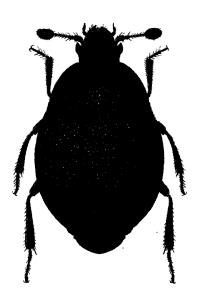
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THE AELETES OF THE HAWAIIAN ISLANDS (COLEOPTERA: HISTERIDAE)

Tomàs Yélamos





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# **BISHOP MUSEUM**

The State Museum of Natural and Cultural History 1525 Bernice Street Honolulu, Hawai'i 96817-0916, USA

# THE AELETES OF THE HAWAIIAN ISLANDS (COLEOPTERA: HISTERIDAE)

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ABSTRACT. A review of the Hawaiian species of Aeletes Horn (Coleoptera: Histeridae) is presented, based on a study of the specimens deposited in Bishop Museum in Honolulu, the Natural History Museum in London, and the South Australian Museum in Adelaide. These comprise 53 species, including 19 described as new. Bacanius confusus is transferred to the genus Aeletes; A. longipes var. haleakalae and A. facilis var. hawaiiensis are elevated to species status; specimens misidentified as A. basalis are described as A. scotti, n. sp.; one specimen determined by Scott (1908) as Acritus sp. is now described as A. aldridgei, n. sp. The following species are also newly described: A. swezeyi, A. sharpi, A. kaalae, A. lewisi, A. blackburni, A. oahuensis, A. neckerensis, A. orioli, A. fordi, A. espanoli, A. zimmermani, A. mohihiensis, A. kilaueae, A. fuscus, A. samuelsoni, A. negrei, and A. romiae. A table showing the occurrence of the species on the Hawaiian Islands is given. Some drawings of important morphological characters are included.

#### INTRODUCTION

Prior to this work, 33 species of *Aeletes* from the Hawaiian Islands were recorded (Scott 1908). These species were described by Lewis (1879; 1 species), Blackburn and Sharp (1885; 4 species), and Scott (1908; 26 species). In addition, one was misidentified and another undetermined.

Although several subsequent contributions to the knowledge of the histerid fauna from this archipelago have been made, no specific study had been made on the Hawaiian *Aeletes*. The present work is largely based on Bishop Museum in Honolulu (BPBM) material and includes all specimens accumulated since the Fauna Hawaiiensis survey (Scott 1908). Additional specimens were also studied from the Natural History Museum in London (BMNH), the South Australian Museum in Adelaide (SAM), and the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts (MCZ).

In all, 278 Aeletes were studied, with genitalia dissected from almost all of them. The undetermined specimens from BPBM had to be prepared again, while the remaining specimens were apparently remounted by Scott on  $9 \times 13$  mm cards with handwritten notes. This work was completed in 1989.

Measurements given below do not include head and pygidium.

#### Genus Aeletes Horn

Aeletes Horn, 1873. Proc. Am. Philos. Soc., 13:356.

For some time this genus was considered a junior synonym and a subgenus of *Acritus*. *Aeletes* is characterized mainly by lack of scutellum and epistoma with marginal striae on sides and on the anterior margin.

Blackburn (Blackburn & Sharp 1885) described monticola as Aeletes. Sharp (Blackburn & Sharp 1885) also described longipes, concentricus, and facilis as Aeletes, and insularis as Acritus. Scott (1908) considered Aeletes as junior synonym of Acritus.

Only *insularis* is now included in the genus *Acritus*, but as a synonym of *komai* Lewis, 1879. Bickhardt (1916–1917) and Wenzel & Dybas (1941) considered *Aeletes* as a subgenus of *Acritus*.

Aeletes contains 67 species, including 2 in the subgenus Acritinus Casey, 1916. The latter subgenus in known only from America, whereas the largest number of species of Aeletes s. str. are, in fact, in the Hawaiian Islands. They are also abundant in America (Wenzel 1944; Mazur 1984), with some species in Australia (Gomy 1984), New Caledonia (Wenzel 1955; Gomy 1982), Fiji (Gomy 1983), Seychelles (Scott 1913), and the Paleartic Region (Mazur 1984).

These small Histeridae (both immatures and adults) live in decaying wet wood and in trees.

Many specimens presently studied were collected some years ago either in zones now built up (e.g., Oahu) or covered with lava by several volcanic eruptions (e.g., Hawaii). In consequence, it might be thought that several species now studied are already extinct.

## KEY TO SPECIES OF HAWAIIAN AELETES

1.	Pronotum with either stria or antescutellar impression (Fig. 1)
_	Pronotum without stria or antescutellar impression
2.	Prosternal striae separated, short; prosternal keel at most 2.5× longer than
	minimum width (Fig. 27)
_	Prosternal striae approximate, long; prosternal keel at least 2.5× longer than
	minimum width (Fig. 33)
3.	minimum width (Fig. 33)
_	Prosternal striae much more divergent at apex than base, extending toward
	prosternal margins, with convex medial area, or very divergent at base and apex
	(Fig. 9)
4.	Mesosternum not depressed swezeyi, n. sp.
_	Mesosternum depressed5
5.	Prosternal striae well marked, cariniform, with depressed central area;
	metasternum and 1st abdominal sternite coarsely and closely punctate
_	Prosternal striae distinct but not cariniform, with flat or slightly convex central
	area; metasternum finely punctured only on disk; 1st abdominal sternite
	impunctate
6.	Lateral metasternal stria not arcuate, very close to meso-postcoxal stria (Fig. 43);
	metasternum coarsely and closely punctate; antescutellar stria strongly crenate
	sharpi, n. sp.
_	Lateral metasternal stria very arcuate and separated from the meso-postcoxal stria;
	metasternum punctate only on disk (Fig. 44); antescutellar stria crenulate
	lanaiensis (Scott)
7.	1
	transverse, extending to mesosternum and near area of metasternum, its bottom
	coincident with suture
_	Antescutellar stria long, slightly recurved toward base; mesosternal depression not
	transverse, extended only to mesosternal disk, more or less deep 8
8.	Outer mesepimeral stria next to inner, not continuous with lateral metasternal stria
	(Fig. 46) eutretus (Scott)
	Outer mesepimeral stria separated from inner and close to its margin, continuous
	with metepisternal stria (Fig. 47)scotti, n. sp.

9.	Prosternal striae divergent at base and apex, usually more divergent at apical
	portion (Fig. 31)
_	Prosternal striae parallel at base, divergent at apical portion (Fig. 32)
10.	Prosternal keel equal to or less than 2× longer than its minimum width, with
	conspicuous apical protuberance kaalae, n. sp.
_	Prosternal keel 2H longer than its minimum width, whether there is apical
	protuberance or not
11.	Mesosternum with abundant sulci on depressed zone perkinsi (Scott)
_	Mesosternum smooth but depressed
12.	Lateral metasternal stria weakly arcuate and next to meso-postcoxal stria (Fig. 49);
	prosternal striae regularly curved, approximate at medial portion (Fig. 9); apical ½
	of prosternum directed downward lewisi, n. sp.
_	Lateral metasternal stria widely arcuate, separated from meso-postcoxal stria (Fig.
	50); prosternal striae subparallel at medial portion; apical ½ of prosternum not
	directed downward (several species have a small rounded protuberance)
13.	Antescutellar impression recurved only at the ends toward base (Fig. 4);
	antescutellar interval slightly depressed; prosternum with a distinct protuberance
	on the apical portion; inner mesepimeral stria forming a closed angle; space
	between both mesepimeral striae trapezoidal (Fig. 50)
_	Antescutellar impression gradually recurved toward base (Fig. 5); antescutellar
	interval not depressed; prosternum without protuberance on apical portion; inner
	mesepimeral stria regularly curved; space between mesepimeral striae not
1.4	trapezoidal (Fig. 51)
14.	
	punctate on disk; lateral metasternal stria widely arcuate (Fig. 52); meso-postcoxal plaque and mesepimeron strongly alutaceous, with their striae not marked by
	punctures
	Antescutellar impression either short, straight, not separated in 2 parts or long,
_	irregular, very recurved toward base; metasternum impunctate; lateral metasternal
	stria slightly arcuate (Fig. 53); meso-postcoxal plaque and mesepimeron weakly or
	not at all alutaceous, striae sometimes marked by punctures
15.	Antescutellar stria short and straight; meso- and meta-postcoxal plaques and
15.	mesepimeron alutaceous; space between both mesepimeral striae relatively broad
	(Fig. 53); these striae marked by punctures; apical ½ of aedeagus broad, suddenly
	narrowed at apex (Fig. 93)
_	Antescutellar stria irregular and recurving toward base; meso-postcoxal plaque and
	mesepimeron finely alutaceous; meta-postcoxal plaque not alutaceous; space
	between both mesepimeral striae very narrow, their bases approximate at basal
	margin (Fig. 32); these striae marked by very fine punctures; apical ½ of aedeagus
	gradually narrowed (Fig. 94)oahuensis, n. sp.
16.	Prosternal striae divergent at apex (Fig. 33)
_	Prosternal striae subparallel, weakly divergent at base and apex, never strongly
	divergent at apex (Fig. 13)
17.	Mesosternum not depressed, with many deep sulci directed toward base (Fig. 33);
	meso-postcoxal plaque and mesepimeron not alutaceous (Fig. 54); anophthalmic;
	antescutellar stria short; body form elongate oval neckerensis, n. sp.
_	Mesosternum depressed, with few shallow wrinkles; meso-postcoxal plaque and
	mesepimeron alutaceous (Fig. 55); eyes well developed; antescutellar stria long;
	body form broad oval germanus (Scott)

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18.	Mesosternum, metasternum, and elytra with large and close punctures on entire surface (Fig. 56); 1st abdominal sternite less punctured similis (Scott)
-	Mesosternum, metasternum, and elytra impunctate or with minute and sparse punctures, unevenly distributed; 1st abdominal sternite impunctate or with minute punctures
19.	Prosternum directed downward at apical portion; apex of aedeagus short and gradually narrowed (Fig. 97)
- 20.	Prosternum flat; apex of aedeagus long, suddenly narrowed (Fig. 98)
20.	mesosternum with longitudinal sulci on all the surface; prosternal striae slightly divergent at apex, evanescent; metasternum with a few small and sparse punctures; aedeagus scarcely recurved (Fig. 97)
-	Inner mesepimeral stria forming a marked angle; mesosternum with only a few weakly impressed wrinkles; prosternal striae slightly divergent at base, parallel at apex, conspicuous; metasternum with well-marked and sparse punctures on disk; aedeagus distinctly recurved
21.	Body form elongate, depressed; prosternal striae divergent, nearly equal at base
-	and apex (Fig. 15); apex of aedeagus long, narrow (Fig. 99) subbasalis (Scott) Body form oval, regularly convex; prosternal striae more divergent at base than apex (Fig. 14); apex of aedeagus less narrow and shorter (Fig. 98)
22.	Body form oval and convex; antescutellar stria well marked, long, and nearly
	reaching prosternal base (Fig. 7); prosternal striae evanescent at apex (Fig. 16); apex of aedeagus broad (Fig. 100)
-	Body form elongate and depressed; antescutellar stria straight and shallow (Fig. 8); prosternal striae well defined; apex of aedeagus narrower (Fig. 101)
23.	Elytra fused; meso-postcoxal plaque and mesepimeron not alutaceous; abdominal sternites reduced, incurved, and placed inside 1st sternite; eyes reduced to a few facets, with distinct ocular lobes; prosternal keel less than 2× longer than minimum width (Fig. 34)
_	Elytra not fused; abdominal sternites not as above; remaining characteristics
24.	variable
	Lateral metasternal stria well defined; mesepimeral striae distinct (Fig. 60) 25
<u>-</u> 25.	Surface punctulate; mesosternum not depressed
-	Surface impunctate, with only a few fine and sparse punctures on some zones;
26.	mesosternum depressed
	suture; outer mesepimeral stria ending near outer mesepimeral angle (Fig. 61); apex of aedeagus broad, suddenly truncate (Fig. 103) solitarius (Scott)
_	
	Lateral metasternal stria continuous with outer mesepimeral stria on mesepimeral
	Lateral metasternal stria continuous with outer mesepimeral stria on mesepimeral suture; outer mesepimeral stria ending far from outer mesepimeral angle (Fig. 62); apex of aedeagus narrow, not truncate
27.	Lateral metasternal stria continuous with outer mesepimeral stria on mesepimeral suture; outer mesepimeral stria ending far from outer mesepimeral angle (Fig. 62); apex of aedeagus narrow, not truncate
27. –	Lateral metasternal stria continuous with outer mesepimeral stria on mesepimeral suture; outer mesepimeral stria ending far from outer mesepimeral angle (Fig. 62); apex of aedeagus narrow, not truncate

<i>2</i> 0.	Prosternal striae very strong, somewhat divergent at base, remainder parallel
	(Fig. 35) espanoli, n. sp.
_	Prosternal striae divergent at base and at apex (Fig. 17)
29.	Prosternal keel more than 2× longer than minimum width (Fig. 17)
_	Prosternal keel at most 2H longer than minimum width (Fig. 22)
30.	Mesosternum not depressed; surface impunctate
_	Mesosternum depressed; surface either punctate or impunctate
31.	Prosternal keel very long, more than 3× minimum width; prosternal striae
	approximate medially, recurved and divergent at apex; prosternal apex protuberant
	(Fig. 17); pygidium not alutaceous, with only few sparse punctures; lateral
	metasternal stria separated from outer mesepimeral and metepisternal striae; outer
	mesepimeral and metepisternal striae continuous (Fig. 64) zimmermani, n. sp.
_	Prosternal keel less than 3H minimum width, subparallel medially, weakly
	recurved and weakly divergent at apex; apex not protuberant (Fig. 18); pygidium
	alutaceous impunctate; coincide on mesepimeral suture, outer mesepimeral, lateral
	metasternal, and metepisternal striae (Fig. 65)
32.	Mesosternal depression shallow; prosternal striae quite separated from each other;
32.	prosternal keel short, about 2.5× minimum width; apex of prosternum with distinct
	tubercle (Fig. 19); surface impunctatekilaueae, n. sp.
	Mesosternal depression deep; prosternal striae long, subparallel; prosternal keel
_	greater than or equal to 3H its minimum width; no prosternal apical tubercle (Fig.
	20); surface punctate
22	Lateral metasternal stria weakly arcuate, close to the meso-postcoxal stria
33.	(Fig. 67); surface punctulate, depressed; length about 1.0 mm waianaae (Scott)
	Lateral metasternal stria strongly arcuate, separate from the meso-postcoxal stria
	(Fig. 68) as well as both mesepimeral striae; surface punctulate, convex; length
	about 1.5 mm monticola Blackburn
24	about 1.5 mm
34.	Surface impunctate or with fine strioles on pronotum and elytra
25	Surface strongly punctate
35.	
	scratches, nearly longitudinal on pronotum and elytral base, recurved inward
	toward suture on medial portion of elytra, transverse apically concentricus Sharp
26	Mesosternum depressed; surface without punctures or strioles insolitus (Scott)
36.	First abdominal sternite impunctate or with small punctures; body form elongate,
	narrow, convex
_	First abdominal sternite punctured like metasternum; surface strongly punctate,
25	not foveate; body oblong
37.	Surface densely foveate
_	Surface punctate, without foveae
38.	Prosternum with apical ½ convex, striae regularly curved; mesepimeron coarsely
	and closely punctate; mesepimeral striae widely arcuate, separate; lateral
	metasternal stria weakly arcuate, close to meso-postcoxal stria (Fig. 72); pygidium
	punctulate, alutaceous
_	Prosternum flat; striae parallel at middle, extending obliquely on margins to apex
	(Fig. 23); mesepimeron minutely and sparsely punctured; mesepimeral striae
	slightly arcuate, approximate; lateral metasternal stria arcuate, separate from
	meso-postcoxal stria (Fig. 74); pygidium impunctate or finely and sparsely
	punctured
39.	Propygidium and pygidium punctulate, regularly arranged, not alutaceous; apical
	portion of elytra not rugose; meso-postcoxal plaque impunctate kukuiae (Scott)

