
- Marcuzzi, G. 1998.** Supplement to the catalogue of Tenebrionidae (Coleoptera) of the West Indies. *Annales Historico-Naturales Musei Nationalis Hungarici* 90: 151–162.
- Marcuzzi, G. 2001.** One new species and two new subspecies of Tenebrionidae (Coleoptera) of the West Indies, with new distributional data for other species of this family. *Bulletin de la Société linnéenne de Bordeaux* 29: 249–253.
- Marcuzzi, G. 2002.** Description of some new Neotropical Tenebrionidae (Coleoptera, Heteromera). *Annali del Museo Civico di Storia Naturale G. Doria* 94: 395–406.
- Marcuzzi, G., and C. Cravera. 1981.** Illustrazione di larve di Coleotteri Tenebrionidi dell'area Caraibica. *Quaderni di Ecologia Animale* 17: 3–11.

- Marcuzzi, G., and J. D'Aguilar. 1971.** Catalogue raisonné des insectes des Antilles Françaises, Coléoptères: Tenebrionidae. *Annales Zoologie Écologie Animale* 3(1): 79–96.
- Mulsant, E., and C. Rey. 1859.** Essai d'une division des derniers Mélasomes (*Blapstinites*). *Opuscules Entomologiques* 9: 65–137. [Bibliographie de la France recorded this cahier on 19 November 1859, and this is confirmed by the 1859 “Dépôt legal” stamp from Rhône in the Bibliothèque nationale de France, as seen in Gallica.] gallica.bnf.fr/ (accessed 30 December 2015).
- Mulsant, E., and C. Rey. 1860.** Essai d'une division des derniers Mélasomes (*Blapstinites*). *Annales des Sciences Physiques et Naturelles d'Agriculture et d'Industrie, Publiées par la Société impériale d'Agriculture, etc., de Lyon [1859] series 3, volume 3: 129–201.* [The frontpage of this issue in the Bibliothèque nationale de France, as seen in Gallica, shows a stamped date of 1860 and a “Dépôt legal” stamp from Rhône of 1860. The Dépôt legal is a copy sent to the National Library required by French Law on the date of publication. Thus, this version was made available in 1860 under the ICZN.] gallica.bnf.fr/ (accessed 30 December 2015).
- Peck, S. B. 2005.** A checklist of the beetles of Cuba: with data on distributions and bionomics (Insecta: Coleoptera). *Arthropods of Florida and Neighboring Land Areas* 18: 1–241.
- Peck, S. B. 2006.** The beetle fauna Dominica, Lesser Antilles (Insecta: Coleoptera): diversity and distribution. *Insecta Mundi* 20: 165–209.
- Peck, S. B. 2010.** The beetles of the island of St. Vincent, Lesser Antilles (Insecta: Coleoptera): diversity and distribution. *Insecta Mundi* 144: 1–78.
- Peck, S. B. 2011a.** The diversity and distributions of the beetles (Insecta: Coleoptera) of the Northern Leeward Islands, Lesser Antilles (Anguilla, Antigua, Barbuda, Nevis, Saba, St. Barthélemy, St. Eustatius, St. Kitts, and St. Martin-St. Maartin. *Insecta Mundi* 159: 1–54.
- Peck, S. B. 2011b.** The beetles of Martinique, Lesser Antilles (Insecta: Coleoptera): diversity and distribution. *Insecta Mundi* 178: 1–57.
- Peck, S. B. 2016.** The beetles of the Lesser Antilles (Insecta, Coleoptera): diversity and distributions. *Insecta Mundi* 460: 1–360.
- Peck, S. B., M. C. Thomas, and R. H. Turnbow. 2014.** The diversity and distributions of the beetles (Insecta: Coleoptera) of the Guadeloupe archipelago (Grand Terre, Basse Terre, La Désirade, Marie-Galante, Les Saintes, and Petite-Terre), Lesser Antilles. *Insecta Mundi* 352: 1–156.
- Perez-Gelabert, D. 2008.** Arthropods of Hispaniola (Dominican Republic and Haiti): a checklist and bibliography. *Zootaxa* 1831: 1–530.
- Quensel, C. 1806.** *Blaps tibidens* [p. 147]. *In: Synonymia insectorum, oder: Versuch einer Synonymie aller bisher bekannten Insecten; nach Fabricii Systema Eleutheratorum geordnet. Mit Berichtigungen und Anmerkungen, wie auch Beschreibungen neuer Arten und illuminirten Kupfern. Erster Band. Eleutherata oder Käfer. Erster Theil. Lethrus - - - Scolytes* (C. J. Schönherr, editor). Nordström. Stockholm, Sweden.
- Sahlberg, C. R. 1823.** *Periculi entomographici, species insectorum nondum descriptas proposituri. Pars 1.* Aboae: Typis Frenczelliorum 1: 1–16.
- Schönherr, C. J. 1806.** *Synonymia insectorum, oder: Versuch einer Synonymie aller bisher bekannten Insecten; nach Fabricii Systema Eleutheratorum geordnet. Mit Berichtigungen und Anmerkungen, wie auch Beschreibungen neuer Arten und illuminirten Kupfern. Erster Band. Eleutherata oder Käfer. Erster Theil. Lethrus - - - Scolytes.* Nordström. Stockholm, Sweden.
- Soldati, L., and J. Touroult. 2014.** Catalogue des coléoptères Tenebrionidae (Alleculinae exclus) des Antilles françaises (pp. 90–108). *In: Contribution à l'Étude des Coléoptères des Petites Antilles. Tome II* (J. Touroult, editor). Supplément au bulletin de liaison d'ACOREP-France “Le Coléoptériste”.
- Valentine, B. D., and M. A. Ivie. 2005.** Beetles: Coleoptera [pp. 274–282]. *In: Island: Fact and Theory in Nature* (J. Lazell, editor). University of California Press, Berkeley, CA.
- Wagenaar Hummelinck, P. 1982.** Land and fresh-water localities. Studies on the Fauna of Curaçao and other Caribbean Islands 192: 1–124 + plates 1–1L [1981].
- Wheeler, Q. D., and N. I. Platnick. 2000.** The phylogenetic species concept (*sensu* Wheeler and Platnick) [pp. 55–69]. *In: Species Concepts and Phylogenetic Theory. A Debate* (Q. D. Wheeler, and R. Meier, editors). Columbia University Press, New York, NY.
- Wolcott, G. N. 1923.** *Insectae Portoricensis.* A preliminary annotated checklist of the insects of Porto Rico, with some descriptions of some new species. *Journal of the Department of Agriculture of Porto Rico* 7: 5–311.
- Wolcott, G. N. 1936.** “*Insectae Borinquenses*”: a revised annotated check-list of the insects of Puerto Rico. *The Journal of Agriculture of the University of Puerto Rico* 20: 1–627.
- Wolcott, G. N. 1951.** The insects of Puerto Rico. *Coleoptera. Journal of Agriculture of the University of Puerto Rico* 32 [1948]: 225–416.
- Woodruff, R. E., B. M. Beck, P. E. Skelley, C. Y. L. Schotman, and M. C. Thomas. 1999.** Checklist and bibliography of the insects of Grenada and the Grenadines. *Center for Systematic Entomology Memoirs* 2: 1–286.