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-	Propygidium and pygidium strongly alutaceous, with only few minute and sparse punctures; apical portion of elytra rugose; general appearance dull; meso-
40.	postcoxal plaque punctulate
_	Aedeagus distally broad, suddenly narrowed at apex (Fig. 113); metepisternal stria very shallow, almost indistinct; abundant microsculpture among punctures; outer mesepimeral stria close to lateral metasternal stria on mesepimeral suture (Fig. 75)  fuscus, n. sp.
41. –	
42.	
_	Pronotal and elytral surface not rugose or forming striae, evanescent at apex; prosternal striae not divergent at base (Fig. 36); inner mesepimeral stria separate from inner edge (Fig. 76)
43.	
_	Meso-metasternal suture depressed; mesosternum, metasternum, and margins with fine, sparse punctures; metasternal disk flat; meso-postcoxal plaque and mesepimeron slightly alutaceous; outer mesepimeral stria not curved near mesepimeral suture (Fig. 77)
44.	Elytral surface rugose, with coalescent punctures forming irregular striae curved inward toward suture
<u> </u>	Surface punctate
_	Surface impunctate or almost impunctate
46.	keel less than or equal to 2× minimum width; prosternal striae sometimes slightly divergent at base (Fig. 38)
-	Prosternal keel rather convex; frontal suture distinct; length of prosternal keel variable
47.	Prosternal striae gradually divergent toward apex, space between them punctate; prosternal keel about 2× basal width (Fig. 39)molokaiae (Scott)
-	Prosternal striae parallel at base, divergent at middle, space between them minutely punctured or impunctate; prosternal keel more than 2.5H basal width (Fig. 40)
48.	Inner mesepimeral stria oblique, not parallel to inner margin (Fig. 81); apex of aedeagus regularly narrowed (Fig. 118)
_	Inner mesepimeral stria parallel to inner margin, separated from outer stria
	(Fig. 82); apex of aedeagus suddenly narrowed (Fig. 120), sometimes with preapical constriction
	I I

49.	suture, separate from outer mesepimeral stria (Fig. 82); apex of aedeagus with well-marked preapical constriction (Fig. 119)
_	Lateral metasternal stria weakly arcuate, separate from metepisternal stria,
	continuous with outer mesepimeral stria on mesepimeral suture (Fig. 83);
	aedeagus without preapical constriction (Fig. 120) kauaiensis (Scott)
50.	Meso-metasternal suture not depressed
_	Meso-metasternal suture depressed
51.	Prosternal keel about 2.5× minimum width (Fig. 26); prosternal striae strongly
	divergent at apex
_	Prosternal keel about 2H minimum width (Fig. 25); prosternal striae slightly
	divergent at apex
52.	Prosternal keel without preapical protuberance; outer mesepimeral stria recurved
	outward, not coinciding with lateral metasternal stria (Fig. 85); length 1.3 mm
	laevis (Scott)
_	Prosternal keel with small preapical protuberance; outer mesepimeral stria not
	recurved outward, coinciding with lateral metasternal and metepisternal striae
	(Fig. 84); length 1.0 mmsubalatus (Scott)
	(5-0)

#### **SYSTEMATICS**

# Aeletes swezeyi Yélamos, new species

Figs. 1, 27, 42

**Description.** Body form oval, elongate, slightly convex, yellowish brown, weakly shining. Antennae lighter; scape long, slightly dilated, darker than funicle, 1st joint about as long as wide, larger than rest, small, yellow, setose; antennal club large, darker than funicle, pubescent.

Head impunctate, with only slight microsculpture, dark color. Eyes well developed.

Pronotum quite broad at base, strongly narrowed at apex, weakly bisinuate on sides, with marginal stria almost indistinct behind head. Front angles directed downward, acute. Puncturation sparse, stronger on disk and near antescutellar stria; sides and apex scarcely impunctate; surface aciculate. Antescutellar stria short, recurved toward apex, shallow, punctured, crenulate (Fig. 1); antescutellar interval plicate, slightly depressed, narrow, with some punctures and fine sulci.

Elytra flattened; suture weakly prominent. Basal ½ with large, impressed punctures, strongly aciculate, finer toward base and humeri, almost impunctate, with microsculpture and oblique shallow subhumeral stria; apical with fine punctures, aciculate. Epipleurae smooth. Marginal stria entire, regularly curved toward base.

Propygidium and pygidium impunctate, strongly alutaceous.

Prosternal keel broad, about  $2 \times 1$  longer than minimum width. Prosternal striae somewhat divergent at base, more divergent apically, parallel medially, slightly convex, finely punctured, strongly alutaceous. Mesosternum with well-marked marginal stria next to margin, interrupted at base, without sulci, not depressed, with abundant punctures and row of large punctures next to meso-metasternal suture; suture distinct, curved (Fig. 27). Metasternum not depressed, coarsely and densely punctured (similar to elytra), becoming lower and less dense on convex disk. First abdominal sternite with sparse and fine punctures. Lateral metasternal stria well impressed, punctured, widely arcuate. Meso-postcoxal stria oblique, distant from mesocoxa, recurving near mesepimeral suture. Meso-postcoxal plaque wide, alutaceous, impunctate. Mesepimeron alutaceous and impunctate, with 2 striae approximate, outer mesepimeral and lateral metasternal striae continuous (Fig. 42).

Protibiae and mesotibiae short, narrow, with short setae on edges. Metatibiae like preceding, with apical spinules.

Male genitalia not available.

Measurements. Length: 1.1 mm

Type data. Holotype & (BPBM 14636), HAWAIIAN IS: Kauai I: Kokee, 20.VIII.1923, in trunk of *Tetraplasandra* (O. H. Swezey). Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

Etymology. This species is dedicated to its collector, O. H. Swezey.

**Remarks.** This species may be separated from A. sharpi, A. lanaiensis, A. eutretus, A. scotti, and A. aldridgei by a mesosternum that is not depressed.

#### Aeletes sharpi Yélamos, new species

Figs. 2, 28, 43

**Description.** Body form oval, elongate, rather flat, testaceous, slightly bright. Antennae setose, pubescent; scape dilated apically; 1st joint of funicle slightly wider, longer than others; antennal club oval, darker than remainder of antennae.

Head finely and sparsely punctured. Eyes well developed, dark.

Pronotum broad at base and strongly narrowed at apex, flat, slightly bisinuate on sides, marginal stria almost indistinct behind head. Frontal angles directed downward, acute. Puncturation sparse, impressed, dense on disk, chiefly next to antescutellar stria; sides and apex hardly impunctate. Antescutellar stria deep, straight, long crenate (Fig. 2); antescutellar interval narrow, with abundant sulci and foveae.

Elytra flat. Zone near suture with abundant and well-marked punctures, strongly aciculate, finer and sparser apically; apical area impunctate and slightly aciculate. Elytral margins hardly impunctate. Marginal stria complete, regularly curved toward base.

Propygidium and pygidium punctulate, with shallow microsculpture.

Prosternal keel broad, short, less than 2× minimum width. Prosternal striae parallel, cariniform, with depressed rectangular space between striae, without microsculpture, with fine, sparse punctures (Fig. 28). Mesosternum with strong marginal stria near margin, interrupted at base; depressed, not wrinkled, with fine punctures. Meso-metasternal suture evanescent, on bottom of depression. Metasternum depressed on base, slightly convex on disk; basal ½ finely punctured, coarser and closer near apex where puncturation stronger, denser than that on elytra. First abdominal sternite punctured as on metasternal apex. Lateral metasternal stria strong, without punctures, slightly curved, close to meso-postcoxal stria, which is strong and distant from mesocoxa. Meso-postcoxal plaque without microsculpture, with fine and sparse punctures. Inner mesepimeral angle acute, pronounced; surface slightly alutaceous, minutely and sparsely punctured; both mesepimeral striae approximate, inner stria curved at inner side, outer stria straight, only slightly recurved at ends (Fig. 43).

Legs short, slender, small setae on edges, all similar, hind ones with 2 apical spinules, others with only 1.

Male genitalia not available.

Measurements. Length: 1.3 mm

**Type data.** Holotype ♀ (BPBM 14637), HAWAIIAN IS: Kauai I: Kokee, 11.VII.1937, in trunk of *Cyanea* (E. C. Zimmerman). Paratype ♀, same data as holotype. Holotype in BPBM collection; paratype in author's collection.

Distribution. Endemic to the Hawaiian Islands (Kauai).

Etymology. This species is dedicated to David Sharp, in recognition of his important contribution to the knowledge of the Hawaiian Islands fauna.

**Remarks.** This species may be distinguished from A. lanaiensis by the lateral metasternal stria being not arcuate and next to the meso-postcoxal stria. It may also be distinguished from A. scotti, A. aldridgei, and A. eutretus by the well-marked and cariniform prosternal striae, with depression between them.

#### Aeletes lanaiensis (Scott)

Figs. 29, 44, 87

Acritus lanaiensis Scott, 1908. Fauna Hawaiiensis, 3(5):525.

Acritus lanaiensis var. sculptilis Scott, 1908. Fauna Hawaiiensis, 3(5):525.

Aeletes lanaiensis (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

Diagnosis. Distinguished by the crenulate and straight antescutellar impression and by the cariniform prosternal striae and depressed prosternal keel (Fig. 29). Eyes slightly reduced. Aedeagus long, narrow, gradually narrowed at the apical ½; apex narrow and recurved (Fig. 87).

Measurements. Length: 1.0-1.2 mm

**Specimens examined.** Thirteen specimens were examined (5 from BMNH and 8 from BPBM). Five specimens in BMNH belong to the type series, and 4 more in BPBM (type series 10 specimens, one not found). Four specimens from BPBM are also attributed to this species. **Lectotype** and paralectotypes of *A. lanaiensis* are here designated.

Lectotype \$\, labelled (1) "Aeletes lanaiensis, Type H.S., Lanai 2–3000 ft., Perkins," (2) "Sandwich Is., 1912–215." Paralectotypes \$4\, and \$1\, \sigma\$: 1 with same data as lectotype, but with another label "Type H.S.," and 1 with same data except "Acritus lanaiensis var"; 1 specimen labelled as follows: (1) "H.S. A. lanaiensis, Lanai nr. Waipaa, about 2000 ft., Perkins 104," (2) "Fauna Hawaiiensis Collection"; 2 specimens labelled (1) "H.S. A. lanaiensis, Lanai 3000 ft., Perkins 93," (2) "Fauna Hawaiiensis Collection." Lectotype and 2 first paralectotypes in BMNH; other 3 paralectotypes in BPBM.

A **lectotype** and paralectotypes of *A.* var. *sculptilis* are also here designated. Lectotype &, labelled (1) "A. lanaiensis var. sculptilis, Lanai, Type H.S., Perkins 84," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Paralectotypes 1 \( \frac{9}{2} \) and 1 \( \sigma^2 \); labelled (1) "A. lanaiensis var. sculptilis, H.S., Lanai 2000 ft., Perkins 92," (2) "Sandwich Is., 1912–215"; and (1) "Ind. typ., Aeletes lanaiensis var. sculptilis, H.S., Perkins 91," (2) "Fauna Hawaiiensis Collection." Lectotype and first paralectotype in BMNH, other paralectotype in BPBM.

Other specimens examined. There is 1 specimen from Oahu I: Puu Palikea, June 1958, in trunk of *Lobelia* (E. J. Ford, Jr.); 1 specimen from Waianae Mts, November 1958, and 2 specimens from Mt Kaala, December 1955. Two specimens in BPBM collection; 2 more in author's collection.

Distribution. Known only from the Hawaiian Islands (Lanai and Oahu).

**Remarks.** This species may be separated from A. sharpi chiefly by the lateral metasternal stria being widely arcuate and separated from the meso-postcoxal stria (Fig. 44). It also differs from A. scotti, A. eutretus, and A. aldridgei by the cariniform prosternal striae

#### Aeletes aldridgei Yélamos, new species

Figs. 3, 45

**Description.** Body form oval, elongate, flat, dark brown, bright. Antennal joints concolorous, club lighter, pubescent, short; scape dilated apically; 1st funicle joint broad, oblong; antennal club oval.

Head impunctate. Eyes well developed.

Pronotum broad at base, strongly narrowed at apex, flat, margins not bisinuate; marginal stria complete behind head. Frontal angles directed downward, rounded. Disk punctulate, rest almost impunctate, surface with fine microsculpture. Antescutellar stria slightly marked, not crenate, recurving toward base, short, with antescutellar interval depressed, finely wrinkled (Fig. 3).

Elytra flat, suture slightly prominent. Zone near suture with some small and sparse punctures, aciculate; rest of elytra almost impunctate. Marginal stria entire, regularly curved toward base.

Propygidium and pygidium impunctate, alutaceous.

Prosternal keel broad, short, impunctate, flat; about 2× minimum width. Prosternal striae parallel, not cariniform, weakly divergent at base and at apex. Mesosternum with strong marginal

stria next to margin, interrupted at base; rather depressed on both sides of meso-metasternal suture, which is distinct, nearly straight; fine abundant wrinkles directed toward base, impunctate. Metasternum slightly depressed on base, weakly convex on disk, with minute, sparse punctures, rest impunctate. First abdominal sternite impunctate. Lateral metasternal stria widely curved, impunctate, continuous with outer mesepimeral stria on mesepimeral suture. Lateral metasternal and meso-postcoxal striae separate. Meso-postcoxal, meta-postcoxal plaques, and mesepimeron alutaceous. Mesepimeron with 2 separate striae; inner stria regularly arcuate, outer stria straight, continuous with lateral metasternal stria on mesepimeral suture; mesepimeral striae not continuous at outer side (Fig. 45).

Legs short, concolorous with body, with few setae.

Male genitalia not available.

Measurements. Length: 1.2 mm

Type data. Holotype \( \foating \), HAWAIIAN IS: Hawaii I: Olaa, November 1896 (Perkins). Scott labelled this specimen as "Acritus sp. ?" (Perkins no. 635). Deposited in BMNH.

Distribution. Known only from the Hawaiian Islands (Hawaii).

**Etymology.** This species is dedicated to R. J. W. Aldridge in recognition of his assistance to me with materials from the Natural History Museum in London.

Remarks. This species differs from A. scotti and A. eutretus mainly in the form of the antescutellar stria and in the mesosternal depression. It may also be separated from A. sharpi and A. lanaiensis by the non-cariniform prosternal striae and puncturation of metasternum and 1st abdominal sternite. This species is related to A. crenatus Wenzel from New Caledonia. The main differences are based on structure of prosternum and mesosternum.

#### Aeletes eutretus (Scott)

Figs. 46, 88

Acritus eutretus Scott, 1908. Fauna Hawaiiensis, 3(5):524.

Acritus nepos Scott, 1908. Fauna Hawaiiensis, 3(5):526, (part) (misidentification).

Aeletes eutretus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

Diagnosis. Body oval-shaped and depressed; pronotum, elytra, metasternum punctulate. Eyes well developed. Aedeagus long, narrow, strongly recurved, gradually narrowed toward apex; apex short, narrow, slightly recurved (Fig. 88).

Measurements. Length: 1.0-1.1 mm

**Specimens examined.** One specimen from type series of *A. nepos* is transferred to the present species. Eight specimens were studied, including all type series (2 from BMNH and 2 from BPBM). Another 4 undetermined from BPBM are attributed to this species. **Lectotype** and paralectotypes are here designated.

Lectotype 9, labelled (1) "Aeletes eutretus, Type H.S., Hawaii, H.S., Kilauea, Perkins 691," (2) "Sandwich Is., 1912–215." Paralectotypes 39: 1 with same data as lectotype, except "Type H.S."; 1 specimen labelled (1) "Ind. Typ. H.S., Aeletes eutretus, Hawaii, Kilauea, Perkins 531," (2) "Fauna Hawaiiensis Collection"; 1 specimen labelled as follows: (1) "H.S. Aeletes eutretus, Oahu, Mokuleiia, V.1901, Perkins 752," (2) "Fauna Hawaiiensis Collection." Lectotype and 1st paralectotype in BMNH; remaining paralectotypes in BPBM.

Other specimens examined. One specimen labelled (1) "Aeletes nepos, Kauai, Mts. Waimea, 4000 ft., VI.1894, Perkins," (2) "Fauna Hawaiiensis Collection." Deposited in BPBM.

Four specimens are determined to be this species: 2 specimens, Oahu I: Waianae Mts, in trunk of *Acacia koa*, July 1953 and November 1958; 1 specimen, Puu Hapapa, July 1959; 1 specimen, Puu Kanehoa, October 1958, in trunk of *Aleurites*. All specimens collected by E. J. Ford, Jr. Two specimens in BPBM collection; 2 in author's collection.

Distribution. Endemic to the Hawaiian Islands (Hawaii and Oahu).

**Remarks.** Related to A. scotti but may be separated from it by the outer mesepimeral stria being next to the inner one, which is not continuous with the lateral metasternal stria (Fig. 46). It may be separated from A. aldridgei by the long antescutellar stria and the mesosternal depression not being transverse.

#### Aeletes scotti Yélamos, new species

Figs. 30, 47, 89

Acritus basalis (J. L. Leconte, 1851): Scott, 1908. Fauna Hawaiiensis, 3(5):522 (misidentification).

**Description.** Body oval, elongate, flat, yellowish brown, bright. Antennae pubescent, of lighter color, especially club; scape slightly dilated apically; 1st funicle joint long; antennal club oval.

Head minutely punctured. Eyes large.

Pronotum broad at base, narrowed at apex, flat, margins slightly bisinuate; marginal stria interrupted behind head. Anterior angles directed downward, rounded. Disk coarsely and closely punctate, finer, sparser on sides, aciculate. Antescutellar stria well impressed, long, recurving toward base, crenate; antescutellar interval not depressed, with sulci and foveae.

Elytra flat, suture prominent. Area around suture strongly and densely punctate, aciculate; rest almost impunctate. Marginal stria entire, regularly recurved toward base.

Propygidium and pygidium punctulate, without microsculpture.

Prosternal keel broad, short, flat, with minute punctures, about 2× minimum width; prosternal striae parallel, slightly divergent at base and apex, not cariniform (Fig. 30). Mesosternum with marginal stria strong next to margin, interrupted at base; slightly depressed, impunctate, with shallow wrinkles; meso-metasternal suture straight, indistinct. Metasternum slightly depressed on base, convex on disk, finely punctured. First abdominal sternite impunctate. Meso-postcoxal, lateral metasternal, mesepimeral striae well impressed, marked by punctures. Meso-postcoxal stria separate from mesocoxa; lateral metasternal stria widely recurved, next to meso-postcoxal stria. Mesepimeral striae fused at outer portion; inner stria parallel to inner side, outer stria next to margin; space between mesepimeral striae very wide; outer mesepimeral stria curved next to mesepimeral suture, not continuous with lateral metasternal stria, continuous with metepisternal stria. Meso-postcoxal plaque and mesepimeron strongly alutaceous (Fig. 47).

Legs long and slender, weakly pubescent, lighter color than rest of body.

Aedeagus long, narrow; apex short and slightly recurved (Fig. 89).

Measurements. Length: 1.1 mm

**Type data.** Holotype σ, HAWAIIAN IS: Oahu I: Honolulu, determined by Scott (1908) as "A. basalis var." Allotype ♀, labelled (1) "Ae. basalis? Leg., Honolulu," (2) "G. Lewis Coll., B.M. 1926–369." Paratypes 4σ and 3♀: 2 specimens labelled as allotype; 1 specimen "Hawaiian Islands Is., Rev. T. Blackburn, 1888–30"; 1 specimen from Puu Palikea, August 1957, in *Acacia koa* (E. J. Ford, Jr.); 2 specimens with same data, except "June 1959"; 1 labelled "Aeletes basalis Lec. Id. by A.M. Lea, Blackb. Coll."; 1 labelled (1) "Aeletes basalis Lec., List 133, Hawaii," (2) "basalis Lec.," (3) "S.A. Museum specimen." Holotype, allotype, and first 3 paratypes in BMNH; following 2 specimens in BPBM; 2 specimens in author's collection and 1 in SAM.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Etymology.** This species is dedicated to Hugh Scott, author of one of the most important contributions to the knowledge of the Hawaiian histerid fauna.

Remarks. The holotype and several paratypes were determined by Blackburn and Scott to be A. basalis Leconte. After examination of the type A. basalis deposited in MCZ, it was determined that the Hawaiian Islands species is not A. basalis. The main differences are in the forms of the prosternum and the mesosternal and metasternal striae. It differs from A. eutretus in having outer mesepimeral stria very separated from the inner, continuous with the lateral metasternal stria. It may also be separated from A.

aldridgei by the antescutellar stria, which is long, and by the metasternal depression, which is not transverse.

#### Aeletes kaalae Yélamos, new species

Figs. 31, 48, 90

**Description.** Body oval, globose, convex, smooth, yellowish brown, bright, Antennae of lighter color than body, long, pubescent, scape curved dilated at apex; 1st joint of funicle long, narrow; antennal club oval.

Head minutely and sparsely punctured, with long setae. Eyes well developed.

Pronotal base broad, narrowed at apex, anterior angles not directed downward; convex, margins weakly bisinuate, marginal stria complete, even behind head; pronotal surface very smooth, bright, without microsculpture, some minute, sparse punctures. Antescutellar stria shallow, short, weakly irregular, not crenate, recurving toward base; antescutellar interval not depressed, without wrinkles.

Elytra convex, more prominent than pronotum, bright, without microsculpture, finely punctulate. Marginal stria complete, gradually recurved toward base.

Propygidium and pygidium without microsculpture, with only minute and sparse punctures. Prosternal keel about 2× minimum width; prosternal striae divergent at base, regularly curved, more divergent at apex, with prominent apical tubercle (Fig. 31). Mesosternum with fine marginal stria next to margin, interrupted at base, slightly depressed, impunctate, with some fine wrinkles; meso-metasternal suture evanescent. Metasternum slightly depressed on base, convex on disk, impunctate, without microsculpture. First abdominal sternite with only small and sparse punctures. Meso-postcoxal, lateral metasternal, and mesepimeral striae well impressed, marked by small punctures. Meso-postcoxal stria separate from mesocoxa; lateral metasternal stria weakly arcuate, next to meso-postcoxal stria, not joined with mesepimeral suture. Space between mesepimeral striae subtrapezoidal. Metepisternal stria distinct, continuous with outer mesepimeral stria (Fig. 48). Without alutaceous areas.

Legs long, slender, weakly pubescent.

Aedeagus broad, narrowed at apical ½; apex short, narrow, strongly recurved (Fig. 90).

Measurements. Length: 1.1-1.2 mm

**Type data.** Holotype σ (BPBM 14638), HAWAIIAN IS: Oahu I: Mt Kaala, 02.04.1938, in trunk of *Cibotium* (E. C. Zimmerman). Allotype ♀, same data as holotype, except found in *Pittosporum*. Paratypes 4σ and 5♀: 1 same data as holotype, except found 22.1.1917 (J. C. Bridwell), and 1 from 6.III.1938 (E. C. Zimmerman); 2 from Pahole Mts, 7.XII.1939 (D. Anderson); 1 from Haleauau Val, July 1954, in *Gouldia* (E. J. Ford, Jr.); 2 from Puu Hapapa, March 1959 (E. J. Ford, Jr.); 2 labelled only "Oahu I." Holotype, allotype, and 4 paratypes in BPBM; 1 specimen in BMNH and MCZ; 2 specimens in author's collection.

Distribution. Endemic to the Hawaiian Islands (Oahu).

Etymology. The specific name derives from Mt. Kaala (Oahu), where some specimens were found.

**Remarks.** This species differs from A. perkinsi, A. lewisi, A. longipes, and A. halaekalae mainly in length of prosternum.

#### Aeletes perkinsi (Scott)

Fig. 91

Acritus perkinsi Scott, 1908. Fauna Hawaiiensis, 3(5):529.

Aeletes perkinsi (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Distinguished by very short antescutellar impression and shallow, long prosternal keel, slightly divergent at base, but quite divergent at apex. Eyes rather reduced. Aedeagus short, broad, with apex very short and weakly recurved (Fig. 91).

Measurements. Length: 1.2 mm

**Specimens examined.** Nine specimens were studied, all from the type series, which originally contained 10 specimens. **Lectotype** and paralectotypes are here designated.

Lectotype \$\partial\$, labelled (1) "A. perkinsi, Molokai, Type H.S., Mts. 4500 ft., 29.VIII.1893, Perkins," (2) "Sandwich Is., 1912–215," (3) "Type." Paralectotypes 6\$\partial\$ and 2\$\sigma\$ (bad condition): 1 labelled (1) "A. perkinsi, H.S., Molokai highest forest, Perkins 155," (2) "Sandwich Is., 1912–215"; 2 labelled (1) "A. perkinsi, Ind. Typ., H.S., Molokai, Perkins 163," (2) "Sandwich Is., 1912–215"; 1 labelled (1) "A. perkinsi, H.S., Molokai, Perkins 163," (2) "Fauna Hawaiiensis Collection"; 2 labelled (1) "Ind. Typ., H.S., A. perkinsi, Molokai, 1893, highest forest, Perkins 155," (2) "Fauna Hawaiiensis Collection"; 2 labelled as follows: (1) "H.S. A. perkinsi, Molokai, Perkins 163," (2) "Molokai Mts., ? 4000 ft., Perkins IX.1893," (3) "Fauna Hawaiiensis Collection." Lectotype and first 3 paralectotypes in BMNH; others in BPBM.

Distribution. Known only from the Hawaiian Islands (Molokai).

**Remarks.** This species is related to A. kaalae but differs chiefly in the characteristics of the prosternum. It may also be separated from A. lewisi, A. longipes, and A. haleakalae by the elongate sulci in the mesosternal depression.

#### Aeletes lewisi Yélamos, new species

Figs. 9, 49

**Description.** Body oval-elongate, convex, yellowish brown, bright. Antennae lighter color than body, with short setae; scape dilated apically, 1st joint of funicle long, narrow; antennal club oval.

Head impunctate. Eyes very reduced, with only a few facets on medial area.

Pronotal base broad, narrowed apically, convex, margins bisinuate, marginal stria complete even behind head; surface of pronotum smooth, without microsculpture, bright. Anterior angles directed downward, rounded. Disk of pronotum punctulate. Antescutellar stria shallow, irregular, not crenate, completelly recurved, directed toward base, antescutellar interval depressed, impunctate, with some wrinkles.

Elytra convex, almost impunctate, bright, without microsculpture, broader than pronotum, somewhat parallel. Marginal stria complete, regularly curved toward base.

Propygidium and pygidium impunctate, weakly alutaceous.

Prosternal striae slightly divergent at base, strongly divergent at apex; prosternal keel 2× minimum width (Fig. 9); basal ½ flat and apical ½ directed downward. Mesosternum with slight marginal stria next to margin, interrupted at base, depressed, impunctate, without wrinkles; mesometasternal suture indistinct. Metasternum quite depressed at base; disk convex, impunctate, without microsculpture. First abdominal sternite impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae impressed, marked by punctures. Meso-postcoxal stria close to mesocoxa; lateral metasternal stria slightly arcuate, relatively close to meso-postcoxal stria; inner mesepimeral stria gradually recurved; outer mesepimeral stria recurving at inner mesepimeral, ending at outer angle (Fig. 49). Meso-postcoxal plaque and mesepimeron finely alutaceous.

Legs yellow, short; femora dilated; tibiae dilated distally; tibiae and tarsi pubescent.

Male genitalia not available.

Measurements. Length: 1.1 mm

Type data. Holotype ? (BPBM 14639), HAWAIIAN IS: Kauai I: Koholuamano, labelled "Koholuamano, Kauai, C.N. 712." Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Etymology.** This species is named in honor of George Lewis, author of many important contributions on Histeridae.

**Remarks.** This species differs from A. perkinsi by having the mesosternum depressed and smooth. It may also be separated from A. longipes and A. haleakalae mainly by having the lateral metasternal stria slightly arcuate and in the form of the prosternum.

# Aeletes longipes Sharp

Figs. 4, 50, 92

Aeletes longipes Sharp, 1885. In: Blackburn & Sharp. Trans. Roy. Dublin Soc., (2)3:129. Acritus longipes var. haleakalae Scott, 1908. Fauna Hawaiiensis, 3(5):530, (part.) (misidentification).

Acritus longipes (Sharp, 1885): Lewis, 1905. A systematic catalogue of Histeridae, p. 63.

**Diagnosis.** This species has a shallow antescutellar impression (Fig. 4), short and recurving at the ends toward the base; the antescutellar interval is slightly depressed; prosternal keel long, subparallel at the medial portion; prosternal striae slightly divergent at the base and quite divergent at the apex. Eyes well developed. Aedeagus relatively broad; apex narrow and recurved (Fig. 92).

Measurements. Length: 1.2-1.4 mm

**Specimens examined.** Eleven specimens were studied, including the holotype.

Holotype & (bad condition), labelled (1) "Aeletes longipes, Type D.S., Hawaii 4000 ft., Blackburn," (2) "Type," (3) "Sharp Coll., 1905–313." Deposited in BMNH.

Other specimens examined. One specimen in BPBM labelled "Aeletes longipes Shp., Id. by A.M. Lea, Blackb. Coll." Ten more specimens were determined as this species: 3 "Hawaiian Islands Is., Rev. T. Blackburn, 1880–30"; 3 Oahu I: Mt Kaala, March 1954, in dead tree fern fronds (E. J. Ford, Jr.); 1 same data except 2.IV.1938, in Cibotium (E. C. Zimmerman); 1 Maui I: Haleakala, 14.VI.1937, 6000–6500 ft, beating (E. C. Zimmerman); 1 labelled (1) "H.S. A. longipes Sharp var. haleakalae, Haleakala, Maui, 5000 ft., Perkins," (2) "Fauna Hawaiiensis Collection"; 1 labelled (1) "A. longipes Sharp," (2) "Hawaii, List 135," belonging to Blackburn collection. The last deposited in SAM; 7 specimens in BPBM, 2 in author's collection.

**Distribution.** Known only from the Hawaiian Islands (Hawaii, Maui, and Oahu). **Remarks.** One specimen of type series from A. longipes var. haleakalae Scott, misidentified, is transferred to this species.

This species is related to A. lewisi but differs in the form of the lateral metasternal and mesepimeral striae and form of the prosternum (Fig. 50). It may also be separated from A. haleakalae chiefly by the apical protuberance on the prosternum.

# Aeletes haleakalae (Scott) new status

Figs. 5, 10, 51

Acritus longipes var. haleakalae Scott, 1908. Fauna Hawaiiensis, 3(5):530.

Aeletes longipes var. haleakalae (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Scott (1908) separated this variety from A. longipes based on the different morphology of the antescutellar impression (Fig. 5) and the prosternum (Fig. 10). It is now elevated to species status and can be distinguished by the following characteristics: antescutellar impression shallow, short, gradually curved toward the base; antescutellar interval not depressed; prosternal striae subparallel at the medial portion, roughly similarly divergent at the base and apex; prosternum without protuberance on the apical portion. Eyes slightly reduced. Male genitalia not available.

Measurements. Length: 1.1 mm

**Specimens examined.** One specimen of the type series is excluded and transferred to *A. longipes* Sharp. The other specimen is here designated as **lectotype**.

Lectotype ♀, labelled (1) "Type H.S., A. longipes Sharp, var. haleakalae, Haleakala, Maui 5000 ft., Perkins," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." This specimen is in very bad condition. Deposited in BMNH.

Distribution. Known only from the Hawaiian Islands (Maui).

**Remarks.** This species may be separated from A. lewisi primarily by having the lateral metasternal stria widely arcuate and distant from the meso-postcoxal stria (Fig. 51); its body is oval, broad, and depressed. It may also be separated from A. longipes mainly by lack of a protuberance on the apical part of the prosternum.

Aeletes nepos (Scott)

Figs. 6, 11, 52

Acritus nepos Scott, 1908. Fauna Hawaiiensis, 3(5):526.

Acritus nepos var. Scott, 1908. Fauna Hawaiiensis, 3(5):527.

Aeletes nepos (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Distinguished by the antescutellar impression almost separated in two portions (Fig. 6), short; antescutellar interval depressed; elytra only with some fine punctures next to suture; body oval, depressed. Prosternal keel as in Fig. 11. Eyes well developed. Aedeagus long, narrow; apex long and recurved.

Measurements. Length: 1.1 mm

**Specimens examined.** One specimen is excluded and transferred to *A. eutretus*. Four other specimens from the type series were studied. **Lectotype** and paralectotype are here designated.

Lectotype &, labelled (1) "A. nepos, Type H.S., Oahu, Waianae, IV-1892, Perkins 4," (2) "Sandwich Is., 1912–215." Paralectotypes 39: 1 labelled (1) "Aeletes nepos, Type H.S., Kauai, Makaweli, 2500 ft., II-1897, Perkins 703," (2) "Type H.S.," (3) "Sandwich Is., 1912–215"; 1 labelled (1) "Aeletes nepos var.?, H.S., Molokai over 4500 ft., Perkins 159," (2) "Sandwich Is., 1912–215"; 1 labelled (1) "Ind. Typ., H.S., Aeletes nepos, Kauai, Makaweli, 2500 ft., II-1897, Perkins 703," (2) "Fauna Hawaiiensis Collection." Lectotype and 2 paralectotypes in BMNH; 1 paralectotype in BPBM.

Distribution. Endemic to the Hawaiian Islands (Molokai, Oahu, and Kauai).

**Remarks.** This species may be separated from A. blackburni and A. oahuensis mainly by having the metasternal disk punctate and the lateral metasternal stria widely arcuate (Fig. 52).

#### Aeletes blackburni Yélamos, new species

Figs. 53, 93

Description. Body oval, slightly convex, yellowish brown, bright. Antennae lighter color than body, weakly pubescent, scape dilated apically; 1st joint of funicle long, narrow; antennal club yellow.

Head impunctate. Eyes well developed.

Pronotum broad at base, narrowed apically, weakly convex, margins bisinuate; marginal stria complete, except behind head; surface punctulate, with fine microsculpture, bright. Antescutellar impression short, straight, not crenate; antescutellar interval depressed, with some wrinkles.

Elytra slightly convex, finely punctulate, bright, with fine microsculpture, broader than pronotum. Marginal stria complete, regularly curved toward base.

Propygidium and pygidium impunctate, weakly alutaceous.