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APPENDIX 1

Other (Non-Type) Material Examined

Diastolinus clathratus (Fabricius)

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).

***Diastolinus chalumeau* Hart and Ivie**

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, sand washing (1 WIBF).

***Diastolinus clavatus* Mulsant and Rey**

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; Chocolate 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 hummelinki* 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).

***Diastolinus leewardensis* Hart and Ivie**

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).

***Diastolinus perforatus* (Schönherr)**

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).

***Diastolinus coarctatus* (Mulsant and Rey)**

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).

***Diastolinus desecheo* Hart and Ivie**

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

***Diastolinus espoloni* Garrido**

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 (5. EMEC, 15 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).

***Diastolinus gladiator* (Garrido)**

REP.DOM. Pedernales; Prov. Cabo Rojo; XII-28-1986 Doyen; & Santiago/ thorn scrub association; under stones (3 EMEC, 11 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 Rojo 30–45m; 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).

***Diastolinus tibidens* (Quensel)**

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; H.A.Beatty (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; Caneel Bay 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).

Diastolinus victori Garrido

Puerto Rico: Guanica; For.Res. 26SEPT1987; M.A.Ivie colr.33m; beating, thornsrb (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 Neams, 26JULY2004 (1 FSCA). Puerto Rico: Reserva Forestal; Guanica 6mi SE Guanica; XII-24-1986; J.Doyen & J.Santiago (1 EMEC, 5 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. Swearingen; 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. Swearingen; O. H. Garrido; A. R. Perez-Asso; collectors (6 NMNH). Puerto Rico: Guanica; I.12.1915 (1 AMNH). Guanica St. For.; P.R. 11-I-68; F.Fisk collr. (8 OSUC).

Diastolinus hoppae Hart and Ivie

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