Prosternal keel about 2× minimum width; prosternal striae parallel at base, quite divergent at apex, convex. Mesosternum slightly depressed, with some irregular wrinkles; marginal stria well marked, next to margin; meso-metasternal suture distinct, straight. Metasternum slightly depressed on base, convex on disk, impunctate, with fine microsculpture. First abdominal sternite impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae strongly impressed, marked by punctures. Meso-postcoxal stria near mesocoxa; lateral metasternal stria slightly arcuate, next to meso-postcoxal stria, continuous with outer mesepimeral stria; outer mesepimeral stria recurving next to mesepimeral suture; inner mesepimeral striae regularly curved; trace of stria reaching the outer margin after junction of mesepimeral striae; metepisternal stria distinct; metepisternum wide. Meso- and meta-postcoxal plaques and mesepimeron alutaceous; space between mesepimeral striae broad; mesepimeral striae marked by punctures (Fig. 53).

Legs finely pubescent, long, slender.

Aedeagus short, broad, suddenly narrowed, short, recurved at apex. Whole aedeagus slightly recurved (Fig. 93).

Measurements. Length: 1.1 mm

Type data. Holotype & (BPBM 14640), HAWAIIAN IS: Maui I: Haleakala, 18.VIII.1937, 6000-6500 ft (E. C. Zimmerman). Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Maui).

Etymology. This species is named in honor of T. Blackburn, in recognition of his important study of Hawaiian insect fauna.

Remarks. The most important characters distinguishing this species from A. oahuensis are the meso-postcoxal plaque and mesepimeron strongly alutaceous, and the distal ½ of the aedeagus broad, suddenly narrowed at the apex. It also differs from A. nepos chiefly by the antescutellar impression, which is straight and not separated into two portions. This species is well characterized by the long and slender legs.

#### Aeletes oahuensis Yélamos, new species

Figs. 32, 94

**Description.** Body oval, slightly convex, dark brown, bright. Antennae lighter color than body, very long, pubescent; scape dilated apically; 1st joint of funicle long, narrow; antennal club oval.

Head impunctate. Eyes weakly reduced.

Pronotum broader at base than apex, slightly convex, margins not bisinuate; marginal stria interrupted behind head. Surface almost impunctate, bright. Antescutellar impression shallow, formed by several irregular traces, recurved toward base at ends; antescutellar interval depressed, with some wrinkles. Anterior angles directed downward and rounded.

Elytra rather flat, impunctate, bright, gradually broader than pronotum. Marginal stria entire, curved toward base.

Propygidium and pygidium impunctate, with fine microsculpture.

Prosternal keel about 2× minimum width; prosternal striae parallel at base, quite divergent at apex; apex convex. Mesosternum slightly depressed, with faint wrinkles reaching meso-metasternal suture, distinct; marginal stria well marked, next to margin (Fig. 32). Metasternum slightly depressed on base, slightly convex on disk, impunctate. First abdominal sternite impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae well impressed, marked by close punctures. Meso-postcoxal stria distant from mesocoxa; meta-postcoxal plaque not alutaceous or bright. Lateral metasternal stria slightly arcuate, continuous with outer mesepimeral and metepisternal striae. Inner mesepimeral stria regularly curved; outer mesepimeral stria recurving at ends. Space between mesepimeral striae very narrow. Meso-postcoxal plaque and mesepimeron finely alutaceous, bright. Metepisternal stria and metepisternum distinct.

Legs finely pubescent, long, slender.

Aedeagus short, broad, regularly narrowed at distal portion, apex relatively broad, recurved (Fig. 94).

Measurements. Length: 1.0 mm

Type data. Holotype & (14641), HAWAIIAN IS: Oahu I: Waikane, 22.X.1947 (E. C. Zimmerman). Allotype &, specimen labelled "Schofield Waikane Trail, 28.IV.1938, 2500 ft., Cibotium, E.C. Zimmerman Coll." Paratype &, from Poamoho Trail (E. J. Ford, Jr.). Holotype and allotype in BPBM; 1 paratype in author's collection.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Etymology.** Previous to this study, Oahu was the only major island of the archipelago without a species of *Aeletes* dedicated to it. All specimens of the type series were found on this island.

Remarks. This species may be separated from A. blackburni by its antescutellar impression formed by several irregular traces, curved toward the base at the ends, and by a regularly narrowed distal ½ of the aedeagus.

# Aeletes neckerensis Yélamos, new species

Figs. 33, 54, 95

**Description.** Body oval, elongate, flat, yellow, bright. Antennae yellow, long, pubescent; scape recurved, dilated apically; 1st joint of funicle long, narrow; antennal club oval.

Head small, minutely punctured. Anophthalmic, with narrow ocular lobe.

Pronotum flat, finely punctured, denser on disk, obsolete on sides and apex; margins not bisinuate, marginal stria interrupted behind head; base broader than apex, anterior angles rounded, not directed downward. Antescutellar stria very short, shallow, crenulate, recurving toward base; antescutellar interval with many deep sulci.

Elytra flat, parallel; basal ½ next to suture, punctulate, aciculate; apical ½ more finely punctulate, with irregular and fine strioles, evanescent on apex and margins; marginal stria complete, regularly curved toward base.

Propygidium and pygidium without microsculpture, only finely punctulate.

Prosternal striae parallel at base, strongly divergent at apex; prosternal keel about 3× minimum width; apex convex. Mesosternum flat, marginal stria distinct, very close to margin, complete; meso-metasternal suture distinct, curved; with many deep, irregular sulci (Fig. 33). Metasternum flat on basal ¾ and convex on apical portion, with fine punctures, abundant on median part, sparser on margins. First abdominal sternite with same puncturation as metasternum. Meso-postcoxal and lateral metasternal striae strongly impressed, marked by small punctures; mesepimeral stria faint, without punctures. Meso-postcoxal stria distant from mesocoxa; lateral metasternal stria widely recurved, next to meso-postcoxal stria on mesepimeral suture, continuous with outer mesepimeral stria; inner mesepimeral stria always very close to margins, ending near meso-postcoxal stria; outer mesepimeral stria recurved; metepisternal stria distinct, not continuous with outer mesepimeral stria (Fig. 54). Meta-postcoxal and meso-postcoxal plaques and mesepimeron bright, not alutaceous, impunctate.

Legs very long, slender, with short setae.

Aedeagus long, narrow, strongly recurved at basal 1/3 apex long, recurved, very narrow (Fig. 95).

Measurements. Length: 0.9 mm

Type data. Holotype & (BPBM 14642), HAWAIIAN IS: Necker I, 11.VI.1962, in Chenopodium (J. W. Beardsley). Allotype &, same data as holotype. Both specimens in BPBM.

Distribution. Known only from Necker Island, a small island northwest of Kauai.

Etymology. The specific name refers to the type locality.

Remarks. Distinguished from A. germanus by the mesosternum not being depressed and by having deep sulci; and from A. similis, A. angustisternus, A. pulchellus, A. subbasalis, A. orioli, and A. fordi by a mesosternum with deep sulci and by general appearance. A. franzi Gomy from Australia is related to this species; A. neckerensis is distinguished from A. franzi mainly by having different mesosternum and meso-postcoxal, lateral metasternal, and mesepimeral striae.

# Aeletes germanus (Scott)

Figs. 12, 55

Acritus germanus Scott, 1908. Fauna Hawaiiensis, 3(5):523.

Aeletes germanus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species has a long prosternal keel, with prosternal striae very close together but very divergent at the apex (Fig. 12). Eyes slightly reduced. Male genitalia not available.

Measurements. Length: 1.0 mm

**Specimens examined.** The 2 specimens of the type series were studied. **Lectotype** and paralectotype are here designated.

Lectotype  $\mathcal{P}$ , labelled as follows: (1) "Type H.S., Aeletes germanus, Oahu, Kaala Mts., 2500 ft., XII.1892, Perkins 53," (2) "Type H.T.," (3) "Sandwich Is., 1912–215."

Paralectotype \$\, labelled (1) "Ind. typ., H.S., Aeletes germanus, Oahu, Mokuleiia, V.1901, Perkins 752," (2) "Fauna Hawaiiensis Collection." Lectotype in BMNH and paralectotype in BPBM.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Remarks.** This species may be separated from *A. neckerensis* by the mesosternum depressed with shallow wrinkles, mesopostcoxal plaque and mesepimeron alutaceous (Fig. 55), and eyes well developed, among other characteristics.

#### Aeletes similis (Scott)

Figs. 56, 96

Acritus similis Scott, 1908. Fauna Hawaiiensis, 3(5):527.

Aeletes similis (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

Diagnosis. Surface has large and close punctures; very long prosternum. Mesepimeron and meso-postcoxal plaque are as in Fig. 56. Eyes slightly reduced. Aedeagus long, very recurved, with apex long and slightly recurved (Fig. 96).

Measurements. Length: 1.3 mm

Specimens examined. Holotype &, labelled (1) "Aeletes similis, Type H.S., Molokai, 11-IV-1893, Perkins," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Deposited in BPBM. Distribution. Known only from the Hawaiian Islands (Molokai).

Remarks. This is the only species with both antescutellar stria and large punctures.

#### Aeletes angustisternus (Scott)

Figs. 13, 97

Acritus angustisternum Scott, 1908. Fauna Hawaiiensis, 3(5):528.

Aeletes angustisternus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:78.

**Diagnosis.** This species is distinguished by an irregular antescutellar stria curved toward the base; the prosternal striae are very long and close together, subparallel and fine (Fig. 13), with apex of prosternum directed downward. Eyes slightly reduced. Aedeagus long, weakly recurved, regularly narrowed; apex short and recurved (Fig. 97). General appearance globose.

Measurements. Length: 1.1 mm

**Specimens examined.** The 7 specimens from the type series were studied. **Lectotype** and paralectotypes are here designated.

Lectotype o', labelled (1) "Ind. Typ., H.S., A. angustisternum, Maui, Haleakala over 5000 ft., Perkins 381," (2) "Fauna Hawaiiensis Collection." Paralectotypes 3 o' and 3 \, same data as lectotype. Lectotype and 3 paralectotypes in BPBM; 3 paralectotypes in BMNH.

Distribution. Known only from the Hawaiian Islands (Maui).

**Remarks.** This species is distinguished from A. fordi and A. orioli chiefly by the form of the inner mesepimeral stria, the mesosternum with sulci, and the slightly recurved aedeagus. It may be separated from A. pulchellus and A. subbasalis by the regularly narrowed distal portion of the aedeagus.

#### Aeletes pulchellus (Scott)

Figs. 14, 98

Acritus pulchellus Scott, 1908. Fauna Hawaiiensis, 3(5):528.

Aeletes pulchellus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Distinguished by its globose appearance and by the apex of the aedeagus suddenly narrowed and short. Eyes well developed. Distal ½ of the aedeagus narrowed, with apex also narrow and recurved; aedeagus entirely recurved (Fig. 98).

Measurements. Length: 1.2-1.3 mm

**Specimens examined.** Fourteen specimens were studied, including 4 from the type series (which originally included 4 specimens) and 10 specimens identified as this species. **Lectotype** and paralectotypes here designated.

Lectotype 9, labelled (1) "A. pulchellus, Type H.S., Molokai, Perkins," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Paralectotypes 39: 1 with same data as lectotype, except "Type H.S."; 2 labelled (1) "H.S., A. pulchellus, Maui, Olinda, 4000 ft., III-1894, Perkins 112," (2) "Fauna Hawaiiensis Collection." Lectotype and first paralectotype in BMNH and the other paralectotypes in BPBM.

Other specimens examined. Three specimens determined as this species were found from Oahu I, Puu Palikea, 1 in November 1954, 1 in August 1957 in *Acacia koa*, and 1 in June 1958, in *Lobelia* (E. J. Ford, Jr.); 1 specimen labelled only "Oahu, Koebele," and 1 specimen from Mt Kaala, December 1955, 5 specimens labelled only "Oahu I, Mts Waianae." Five specimens in BPBM and 5 in author's collection.

Distribution. Endemic to the Hawaiian Islands (Maui, Molokai, and Oahu).

**Remarks.** This species may be separated from A. subbasalis by the prosternal striae parallel at the apex (Fig. 14) and by its general globose appearance. It also differs from A. angustisternus, A. orioli, and A. fordi by the flat prosternum, form of the inner mesepimeral stria, and suddenly narrowed apex of the aedeagus.

# Aeletes subbasalis (Scott)

Figs. 15, 57, 99

Acritus subbasalis Scott, 1908. Fauna Hawaiiensis, 3(5): 523.

Aeletes subbasalis (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a: 79.

**Diagnosis.** Distinguished by the prosternal striae being long, cariniform, and slightly divergent at the base and apex (Fig. 15). Mesepimeron and meso-postcoxal plaque as in Fig. 57. Eyes well developed. Apex of the aedeagus long, narrow, and recurved (Fig. 99).

Measurements. Length: 1.0-1.1 mm

**Specimens examined.** Twelve specimens were studied, 9 from the type series (type series 9 specimens) and 3 specimens determined as this species. **Lectotype** and paralectotypes are here designated.

Lectotype & (BPBM 14643), labelled (1) "H.S. Aeletes subbasalis, Oahu, Mts. nr. Honolulu, VIII.1900, Perkins 785," (2) "Fauna Hawaiiensis Collection." Paralectotypes 5\footnote{9} and 3\sightarrow{3}\cdot{6} with same data as lectotype; 1 labelled (1) "Aeletes subbasalis, Oahu Mts., Nr. Waipaa about 2000 ft., Perkins 104," (2) "Sandwich Is. 1912–215"; 1 labelled (1) "Aeletes subbasalis, H.S. Scott, Waianae mountains, Honolulu, Sharp Coll." Lectotype and 4 paralectotypes in BPBM; 4 paralectotypes in BMNH.

Other specimens examined. Three specimens determined as this species; 1 found in Mt Kaala, December 1955; 1 in Puu Kanehoa in October 1958; and 1 in Waianae Mts on *Aleurites* in October 1958 (E. J. Ford, Jr.). Two specimens in BPBM and 1 in author's collection.

Distribution. Known only from the Hawaiian Islands (Oahu and Lanai).

**Remarks.** This species is distinguished from A. pulchellus by the oval depressed form of the body as well as the long and narrow form of the aedeagus. It may be separated from A. angustisternus, A. orioli, and A. fordi by the flat prosternum.

#### Aeletes orioli Yélamos, new species

Figs. 7, 16, 58, 100

**Description.** Body oval, rather convex, dark brown, bright. Antennae pubescent, long; scape long, recurved, weakly dilated; antennal club oval.

Head impunctate, with a few setae. Eyes well developed.

Pronotum broad at base, rather narrow at apex, weakly convex, margins rather bisinuate; marginal stria entire even behind head; surface with fine, sparse punctures on disk, with faint microsculpture. Antescutellar stria long, well impressed, hardly reaching base, recurved toward base, crenulate (Fig. 7); antescutellar interval slightly depressed, sulci shallow.

Elytra broad, weakly convex, punctulate near suture, microsculpture fine. Marginal stria complete, regularly curved toward base.

Propygidium and pygidium strongly alutaceous, impunctate.

Prosternum directed downward apically. Prosternal keel about 3.5× minimum width; prosternal striae divergent at base, parallel, almost indistinct at apical deflexed zone (Fig. 16); space between striae flat.

Mesosternum depressed, with few shallow wrinkles; marginal stria well marked, next to margin; meso-metasternal suture faint, curved. Metasternum slightly depressed on base, convex on disk; disk punctulate. First abdominal sternite impunctate. Meso-postcoxal stria close to mesocoxa; lateral metasternal stria widely arcuate, not crenulate; mesepimeral striae widely separated; space between mesepimeral striae and meso-postcoxal plaque strongly alutaceous (Fig. 58).

Legs slightly pubescent, thin.

Aedeagus curved, narrow, long; regularly narrowed toward distal part; apex relatively broad, short, slightly recurved (Fig. 100).

Measurements. Length: 1.2 mm

Type data. Holotype & (BPBM 14644), HAWAIIAN IS: Kauai I: Kaunuohua Ridge, 21.VII.1937, beating (E. C. Zimmerman). Allotype \$\partial\$: S Mohihi Ridge, 8.VII.1937 (E. C. Zimmerman). Both in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Etymology.** This species is dedicated to my son Oriol, who even in his tender years was already familiar with and interested in beetles.

**Remarks.** This species may be separated from A. angustisternus by the form of the inner mesepimeral stria. It is related to A. fordi but differs in its oval and convex body.

#### Aeletes fordi Yélamos, new species

Figs. 8, 101

**Description.** Body oval-elongate, very depressed; yellowish brown color, bright. Antennae yellow, pubescent; scape recurved, dilated distally; 1st joint of funicle long; antennal club oval.

Head finely punctured. Eyes well developed.

Pronotum slightly convex, punctulate, closer on disk; apex and sides almost impunctate; margins bisinuate, marginal stria interrupted behind head; base broad, apex narrowed; anterior angles directed downward, rounded. Antescutellar stria long, straight, crenulate, shallow (Fig. 8); antescutellar interval narrow, sulci abundant.

Elytra quite flat, suture prominent. Surface near suture punctulate, rest of surface almost impunctate. Marginal stria very curved, complete.

Propygidium and pygidium impunctate, alutaceous.

Prosternal keel about 3× minimum width; prosternal striae slightly divergent at base, otherwise parallel; basal ½ of prosternum flat, apical ½ directed downward. Mesosternum slightly depressed on base, flat or slightly convex on disk, punctures sparse. First abdominal sternite small, impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae faint, marked by fine punctures. Meso-postcoxal stria close to mesocoxa; lateral metasternal stria widely arcuate, ending at outer angle, next to outer mesepimeral and metepisternal striae. Inner mesepimeral stria close to margin, angle acute next to inner angle; outer mesepimeral stria distant from inner stria, widely arcuate. Meso-postcoxal plaque and space between mesepimeral striae strongly alutaceous. Metepisternum very narrow.

Legs short, fine, weakly pubescent.

Aedeagus narrow, long, strongly recurved at middle; distal ½ gradually narrowed, apex short, narrow (Fig. 101).

Measurements. Length: 1.0 mm

Type data. Holotype & (BPBM 14645), HAWAIIAN IS: Oahu I: Waianae Mts, August 1953, in *Acacia koa* (E. J. Ford, Jr.). Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Etymology.** This species is dedicated to its collector and my friend, E. J. Ford, Jr., who collected most of the material under review.

**Remarks.** This species shows the same distinctive characteristics as A. orioli but is easily distinguished from it by the elongate and depressed body.

#### Aeletes subrotundus (Scott)

Figs. 59, 102

Acritus subrotundus Scott, 1908. Fauna Hawaiiensis, 3(5):533.

Aeletes subrotundus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species is part of a small group of species including A. confusus, A. solitarius, and A. flavitarsis and is distinguished by the lack of antescutellar stria, eyes very reduced, elytra fused, meso-postcoxal plaque and mesepimeron not alutaceous (Fig. 59), abdominal sternites very reduced, incurved, and placed inside the 1st sternite; body very convex and globose; length 0.8 mm or less. Aedeagus strongly recurved; basal portion narrower than distal ½ (Fig. 102).

Measurements. Length: 0.8 mm

**Specimens examined.** Four specimens were studied, including all 3 from the type series. **Lectotype** and paralectotypes are here designated. Both paralectotypes were syntypes of *A. flavitarsis*, transferred by Scott (op. cit.) to this species.

Lectotype \( \foatharmal{P}, \) labelled (1) "Aeletes subrotundus, Type H.S., Oahu: back of Tantalus, Perkins 781," (2) "Sandwich Is., 1912–215," (3) "Type H.S." Paralectotypes 2\( \foatharmal{P}, \) both on same card: (1) "Acritus subrotundus, Scott det., Hawaiian Islands Is., Blackburn," (2) "Hawaiian Islands Is., Rev. T. Blackburn 1880–80." Deposited in BMNH.

Other specimens examined. One specimen determined as this species, labelled (1) "List 138, Aeletes flavitarsis Lew., Hawaii," (2) "flavitarsis Lewis," (3) "S.A. Museum Specimen." Deposited in SAM.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Remarks.** This species is easily distinguished from the rest by having no lateral metasternal stria and very faint mesepimeral stria; color yellowish brown, sutures darker.

#### Aeletes confusus (Blackburn), n. comb.

Fig. 60

Bacanius confusus Blackburn, 1885. Trans. Roy. Dublin Soc., (2)3:129.

**Diagnosis.** Species has same general characteristics as A. subrotundus. It is the only punctured species of the subrotundus/confusus/solitarius/flavitarsis group with fused elytra. Eyes very reduced. Male genitalia not available.

Measurements. Length: 0.8 mm

Specimens examined. Holotype ♀, labelled (1) "Type," (2) "Hawaiian Islands Is., Rev. T. Blackburn, 1888–30." Deposited in BMNH.

**Distribution.** Known only from the Hawaiian Islands. Although the label does not state the island, in the original description Blackburn mentions Oahu (Blackburn & Sharp 1885).

**Remarks.** Examination of the holotype in this study verifies its erroneous inclusion in the genus *Bacanius*. It does not have any characteristics of that genus. Possibly the globose form and residues on the prosternum were responsible for Blackburn's placement of this species in *Bacanius*.

This species may be separated from A. subrotundus by the distinct lateral metasternal and mesepimeral striae (Fig. 60). It differs from A. solitarius and A. flavitarsis by a mesosternum that is not depressed.

# Aeletes solitarius (Scott)

Figs. 34, 61, 103

Acritus solitarius Scott, 1908. Fauna Hawaiiensis, 3(5):532.

Aeletes solitarius (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

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**Diagnosis.** This species has the same general characteristics as *A. subrotundus*. Normally has 4 or 5 facets on the ocular lobes. Pro-, meso-, and metasternal regions as in Fig. 34. Aedeagus strongly recurved; apex short, slightly recurved, and suddenly truncate.

Measurements. Length: 1.0 mm

Specimens examined. Three specimens were studied, including the holotype.

Holotype 9, labelled as follows (1) "Aeletes solitarius, Type H.S., Oahu, back of Tantalus, VI-1901, Perkins 781," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Deposited in BMNH.

Other specimens examined. Two undetermined specimens in BPBM, from Kauai: N.W. Alakai, Swamp, 9.VII.1937 (E. C. Zimmerman). One specimen in BPBM and another in author's collection

Distribution. Endemic to the Hawaiian Islands (Oahu and Kauai).

**Remarks.** This species is distinguished from A. subrotundus by the presence of lateral metasternal and mesepimeral striae (Fig. 61). It differs from A. confusus by its impunctate surface and from A. flavitarsis by the form of the lateral metasternal and mesepimeral striae and by the aedeagus (Fig. 103).

#### Aeletes flavitarsis Lewis

Fig. 62

Aeletes flavitarsis Lewis, 1879. Ent. Month. Mag., 16:79.

Acritus flavitarsis (Lewis, 1879): Lewis, 1905. A Systematic Catalogue of Histeridae, p. 62. Diagnosis. This species has the same general characteristics as A. subrotundus. Eyes very reduced. Aedeagus strongly recurved; basal ½ narrowed; apex not truncate.

Measurements. Length: 0.8 mm

Specimens examined. The number of specimens was not recorded by Lewis (1879), but according to Scott (1908) there were 3 syntypes, 2 of them belonging to A. subrotundus. The **lectotype** is here designated from the only remaining specimen from the type series; in the BMNH there is one pin only with the labels.

Lectotype o', labelled as follows: (1) "Aeletes flavitarsis Lewis, Hawaiian Islands Is., Blackburn," (2) "Sharp Coll., 1905–313." This specimen was studied and remounted by Scott. Deposited in BMNH.

**Distribution.** The original description cited "Honolulu," although there is no reference to the specific geographical place on the labels of either specimen. It is endemic to the Hawaiian Islands (Oahu).

**Remarks.** This species is related to *A. solitarius* but is distinguished by the lateral metasternal and mesepimeral striae (Fig. 62) and by the character of the aedeagus. It may be separated from *A. confusus* by the depressed mesosternum and the impunctate surface.

# Aeletes espanoli Yélamos, new species

Figs. 35, 63, 104

**Description.** Body regularly oval, rather convex, brown, bright. Antennae long, pubescent, yellow; scape recurved, dilated distally; 1st joint of funicle rather long; antennal club oval.

Head impunctate, without frontal suture. Eyes with varying degrees of reduction.

Pronotum rather convex, bright, apical angles directed downward, rounded; margins slightly bisinuate; marginal stria faint behind head; base broad, apex narrow; only a few minute, sparse punctures.

Elytra convex, bright, only a few minute punctures.

Propygidium and pygidium impunctate, without microsculpture.

Prosternal striae slightly divergent at base, rest subparallel; these striae strongly marked, not reaching anterior margin at apex; prosternal keel slightly convex, curved longitudinally, a few punctures on apex. Mesosternum flat or slightly convex, minute, sparse punctures; marginal stria

marked, interrupted at base; meso-metasternal suture distinct, curved. Metasternum and 1st abdominal sternite impunctate, slightly convex (Fig. 35). Meso-postcoxal, lateral metasternal, and mesepimeral striae well impressed, marked by fine punctures; meta-postcoxal plaque not alutaceous; meso-postcoxal plaque and mesepimeron finely alutaceous; lateral metasternal stria somewhat arcuate, continuous with outer mesepimeral stria next to base of metepisternal stria. Metepisternal stria faint (Fig. 63).

Legs long, slender, setose.

Aedeagus short, relatively broad, recurved; apex very short, slightly recurved (Fig. 104).

Measurements. Length: 1.1 mm

**Type data.** Holotype & (BPBM 14646), HAWAIIAN IS: Kauai I: Mohihi Ridge, 8.VII.1937 (E. C. Zimmerman). Allotype \$\partial\$, same data as holotype. Paratypes \$\partial\$ and \$2\pi\$, same data as holotype. Holotype, allotype, and 2 paratypes deposited in BPBM; 1 paratype each in BMNH and MZ; 2 paratypes in author's collection.

Distribution. Endemic to the Hawaiian Islands (Kauai).

**Etymology.** I am pleased to dedicate this species to my teacher in entomology, Francesc Español, one of the most outstanding Spanish entomologists.

**Remarks.** This species is distinguished by the prosternal striae, which are somewhat divergent at the base and then parallel, strongly impressed.

#### Aeletes zimmermani Yélamos, new species

Figs. 17, 64, 105

**Description.** Body regularly oval, convex, brown, bright. Antennae long, yellow, pubescent, scape dilated apically, curved; 1st joint of funicle long; antennal club oval.

Head minutely punctured, without frontal suture. Eyes weakly reduced.

Pronotum convex, narrowed apically, broad at base; apical angles directed downward, acute; margins slightly bisinuate, marginal stria faint behind head; minutely punctured.

Elytra broader, more convex than pronotum, nearly impunctate.

Propygidium and pygidium almost impunctate, without microsculpture. Pygidium quite convex.

Prosternal keel higher 3× minimum width; prosternal striae divergent at base and apex, approximate at medial portion; apex protuberant (Fig. 17). Mesosternum flat or somewhat convex, impunctate, marginal stria distinct, interrupted at base; meso-metasternal suture distinct, widely curved. Metasternum and 1st abdominal sternite slightly convex, impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae strong, marked by punctures; meso-postcoxal plaque and space between mesepimeral striae slightly alutaceous, remaining surface smooth; lateral metasternal stria widely arcuate; both mesepimeral striae close together; outer mesepimeral stria continuous with metepisternal stria; metepisternum wide (Fig. 64).

Legs long, thick, pubescent; tarsi long, pubescent.

Aedeagus weakly curved, very short, relatively broad, narrowed at distal  $\frac{1}{2}$ ; apex long, very recurved (Fig. 105).

Measurements. Length: 1.1 mm

Type data. Holotype & (BPBM 14647), HAWAIIAN IS: Kauai I: Mts Waimea, corresponding to no. 273 from Perkins, May 1894. Allotype &, NW Alakai, Swamp, 9.VII.1937 (E. C. Zimmerman). Both in BPBM.

Distribution. Endemic to the Hawaiian Islands (Kauai).

**Etymology.** Named in honor of E. C. Zimmerman, who collected much of the present material.

**Remarks.** This species may be separated from A. mohihiensis mainly by the length of the prosternum. It differs from A. kilaueae, A. waianaae, and A. monticola by a mesosternum that is not depressed.

# Aeletes mohihiensis Yélamos, new species

Figs. 18, 65

**Description.** Body oval, convex, yellowish brown, bright. Antennae long, yellow, pubescent, scape dilated apically, curved; antennal club oval.

Head impunctate, without frontal suture; eyes slightly reduced.

Pronotum weakly convex, anterior angles narrowed, acute, directed downward, broad at base; margins rather bisinuate; marginal stria faint behind head; surface smooth, without punctures or microsculpture.

Elytra regularly narrowed, broader, more convex than pronotum, impunctate; marginal stria regularly recurved toward base.

Propygidium and pygidium impunctate, finely alutaceous.

Prosternal striae slightly divergent at base, close together and parallel at medial portion, divergent at apex; prosternal keel about 2.5× minimum width (Fig. 18). Mesosternum flat, impunctate; meso-metasternal suture distinct; marginal stria distinct, interrupted at base. Metasternum and 1st abdominal sternite convex, impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae strong, marked by punctures; meso-postcoxal plaque and space between mesepimeral striae slightly alutaceous, remaining surface smooth. Lateral metasternal stria widely arcuate, coinciding on mesepimeral suture with outer mesepimeral and metepisternal striae (Fig. 65).

Legs very long, pubescent; tarsi long, very pubescent.

Male genitalia not available.

Measurements. Length: 1.1 mm

Type data. Holotype ♀ (BPBM 14648), HAWAIIAN IS: Kauai I: S Mohihi Ridge, 8.VII.1937 (E. C. Zimmerman). Deposited in BPBM.

Distribution. Endemic to the Hawaiian Islands (Kauai).

Etymology. The specific name derives from the type locality.

**Remarks.** This species is distinguished from A. zimmermani chiefly by the form of the prosternum, and from A. kilaueae, A. waianaae, and A. monticola by a mesosternum that is not depressed.

# Aeletes kilaueae Yélamos, new species

Figs. 19, 66, 106

**Description.** Body oval, slightly convex, yellowish brown, bright. Antennae long, yellow, very pubescent, scape curved, weakly dilated at apex; antennal club oval.

Head with minute punctures, pubescent, without frontal suture. Eyes reduced.

Pronotum slightly convex; anterior angles narrowed, directed downward, acute; base broad; margins bisinuate; marginal stria faint behind head; surface without punctures or microsculpture.

Elytra broader than pronotum, subparallel, flat, impunctate; marginal stria curved toward base.

Propygidium and pygidium with minute, sparse punctures; without microsculpture.

Prosternal striae slightly curved in their entirety, more divergent at apex than at base; prosternal keel about  $2.5\times$  minimum width, with very prominent apical tubercle (Fig. 19). Mesosternum impunctate, slightly depressed; meso-metasternal suture faint; marginal stria distinct, interrupted at base. Metasternum and 1st abdominal sternite convex, impunctate. Meso-postcoxal, lateral metasternal, and mesepimeral striae not marked by punctures; space between mesepimeral striae slightly alutaceous; meso-postcoxal plaque not alutaceous; outer mesepimeral stria continuous with metepisternal stria; lateral metasternal stria widely arcuate (Fig. 66).

Legs very long; femora dilated; tarsi long, very pubescent.

Aedeagus short, broad, slightly recurved; apex long, very recurved, narrow (Fig. 106).

Measurements. Length: 1.2 mm

Type data. Holotype & (BPBM 14649), HAWAIIAN IS: Hawaii I: Kilauea, 24.II.1918 (O. H. Swezey). Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Hawaii).

Etymology. The specific name derives from the type locality.

**Remarks.** This species may be distinguished from A. waianaae and A. monticola by the shallow mesosternal depression and by the form of the prosternum. It differs from A. zimmermani and A. mohihiensis by the depressed mesosternum.

#### Aeletes waianaae (Scott)

Figs. 20, 67

Acritus waianaae Scott, 1908. Fauna Hawaiiensis, 3(5):522.

Aeletes waianaae (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Prosternal striae long and subparallel, prosternal keel about  $3 \times$  longer than its minimum width, without apical prosternal tubercle (Fig. 20). Eyes well developed. Male genitalia not available.

Measurements. Length: 1.0 mm

**Specimens examined.** The 2 specimens from the type series were studied. The **lectotype** and the paralectotype are here designated.

Lectotype  $\mathfrak{P}$ , labelled (1) "Aeletes waianaae, Type H.S., H. Scott; Waianae mountains, Honolulu," (2) "Type H.S.," (3) "Sharp Coll., 1905–313." Paralectotype  $\mathfrak{P}$ , labelled (1) "Cotype H.S., Aeletes waianaae, Waianae Mts., Oahu, IV.1892, Perkins 12," (2) "Fauna Hawaiiensis Collection." Lectotype in BMNH and paralectotype in BPBM.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Remarks.** This species is related to A. monticola but is distinguished by the form of the lateral metasternal stria (Fig. 67) and by its general appearance. It may be separated from A. kilaueae by the deeper mesosternal depression.

#### Aeletes monticola Blackburn

Figs. 21, 68, 107

Aeletes monticola Blackburn, 1885. Trans. Roy. Dublin Soc., (2)3:130.

Acritus monticola (Blackburn, 1885): Lewis, 1905. A systematic catalogue of Histeridae, p. 63.

**Diagnosis.** This species has the same general characteristics as *A. waianaae*. Prosternal keel as in Fig. 21. Mesepimeron and meso-postcoxal plaque as in Fig. 68. Eyes well developed. Aedeagus strongly recurved, very narrow, and long; apex long and recurved (Fig. 107). Surface of females strongly aciculate.

Measurements. Length: 1.5 mm

Specimens examined. Four specimens were studied, the holotype and 3 specimens previously examined by Scott.

Holotype \$\, labelled (1) "A. monticola, Type, Hawaiian, Rev. Blackburn, 1888–30," (2) "Type." Deposited in BMNH. Though Blackburn (Blackburn & Sharp 1885:130) described this species as from "Haleakala, Maui, at an elevation of at least 5000 feet," the label does not refer to the locality.

Other specimens examined. One specimen labelled (1) "Ind. typ. H.S., A. monticola Blackburn, Maui, Haleakala, over 5000 ft., Perkins 128," (2) "Fauna Hawaiiensis Collection." Deposited in BPBM; 2 specimens labelled as follows: (1) "A. monticola var., H.S., Maui, Haleakala, 5000 ft., X-1896, Perkins 661," (2) "Sandwich Is., 1912–215"; and (1) "A. monticola var., H.S., Maui. Haleakala, over 5000 ft., 18-III-1894, Perkins 121," (2) "Sandwich Is., 1912–215." Both in BMNH. These specimens show few differences from the holotype.

Distribution. Known only from the Hawaiian Islands (Maui).

**Remarks.** This species may be distinguished from related species by the characteristics already listed for A. waianaae.

#### Aeletes concentricus Sharp

Figs. 22, 69

Aeletes concentricus Sharp, 1885. Trans. Roy. Dublin Soc., (2)3:130.

Acritus concentricus (Sharp, 1885): Lewis, 1905. A systematic catalogue of Histeridae, p. 62.

Diagnosis. Pronotum and elytra with fine strioles or scratches, being nearly longitudinal on the prosternum and on the base of the elytra, curved inward toward the suture on the medial part of the elytra, becoming transverse apically. Body oval, elongate, Prosternal keel as in Fig. 22.

the prosternum and on the base of the elytra, curved inward toward the suture on the medial part of the elytra, becoming transverse apically. Body oval, elongate. Prosternal keel as in Fig. 22. Mesepimeron and meso-postcoxal plaque as in Fig. 69. Eyes well developed. Male genitalia not available.

Measurements. Length: 1.0 mm

Specimens examined. Two specimens were studied, including the holotype.

Holotype ♀, labelled (1) "Aeletes concentricus, Type D.S., Honolulu, Blackburn," (2) "Type D.S.," (3) "Sharp Coll., 1905–313." Deposited in BMNH.

Other specimens examined. One specimen assigned to this species from Kauai I: Milolii, 8.VII.1920, in Acacia koa (O. H. Swezey). Deposited in BPBM.

**Distribution.** This is possibly the most typical species from the Hawaiian Islands. Endemic to the Hawaiian Islands (Oahu and Kauai).

#### Aeletes insolitus (Scott)

Fig. 108

Acritus insolitus Scott, 1908. Fauna Hawaiiensis, 3(5):532.

Aeletes insolitus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This is the only Hawaiian Aeletes with a longitudinal meso-metasternal depression and with the aedeagus strongly recurved. Eyes well developed. Aedeagus strongly recurved, flat, broad and short; apex slightly curved (Fig. 108).

Measurements. Length: 1.0 mm

Specimens examined. The holotype and 1 other specimen were studied.

Holotype &, labelled (1) "Aeletes insolitus, Type H.S., Kauai, Halemanu 4000 ft., VI-1895, Perkins 504," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Deposited in BMNH.

Other specimens examined. One specimen labelled (1) "Aeletes concentricus," (2) "Hawaiian Is., Rev. T. Blackburn, 1888–30." Deposited in BMNH.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Remarks.** Aeletes leai Gomy from Fiji also has a longitudinal depression on mesosternum, but it has a distinctive conformation of the prosternum and metasternal striae. Aeletes leai differs from the Hawaiian species by characters of the mesosternum, metasternum, and aedeagus.

# Aeletes sculptus (Scott)

Figs. 70, 109, 124

Acritus sculptus Scott, 1908. Fauna Hawaiiensis, 3(5):520.

Aeletes sculptus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Well distinguished by its elongate, parallel, and convex appearance and impunctate 1st abdominal sternite; the base of the prosternum, elytra, mesosternum, and metasternum are closely punctate. Mesepimeron and meso-postcoxal plaque as in Fig. 70. Eyes well developed. Aedeagus rather recurved; apex long, broad, and recurved (Fig. 109).

Measurements. Length: 1.2 mm

**Specimens examined.** Five specimens were studied, from the type series that originally consisted of 6 specimens and another undetermined specimen. **Lectotype** and paralectotypes are here designated.

Lectotype &, labelled "H.S. A. sculptus, Molokai, 9-VI-1893, Perkins 179." Paralectotypes 49: 1 labelled (1) "A. sculptus, Type H.S., Molokai, Perkins 196," (2) "Type H.T.," (3) "Sandwich Is., 1912–215"; 1 labelled (1) "A. sculptus, H.S., Molokai, 4000 ft., 27-V-1893, Perkins 191," (2) "Sandwich Is., 1912–215"; 1 labelled (1) "Ind. typ., H.S., A. sculptus, Molokai, Perkins 196"; 1 labelled (1) "Aeletes sculptus H.S., Molokai, Perkins 196." Lectotype and the two last paralectotypes in BPBM; other paralectotypes in BMNH.

Other specimens examined. One specimen labelled only "Molokai I." In author's collection. Distribution. Known only from the Hawaiian Islands (Molokai).

**Remarks.** This species forms a small group together with A. makaweliae. It may be distinguished from the latter chiefly by the closely foveate surface.

#### Aeletes makaweliae (Scott)

Figs. 71, 110

Acritus makaweliae Scott, 1908. Fauna Hawaiiensis, 3(5):521.

Aeletes makaweliae (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species has the same general characteristics as *A. sculptus*. Mesepimeron and meso-postcoxal plaque as in Fig. 71. Eyes well developed. Aedeagus rather recurved; apex short, narrow, and recurved (Fig. 110).

Measurements. Length: 1.0 mm

**Specimens examined.** Seven specimens were studied, all from the type series, which originally consisted of 8 specimens. **Lectotype** and paralectotypes are here designated.

Lectotype  $\sigma$ , labelled (1) "Aeletes makaweliae, Type H.S., Kauai, Makaweli 2500 ft., Perkins 668," (2) "Type H.T.," (3) "Sandwich Is., 1912–215." Paralectotypes  $4\sigma$  and 2 same data as lectotype, except "Type H.S." Lectotype and 2 paralectotypes in BMNH; 4 paralectotypes in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Remarks.** This species may be separated from A. sculptus mainly by the punctate, not foveate, surface.

### Aeletes mauiae (Scott)

Fig. 72

Acritus mauiae Scott, 1908. Fauna Hawaiiensis, 3(5):519.

Aeletes mauiae (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Prosternum short, divergent at the base and apex; surface strongly and densely punctate; large in size. Mesepimeron and meso-postcoxal plaque as in Fig. 72. Eyes well developed. Aedeagus long, strongly recurved.

Measurements. Length: 1.5 mm

**Specimens examined.** The 2 specimens from the type series were studied. Moreover, 2 undetermined specimens from BPBM are determined as this species. **Lectotype** and paralectotype are here designated.

Lectotype \( \foats, \) labelled (1) "Aeletes mauiae, Type H.S., Maui, Haleakala, over 4800 ft., V-1896, Perkins 601," (2) "Type H.T.," (3) "Sandwich Is., 1912–215" (specimen in bad condition). Paralectotype \( \foats, \) same data as lectotype except "Cotype" and "Perkins 599." Lectotype in BMNH and paralectotype in BPBM.

Other specimens examined. Two more specimens labelled only "Maui I, Haleakala." One in BPBM and the other in author's collection.

Distribution. Endemic to the Hawaiian Islands (Maui).

**Remarks.** This species, together with A. kukuiae, A. punctatus, and A. fuscus, form a distinct group. It differs from the other species by having the apical part of the prosternum convex and pygidium punctulate.

# Aeletes kukuiae (Scott)

Figs. 73, 111

Acritus kukuiae Scott, 1908. Fauna Hawaiiensis, 3(5):519.

Aeletes kukuiae (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species has the same general characteristics as *A. mauiae*. Mesepimeron and meso-postcoxal plaque as in Fig. 73. Eyes well developed. Aedeagus very recurved; distal part suddenly narrowed; apex long, recurved, very narrow (Fig. 111).

Measurements. Length: 1.5 mm

**Specimens examined.** The 3 specimens from the type series were studied, as well as another undetermined specimen. **Lectotype** and paralectotypes are here designated.

Lectotype &, labelled (1) "Aeletes kukuiae, Type H.S., Oahu, IV-1892, Waianae, Perkins 7," (2) "Type H.T.," (3) "Sandwich Is., 1912–215." Paralectotypes & and &, same data as lectotype, except "Type H.S." and "Ind. typ." Lectotype and 1 paralectotype in BMNH; other paralectotype in BPBM.

Other specimens examined. One specimen from Mt. Tantalus, 7.IV.1906, collected to 1200 ft. (W. M. Giffard). Deposited in BPBM.

Distribution. Endemic to the Hawaiian Islands (Oahu).

**Remarks.** This species may be distinguished from A. mauiae mainly by not having the apical part of the prosternum convex. It differs from A. punctatus and A. fuscus by having punctulate, not alutaceous, propygidium and pygidium.

## Aeletes punctatus (Scott)

Figs. 74, 112

Acritus punctatus Scott, 1908. Fauna Hawaiiensis, 3(5):520.

Aeletes punctatus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Forms a group with A. mauiae, A. kukuiae, and A. fuscus. Eyes well developed. Aedeagus very recurved, broad; distal part gradually narrowed; apex narrow, short, and slightly recurved (Fig. 112).

Measurements. Length: 1.6-1.8 mm

**Specimens examined.** Fifteen specimens from the type series were studied (type series 17 specimens, after Scott). **Lectotype** and paralectotypes are here designated.

Lectotype & labelled (1) "Makaweli, Kauai, 2500 ft., II-1897," (2) "Sandwich Is., 1912–215." Paralectotypes 6? and 8&: 2 with same data as lectotype; 9 with same data as lectotype except "Perkins 703"; 2 labelled (1) "Aeletes punctatus, Kauai, Mts. Waimea, V-1894, Perkins 273," (2) "Sandwich Is., 1912–215"; 1 with same data, but without the second label. Lectotype and 6 specimens in BMNH; 8 specimens in BPBM.

Distribution. Endemic to the Hawaiian Islands (Kauai).

**Remarks.** Related to *A. fuscus* but distinguished mainly by having the apex of the aedeagus narrow and gradually narrowed at the end, also by the distinct metepisternal stria (Fig. 74). It differs from *A. kukuiae* by the strongly alutaceous propygidium and pygidium.

# Aeletes fuscus Yélamos, new species

Figs. 23, 75, 113, 123

**Description.** Body oval-elongate, globose; dark brown, dull due to abundant microsculpture (Fig. 123). Antennae long; scape long, recurved, dilated distally, pubescent; antennal club light, very pubescent.

Head impunctate, with abundant microsculpture, glabrous; frontal suture well impressed. Eyes not reduced.

Pronotum convex, anterior angles directed downward; margins bisinuate, marginal stria distinct behind head; base broad, apex narrowed; disk with fine punctures, finer and impunctate apically and laterally; surface with dense, strong microsculpture.

Elytral base broader than pronotum, narrowed apically, convex, suture prominent. Traces of oblique striae on humeri. Marginal stria complete, slightly curved toward base. Sides almost impunctate; rest coarsely and closely punctate, with abundant microsculpture, especially on apical ½; punctures coalescent, like irregular striae, on sutural and apical zones.

Propygidium and pygidium convex, very close and strong microsculpture, a few sparse punctures.

Prosternal keel length less than 2× minimum width; prosternal striae slightly divergent at base and apex (Fig. 23), parallel on rest; space between these striae flat or slightly convex, with a few fine sparse punctures, microsculpture strong. Mesosternum flat, marginal stria very impressed, next to margin, interrupted at base; coarsely and closely punctured, with abundant microsculpture; meso-metasternal suture regularly curved, finely impressed. Metasternum with puncturation stronger, denser than elytral stria, except on disk; disk convex, more finely punctured. First abdominal sternite like metasternum. Meso-postcoxal stria distant from mesocoxa. Lateral metasternal stria arcuate, punctures abundant, next to end of outer mesepimeral stria on mesepimeral suture; both mesepimeral striae regularly arcuate, approximate; space between mesepimeral striae alutaceous, punctures sparse, similar to meso-postcoxal plaque. Metepisternal stria faint, almost indistinct (Fig. 75).

Legs short, pubescent, dark brown.

Aedeagus very recurved at middle, long, suddenly narrowed at apex, recurved (Fig. 113).

Measurements. Length: 1.8 mm

**Type data.** Holotype  $\sigma$  (BPBM 14650), HAWAIIAN IS: Oahu I: Waianae Mts, November 1958, in *Dracaena* (E. J. Ford, Jr.). Allotype  $\mathfrak P$ , same data as holotype. Paratypes  $3\sigma$  and  $2\mathfrak P$ : 2 with same data as holotype; 2 labelled only "Oahu I." Holotype, allotype, and 2 paratypes in BPBM; 1 paratype in BMNH; other 2 paratypes in author's collection.

Distribution. Known only from the Hawaiian Islands (Oahu).

**Etymology.** This species is the darkest and dullest *Aeletes* from the Hawaiian Islands. The specific name refers to its general appearance.

**Remarks.** This species belongs to the group containing A. mauiae, A. kukuiae, and A. punctatus. It is related to A. punctatus but distinguished by the broad apex of the aedeagus, suddenly narrowed at the end; also by the shallow, indistinct metepisternal stria and the general dull appearance.

### Aeletes ornatus (Scott)

Acritus ornatus Scott, 1908. Fauna Hawaiiensis, 3(5):516.

Aeletes ornatus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Clearly distinguished by the apical portion of the prosternum, which forms a flat zone directed downward, and above all by the elytral surface being coarsely and closely punctate, coalescent, rugose, forming irregular striae. Eyes well developed. Male genitalia not available.

Measurements. Length: 1.5 mm

**Specimens examined.** The 2 specimens from the type series were studied. **Lectotype** and paralectotype are here designated.

Lectotype \( \foats, \) labelled (1) "Aeletes ornatus, Type H.S., Kauai high plateau, VIII-1896, Perkins 682," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Paralectotype \( \foats, \) same data as lectotype, except "Type H.S." Lectotype in BMNH and paralectotype in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Remarks.** This is the species with the largest and densest puncturation within the group of Hawaiian *Aeletes* lacking the antescutellar stria.

#### Aeletes samuelsoni Yélamos, new species

Figs. 36, 76, 114

**Description.** Body oval regular, convex, yellowish brown, bright. Antennae with funicle and club lighter in color, pubescent; scape long, recurved, dilated distally; 1st joint of funicle long, broader than rest; antennal club large, oval.

Head minutely and sparsely punctured; frontal suture distinct. Eyes slightly reduced, small. Pronotum convex, punctures impressed, irregular, denser on disk, less dense on margins and apex; margins bisinuate; marginal stria interrupted behind head; base broad, narrowed at apex, anterior angles directed downward, acute.

Elytra convex, narrowed apically; puncturation larger, closer than on pronotum; margins and apex impunctate.

Propygidium and pygidium impunctate, not alutaceous.

Prosternal keel <2× minimum width; prosternal striae parallel at base, divergent at apical ½; base flat; bituberculate on apical ⅓ deflexed area flat. Mesosternum flat; marginal stria impressed, next to margin, interrupted at base; meso-metasternal suture distinct, not depressed, with coarse and close punctures at middle. Metasternum with puncturation large, strongly impressed (as on mesosternum), except on disk, convex, finely punctate (Fig. 36). 1st abdominal sternite with similar puncturation. Meso-postcoxal, lateral metasternal, and mesepimeral striae deep, not marked by punctures. Meso-postcoxal stria distant from mesocoxa, meta-postcoxal plaque wide; meso-postcoxal stria curved next to mesepimeral suture. Lateral metasternal stria arcuate, punctures large. Mesepimeral striae approximate, curved toward outer margin next to mesepimeral suture; inner mesepimeral stria separated from inner edge. Meso-postcoxal plaque and space between mesepimeral striae strongly alutaceous (Fig. 76). Metepisternal stria faint; metepisternum small, impunctate.

Legs slender, short, weakly pubescent.

Aedeagus long, broad, gradually recurved, and narrowed distally, apex very short, fine, recurved (Fig. 114).

Measurements. Length: 1.3 mm

Type data. Holotype & (BPBM 14651), HAWAIIAN IS: Kauai I: Mohihi, 19.VIII.1925, in *Elaeocarpus* (O. H. Swezey). Allotype &, from Kumuwela, 19.VIII.1925 (O. H. Swezey). Holotype and allotype in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Etymology.** I am pleased to dedicate this species to G. Allan Samuelson in recognition of his important contribution to the present work by providing me with Hawaiian Histeridae from Bishop Museum, Honolulu, as well as for his help to bringing this work to publication.

**Remarks.** This species may be separated from A. minor by the flat mesosternum and by the coarsely and closely punctured mesosternum and metasternum.

# Aeletes minor (Scott)

Figs. 77, 115

Acritus minor Scott, 1908. Fauna Hawaiiensis, 3(5):516.

Aeletes minor (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** Distal portion of prosternum suddenly directed downward, forming flat area; prosternal striae not divergent at base; inner mesepimeral stria quite separated from the inner edge (Fig. 77). Eyes well developed. Aedeagus long and broad, strongly recurved; apex short, weakly recurved (Fig. 115).

Measurements. Length: 1.3 mm

**Specimens examined.** Seven specimens were studied, including 5 from the type series (number of specimens of type series not recorded). **Lectotype** and paralectotypes are here designated.

Lectotype &, labelled (1) "A. minor, Ind. Typ., H.S., Kauai, high plateau, VIII-1896, Perkins 631," (2) "Sandwich Is., 1912–215." Paralectotypes 2& and 2\frac{9}{2}: 1 labelled (1)

"Aeletes minor, Type H.S., Kauai, Halemanu, 4000 ft., Perkins 504," (2) "Type H.S.," (3) "Sandwich Is., 1912–215"; 1 with same data except "Ind. Typ. H.S." and "Fauna Hawaiiensis Collection"; 1 labelled (1) "H.S., Aeletes minor, Kauai, high plateau, Perkins 682", (2) "Fauna Hawaiiensis Collection"; 1 labelled (1) "Aeletes minor var.?, Kauai, high plateau, VIII-1896, Perkins 682," (2) "Sandwich Is., 1912–215." Lectotype and 2 paralectotypes in BMNH; the second and third paralectotypes in BPBM.

Other specimens examined. Two more undetermined specimens are determined as this species. One specimen from Kokee, 20.VIII.1925, in *Tetraplasandra* (O. H. Swezey); another from Mohihi Ridge, 8.VII.1937 (E. C. Zimmerman). One in BPBM and the other in the author's collection.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Remarks.** This species may be distinguished from A. samuelsoni by the depressed meso-metasternal suture, and from A. ornatus by the non-rugose puncturation.

Scott (1908) reported that there were 2 specimens from Hawaii and Kauai with different characteristics. After revision, the specimen from Hawaii, labelled "Aeletes minor var. ?," is now excluded and transferred to A. hawaiiensis (Scott). The specimen from Kauai has not been found.

# Aeletes negrei Yélamos, new species

Figs. 37, 78

**Description.** Body oval regular, flat, yellowish brown, bright. Antennae lighter in color, rather pubescent; scape recurved, dilated distally; 1st joint of funicle long; club oval.

Head finely punctate; frontal suture distinct. Eyes somewhat reduced.

Pronotum convex, anterior angles directed downward; margins bisinuate, with marginal stria interrupted behind head; base broad, apex quite narrowed; sides and apex almost impunctate; disk with strong, dense punctures.

Elytral base broader than pronotum, flat; suture slightly prominent; margins impunctate, rest rugose, abundant, strong coalescent puncturation, forming irregular strioles directed obliquely toward suture only on basal ½.

Propygidium and pygidium impunctate, finely alutaceous.

Prosternal striae subparallel at base, with flat space between them, regularly divergent toward apex; apex convex; prosternal keel about 2× its basal width. Mesosternum flat; marginal stria well impressed, next to margin, interrupted at base; punctulate, with chain of foveae next to mesometasternal suture, well impressed. Metasternum slightly convex on disk; coarsely and closely punctate except on disk (Fig. 37). First abdominal sternite like metasternum. Meso-postcoxal, lateral metasternal, and mesepimeral striae shallow, marked by fine punctures. Meso-postcoxal plaque and space between mesepimeral striae small, strongly alutaceous, impunctate. Meso-postcoxal stria continuous with inner mesepimeral. Lateral metasternal stria slightly oblique (Fig. 78).

Legs short, slender, slightly pubescent.

Male genitalia not available.

Measurements. Length: 1.2 mm

Type data. Holotype ? (BPBM 14652), HAWAIIAN IS: Kauai I: Mohihi, 17.VIII.1925, in *Elaeocarpus* (O. H. Swezey). Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

Etymology. This species is dedicated to Jacques Nègre, who died 26 May 1988. He was an excellent entomologist and a devoted friend. He will be remembered with gratitude by all his colleagues and friends.

**Remarks.** Owing to its rugose elytral puncturation, this species may be distinguished from A. facilis, A. molokaiae, A. romiae, A. hawaiiensis, A. kauaiensis, A. angustus, A. laevis, A. subalatus, and A. parvulus.

#### Aeletes facilis Sharp

Figs. 38, 79, 116

Aeletes facilis Sharp, 1885. Trans. Roy. Dublin Soc., (2)3:130.

Acritus facilis (Sharp, 1885): Lewis, 1905. A Systematic Catalogue of Histeridae, p. 62.

**Diagnosis.** Elytral surface punctate. Prosternal striae very close together at the base and very divergent at the apex (Fig. 38). Mesepimeron and meso-postcoxal plaque as in Fig. 79. Eyes well developed. Aedeagus long, broad, strongly recurved; apex short, narrow, and slightly recurved (Fig. 116).

Measurements. Length: 1.4-1.5 mm

Specimens examined. Twenty-seven specimens were studied: the holotype and 11 specimens already studied by Scott (1908), as well as undetermined specimens.

Holotype 9, labelled (1) "Aeletes facilis, D.S., Type D.S., Honolulu, Blackburn," (2) "Type D.S.," (3) "Sharp Coll., 1905–313." Deposited in BMNH.

Other specimens examined. Specimens from BMNH: 1 specimen with same data as holotype, but without "Type D.S."; 1 specimen with same data except "Aeletes facilis var." and "B. blackburnius, Type a"; 1 specimen (1) "Bacanius Blackburnius Lewis," (2) "Hawaii 80–69"; 7 specimens (1) "Acritus facilis Sharp, Scott," (2) "Hawaiian Is., Rev. Blackburn, 1888–30"; 1 specimen (1) "Aeletes facilis Sharp, Oahu Mts., near Honolulu, 1900, Perkins 758," (2) "Sandwich Is., 1912–215."

Specimens from BPBM: 1 specimen (1) "Aeletes facilis Sharp, Oahu Mts., near Honolulu, 1900, Perkins 758," (2) "Fauna Hawaiiensis Collection"; 10 specimens from Mt Tantalus, 1800 ft (W. M. Giffard), 8 collected 7.IV.1906 and 2 more 16.VI.1906; 1 specimen with same data except "1300 ft., 25.VI.1906"; 2 specimens labelled only "Oahu I." Eight specimens are deposited in BPBM and 6 in author's collection.

Specimens from SAM: 1 specimen (1) "Bacanius Blackburnius Lew., Hawaii," (2) "Blackburnius," (3) "S.A. Museum Specimen."

Distribution. Endemic to the Hawaiian Islands (Oahu).

**Remarks.** This species may be separated from A. molokaiae, A. romiae, A. hawaiiensis, and A. kauaiensis by the slightly convex apical part of the prosternum.

# Aeletes molokaiae (Scott)

Figs. 39, 80, 117

Acritus molokaiae Scott, 1908. Fauna Hawaiiensis, 3(5):518.

Aeletes molokaiae (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species has the same general characteristics as *A. facilis*. Mesepimeron and meso-postcoxal plaque as in Fig. 80. Eyes well developed. Aedeagus long, broad, rather recurved; apex very short, truncate, and slightly recurved (Fig. 117).

Measurements. Length: 1.5 mm.

Specimens examined. The holotype and 2 other specimens were studied.

Holotype 9, labelled (1) "Aeletes molokaiae, Type H.S., Molokai 4500 ft., 23.IX.1893, Perkins 161," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Deposited in BMNH.

Other specimens studied. There are 2 more specimens determined as this species, from Kauai I: Mohihi Ridge, 8.VII.1937 (E. C. Zimmerman). In BPBM and author's collection.

Distribution. Endemic to the Hawaiian Islands (Molokai and Kauai).

**Remarks.** This species may be distinguished from A. facilis by the presence of the frontal suture and the convex prosternal apex. It differs from A. romiae, A. hawaiiensis, and A. kauaiensis chiefly by prosternal striae that are gradually divergent toward the base (Fig. 39).

Aeletes romiae Yélamos, new species

Figs. 40, 81, 118

Acritus kauaiensis Scott, 1908. Fauna Hawaiiensis, 3(5):518 (part) (misidentification).

**Description.** Body oval regular, slightly convex; yellowish brown, bright. Antennae long, lighter in color; finely pubescent; scape recurved, rather dilated distally; 1st joint of funicle long; antennal club oval.

Head impunctate; frontal suture distinct. Eyes scarcely reduced.

Pronotum slightly convex; apical angles directed downward, rounded; margins slightly bisinuate, marginal stria interrupted behind head; base broad, apex narrower; disk with impressed and dense punctures, rest scarcely punctate.

Elytra weakly dilated, narrowed; slightly convex; suture prominent; humeri and epipleurae impunctate or minutely punctured, punctate on rest of elytra, coalescent on apical part, forming fine strioles.

Propygidium and pygidium punctulate, not alutaceous.

Prosternal keel more than 2.5× basal width. Prosternum with striae subparallel at base, divergent toward apex, prominent. Mesosternum flat, with impressed, dense punctures; meso-metasternal suture curved, distinct; marginal stria distinct, interrupted at base. Metasternal disk slightly convex, punctures fine, sparse, stronger, dense on rest of metasternum (Fig. 40). 1st abdominal sternite like metasternum. Meso-postcoxal, lateral metasternal, and mesepimeral striae well impressed, marked by small punctures. Lateral metasternal stria slightly arcuate; mesepimeral striae rather close together, curved near mesepimeral suture; meso-postcoxal and meta-postcoxal plaques and mesepimeron strongly alutaceous (Fig. 81). Metepisternal striae well marked, long.

Legs short, relatively thick, almost glabrous.

Aedeagus long, narrow, recurved at medial portion, gradually narrowed distally; apex very short, slightly recurved (Fig. 118).

Measurements. Length: 1.5 mm

**Type data.** Holotype σ (BPBM 14653), HAWAIIAN IS: Kauai I: Mohihi Ridge, 15.VII.1937 (E. C. Zimmerman). Allotype ♀, same data as holotype. Paratypes 7♀: 3 specimens same data as holotype; 1 specimen same data as holotype, except "8.VII.1937"; 1 specimen from North W Alakai, Swamp 9.VII.1937 (E. C. Zimmerman); 1 specimen labelled (1) "Aeletes kauaiensis, Kauai, high plateau, VII-1896, Perkins 682," (2) "Fauna Hawaiiensis Collection"; 1 specimen from Waimea Mts, labelled "Waimea Mts., Kauai, 4000 ft., June 1894, Perkins Coll." Holotype, allotype, and 2 paratypes in BPBM; one paratype each in BMNH and MZ; other 3 paratypes in author's collection.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Etymology.** This species is dedicated to my wife Pepita Pena Romia. I am particularly grateful for her help with this work in the BMNH.

**Remarks.** This species may be distinguished from A. molokaiae by the prosternal striae parallel at the base and divergent at the middle. It differs from A. hawaiiensis and A. kauaiensis by the inner mesepimeral stria being oblique, not parallel to the inner margin.

After revision of the type series of *A. kauaiensis*, one specimen has been found that differs significantly from the holotype. This specimen (labelled as *A. kauaiensis*) is now assigned to *A. romiae* and designated a paratype.

#### Aeletes hawaiiensis (Scott) n. stat.

Figs. 24, 82, 119

Acritus facilis var. hawaiiensis Scott, 1908. Fauna Hawaiiensis, 3(5):517.

Acritus minor var. ? Scott, 1908. Fauna Hawaiiensis, 3(5):516, (part) (misidentification).

Aeletes facilis var. hawaiiensis (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species has the same general characteristics as A. molokaiae. Eyes slightly reduced. Aedeagus long, recurved, distal part with a marked constriction; apex long, narrow, and recurved (Fig. 119).

Measurements. Length: 1.3 mm

Specimens examined. The 2 specimens from the type series, 3 undetermined specimens, and another misidentified were studied. The **lectotype** and the paralectotype are here designated.

Lectotype &, labelled (1) "Type H.S., A. facilis var. hawaiiensis. Hawaii. Kilauea, VIII-1896, Perkins 656," (2) "Sandwich Is., 1912–215," (3) "Type H.T." Paralectotype &, labelled as follows: (1) "Ind. typ. H.S., A. facilis var. hawaiiensis, Hawaii, Kona, 4000 ft., VIII.1892, Perkins 231," (2) "Fauna Hawaiiensis Collection." Lectotype in BMNH and paralectotype in BPBM.

Other specimens examined. One specimen of the type series of Aeletes minor is transferred to the present species. Labelled as follows: "H.S. Aeletes minor var.?, Hawaii, Kona, 3000 ft., IX.1892, Perkins." Deposited in BPBM. Two specimens from Kaiwiki, 22.IX.1918 (O. H. Swezey). One specimen from Kili, collected VII.1906. Two specimens in BPBM and one in author's collection.

Distribution. Known only from the Hawaiian Islands (Hawaii).

Remarks. This variety was established on the basis of the frontal suture being shorter and narrower than the nominal species. The form of the prosternum (Fig. 24) and aedeagus are also different (see Key to Species). It is, therefore, now elevated to species status.

It may be distinguished from A. kauaiensis by the widely arcuate lateral metasternal stria (Fig. 82) and by the distal part of the aedeagus with a preapical constriction.

# Aeletes kauaiensis (Scott)

Figs. 83, 120

Acritus kauaiensis Scott, 1908. Fauna Hawaiiensis, 3(5):518.

Aeletes kauaiensis (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

Diagnosis. This is possibly the largest Hawaiian Aeletes, distinguished by the same characteristics as A. molokaiae. Eyes well developed. Aedeagus long, strongly recurved; apex short and recurved (Fig. 120).

Measurements. Length: 1.7-1.8 mm

**Specimens examined.** Sixteen specimens were studied from the type series, which originally consisted of 18 specimens and 2 other undetermined ones. **Lectotype** and paralectotypes are here designated.

Lectotype of, labelled (1) "Aeletes kauaiensis, Type H.S., Kauai, above Waimea, 4000 ft., Perkins 273," (2) "Type H.S.," (3) "Sandwich Is., 1912–215." Deposited in BMNH. Paralectotypes 6 of and 9 \( \frac{9}{2} \): 7 with same data as lectotype (3 in BMNH and 4 in BPBM); 5 specimens with same label data (1) "A. kauaiensis, H.S., Kauai, Koholuamano, Perkins 526," (2) "Sandwich Is., 1912–215" (4 in BMNH and 1 in BPBM); 2 labelled (1) "Mts. Waimea, Kauai 4000 ft., Perkins, V-1894," (2) "Sandwich Is., 1912–215"; 1 specimen labelled (1) "Kauai, VIII-1896," (2) "Sandwich Is., 1912–215." The 3 last specimens in BMNH.

Other specimens examined. Two specimens originally undetermined labelled "Mts. Waimea, Kauai, 4000 ft., June 1894, Perkins Coll." Deposited in BPBM and author's collection.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Remarks.** This species may be separated from *A. romiae* by the inner mesepimeral stria parallel to the margin (Fig. 83). It differs from *A. hawaiiensis* by the slightly arcuate lateral metasternal stria and the aedeagus without preapical constriction.

One specimen from the type series is here transferred to the type series of A. romiae, n. sp.

#### Aeletes subalatus (Scott)

Figs. 41, 84, 121

Acritus subalatus Scott, 1908. Fauna Hawaiiensis, 3(5):530.

Aeletes subalatus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

Diagnosis. This species may be distinguished by its depressed form, short prosternal keel, divergent the same at the base as at the apex, with a preapical protuberance (Fig. 41); meso-

metasternal suture well impressed; mesosternum depressed; lateral metasternal and metepisternal striae (Fig. 84) coinciding at the outer angle with the outer mesepimeral stria. Eyes slightly reduced. Aedeagus recurved, subparallel; apex short and recurved (Fig. 121).

Measurements. Length: 1.0 mm

**Specimens examined.** Five specimens were studied, 4 of the type series, which originally included 5 specimens (one specimen from Lanai not found). **Lectotype** and paralectotypes are designated.

Lectotype \$\, labelled (1) "Aeletes subalatus, Type H.S., Lanai 2–3000 ft., Perkins," (2) "Sandwich Is., 1912–215." Paralectotypes 3\$\sigma\$: 1 labelled (1) "Aeletes subalatus var.?, H.S., Molokai 6000 ft, 22.VI.1893, Perkins 192," (2) "Molokai Mts., 6000 ft., Perkins 22/VI/1893," (3) "Sandwich Is., 1912–215"; 1 labelled (1) "H.S., Aeletes subalatus var.?, Molokai Mts., 2000 ft.-1893, Perkins," (2) "Fauna Hawaiiensis Collection"; 1 specimen like the preceding, except collected to 3000 ft. Lectotype and first paralectotype in BMNH; others paralectotypes in BPBM.

Other specimens examined. One specimen was undetermined in BPBM, now determined as this species, from Molokai I: Waikolu Mts, at 1400 m, 29.IV.1955 (E. J. Ford, Jr.). In author's collection.

Distribution. Known only from the Hawaiian Islands (Lanai and Molokai).

**Remarks.** This species is distinguished from A. angustus chiefly by the length of the prosternal keel, and from A. laevis by the presence of a preapical protuberance, as well as its shorter body.

#### Aeletes parvulus (Scott)

Fig. 122

Acritus parvulus Scott, 1908. Fauna Hawaiiensis, 3(5):533.

Aeletes parvulus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

Diagnosis. Meso-metasternal suture not depressed, prosternal apex not directed downward and surface impunctate. Eyes well developed. Aedeagus broad, gradually narrowed distally, barely curvate, flat; apex short, very narrow, and recurved (Fig. 122).

Measurements. Length: 0.9 mm

**Specimens examined.** The 3 specimens from the type series were examined. **Lectotype** and paralectotypes are here designated.

Lectotype  $\sigma$ , labelled (1) "Aeletes parvulus, Lanai near Waipaa, over 2000 ft., Perkins 99," (2) "Sandwich Is., 1912–215." Paralectotypes  $\mathfrak P$  and  $\sigma$ , same data as lectotype. Lectotype and 1 paralectotype in BMNH, other paralectotype in BPBM.

Distribution. Known only from the Hawaiian Islands (Lanai).

**Remarks.** This species is related to A. angustus, A. laevis, and A. subalatus but distinguished by a meso-metasternal suture that is not depressed.

### Aeletes laevis (Scott)

Figs. 25, 85

Acritus laevis Scott, 1908. Fauna Hawaiiensis, 3(5):530.

Acritus angustus Scott, 1908. Fauna Hawaiiensis, 3(5):531, (part) (misidentification).

Aeletes laevis (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:79.

**Diagnosis.** This species is distinguished by the prosternal striae subparallel at the base and slightly divergent at the apex (Fig. 25) and the impunctate elytral surface; preapical protuberance not present. Eyes slightly reduced. Male genitalia not available.

Measurements. Length: 1.3 mm

**Specimens examined.** Two specimens were studied, the holotype and another from the type series of *Aeletes angustus* misidentified.

Holotype 9, labelled (1) "Type H.S., A. laevis, Kauai, Halemanu, 4000 ft., V.1895, Perkins 504," (2) "Type H.T.," (3) "Sandwich Is., 1912–215." Deposited in BMNH.

Other specimens examined. One specimen labelled like the preceding misidentified as A. angustus by Scott (1908). Deposited in BPBM.

Distribution. Known only from the Hawaiian Islands (Kauai).

**Remarks.** This species is distinguished from A. parvulus by having a depressed meso-metasternal suture, from A. angustus mainly by the length of the prosternal keel and the form of the outer mesepimeral stria (Fig. 85), and from A. subalatus by the absence of a preapical prosternal protuberance.

#### Aeletes angustus (Scott)

Figs. 26, 86

Acritus angustus Scott, 1908. Fauna Hawaiiensis, 3(5):531.

Aeletes angustus (Scott, 1908): Bickhardt, 1916. Genera Insectorum, 166a:78.

**Diagnosis.** This species has the same general characteristics as A. laevis. Male genitalia not available.

Measurements. Length: 1.0 mm

**Specimens examined.** After revision of the type series, the specimen from Kauai is excluded and transferred to *Aeletes laevis* Scott. The **lectotype** is here designated from another specimen.

Lectotype \$, labelled (1) "Type H.S., Aeletes angustus, Hawaii, Olaa, XII.1896, Perkins," (2) "Type H.T.," (3) "Sandwich Is., 1912–215." Deposited in BMNH.

Distribution. Known only from the Hawaiian Islands (Hawaii).

**Remarks.** Related to A. laevis and A. subalatus but distinguished by the length of the prosternal keel and the form of the prosternal striae.

#### **DISCUSSION**

Most previously described species did not have holotypes or paratypes designated, so lectotype series (lectotype and paralectotypes) had to be designated from syntypes, even for varieties.

There were 53 species studied, with 31 maintaining their status. *Bacanius confusus* is transferred to *Aeletes. Aeletes longipes* var. *haleakalae* and *A. facilis* var. *hawaiiensis* are elevated to species status. *Aeletes basalis* of Scott (1908) was misidentified; it is here described as *A. scotti*, n. sp. *Acritus* sp. of Scott (1908) is described as *A. aldridgei*, n. sp. An additional 17 species are described as new. At present, all species are considered Hawaiian endemics.

The *Aeletes* of the Hawaiian Islands derives mainly from the Australian Region, as observed by the morphology of several species, and possibly to a lesser degree from the American mainland. This fact has also been observed among other natural groups.

A review of the American Aeletes is required to establish the phylogenetic relationships of the genus. Old descriptions of several species are unsatisfactory for this purpose. Thus, only a few relationships possible have been included for the well-known species. There are several species known only by their type series, sometimes only by females. Intensified sampling is needed, particularly on the American mainland and the Hawaiian Islands, to find the unknown males. Study of the aedeagus is needed to build cladograms of Aeletes.

The distributional pattern of Aeletes within the Hawaiian Islands (Table 1) is similar to that of certain other insect groups, with the older main islands (Kauai and Oahu) having more species than the newer islands (Molokai, Lanai, Maui, and Hawaii). The oldest islands, northwest of Kauai, are at most eroded remnants of high islands. They no longer have the resources to support a large biota; e.g., Necker Island has only one species of Aeletes.

Table 1. Distribution of Aeletes species in the Hawaiian Islands.

	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	Necker
A. swezeyi						x	
A. sharpi						x	
A. lanaiensis			х		х	•	
A. aldridgei	x						
A. eutretus	x				x	x	
A. scotti					x		
A. kaalae					X		
A. perkinsi				x			
A. lewisi						x	
A. longipes	x	x			x		
A. haleakalae		X					
A. nepos				x	x	x	
A. blackburni		X					
A. oahuensis					x		
A. neckerensis							x
A. germanus					x		
A. similis				x			
A. angustisternus		x					
A. pulchellus		x		x	x		
4. subbasalis			X		x		
1. orioli						x	
1. fordi					x		
4. subrotundus					x		
1. confusus					x		
1. solitarius					x	x	
1. flavitarsis					x		
1. espanoli						x	
1. zimmermani						x	
1. mohihiensis						x	
1. kilaueae	x						
1. waianaae					X		
1. monticola		x					
1. concentricus					x	x	
1. insolitus						x	
1. sculptus				x			
1. makaweliae						x	
1. mauiae		x					
1. kukuiae					x		
1. punctatus						x	
1. fuscus					x		
l. ornatus						x	
l. samuelsoni						x	
l. minor						x	
l. negrei						X	
l. facilis					x		
l. molokaiae				x	-	x	
l. romiae						X	
l. hawaiiensis	x						
l. kauaiensis						x	
. subalatus			x	x			
. parvulus			x	**			
l. laevis						x	
l. angustus	X						
Total sp. 53	6	7	4	7	20	22	1
sp. 33	U	,	7	,	20	44	1

The great morphological diversity of the Hawaiian *Aeletes* clearly indicates a varied origin, accompanied by large adaptative radiations occupying diverse habitats in the different islands. The Hawaiian species may be grouped on the basis of external morphology and known aedeagi. The following groups can be easily established:

- A: zimmermani, mohihiensis, kilaueae, waianaae, monticola
- B: parvulus, angustus, laevis, subalatus
- C: sharpi, lanaiensis
- D: swezeyi, aldridgei, eutretus, scotti, kaalae, perkinsi, lewisi, longipes, haleakalae, nepos, blackburni, oahuensis
- E: neckerensis, germanus
- F: similis, angustisternus, pulchellus, subbasalis, orioli, fordi
- G: sculptus, makaweliae, mauiae, kukuiae, punctatus, fuscus, facilis, hawaiiensis, molokaiae, romiae, kauaiensis, ornatus, negrei, samuelsoni (a wide and heterogeneous group, possibly to be divided)

Species of unknown relationship: subrotundus, solitarius, espanoli, confusus, concentricus, insolitus, flavitarsis

Scott (1908) also observed great morphological variability of wings and eyes. The same species sometimes exhibits specimens with a variable development of wings and eyes. There are anophthalmic specimens and others with reduced or well-developed eyes. Without any doubt, these are adaptative characteristics.

# **ACKNOWLEDGMENTS**

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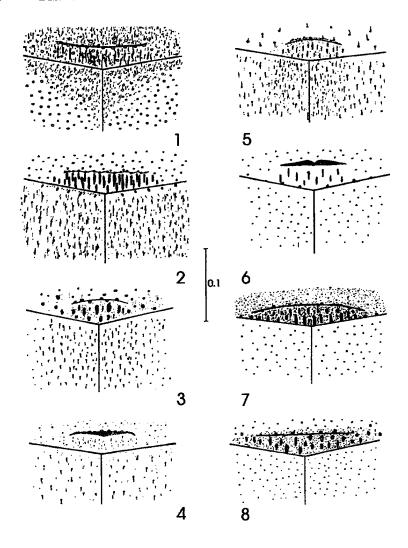
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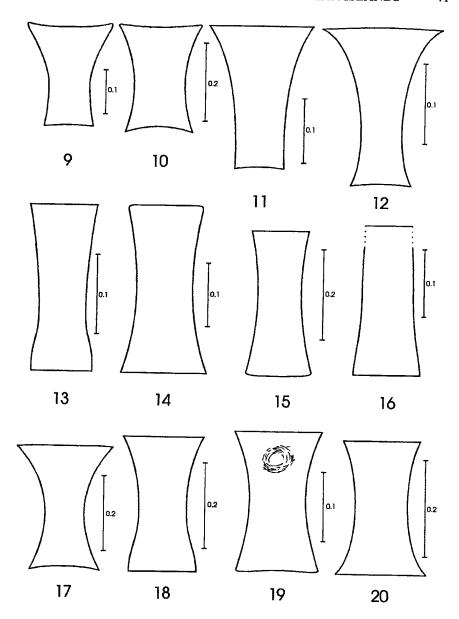
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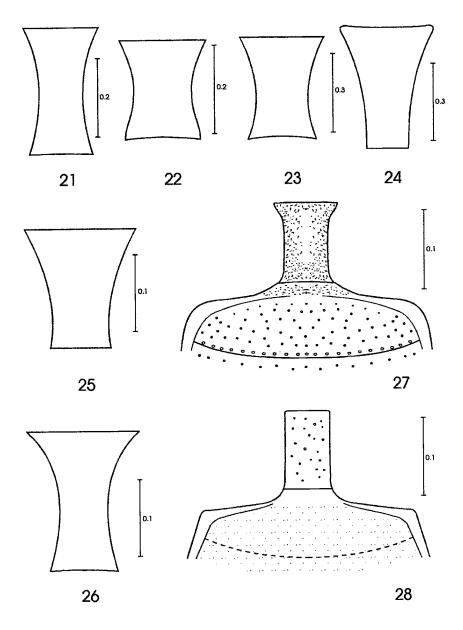
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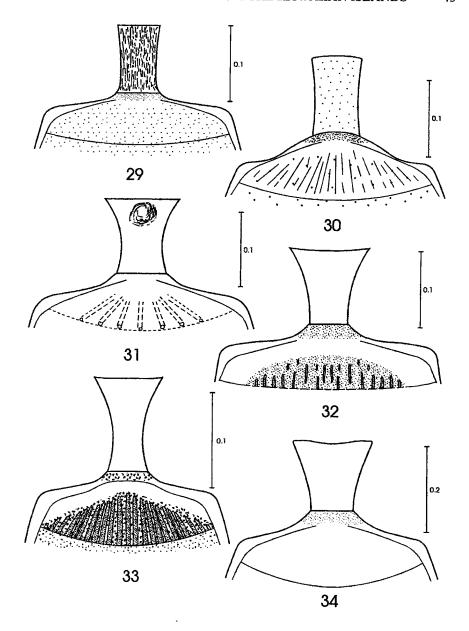
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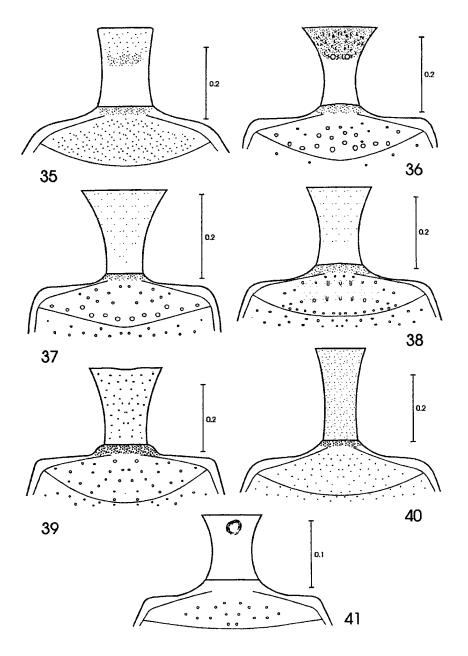
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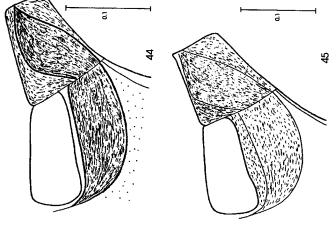
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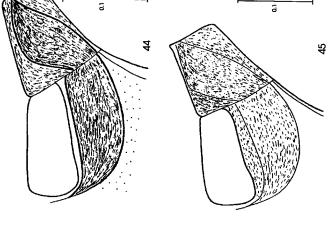


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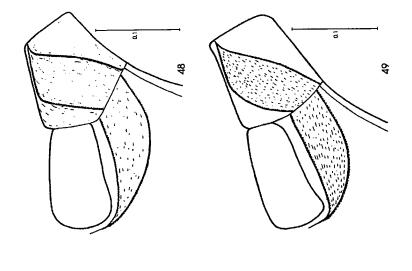
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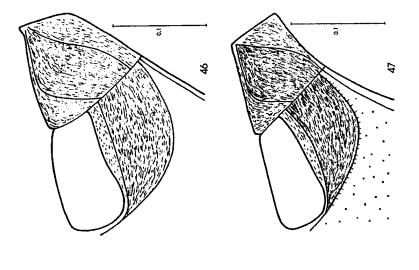
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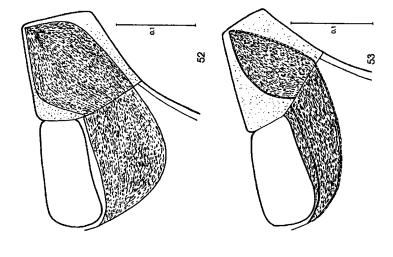
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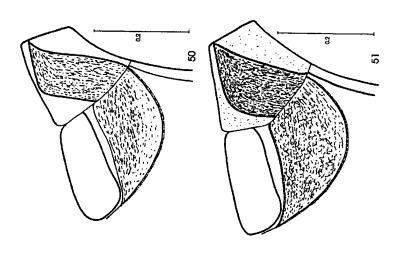
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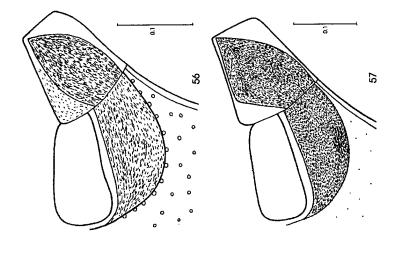
Figs. 46-47. Mesepimeron and meso-postcoxal plaque: 46, Aeletes eutretus; 47, A. scotti. Scale in mm.



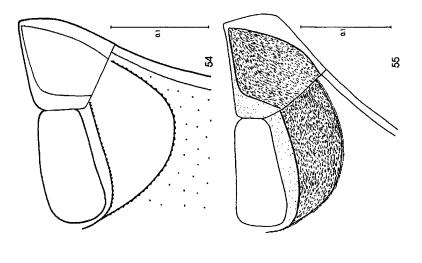
Figs. 52-53. Mesepimeron and meso-postcoxal plaque: 52, Aeletes nepos; 53, A. blackburni. Scale in mm.



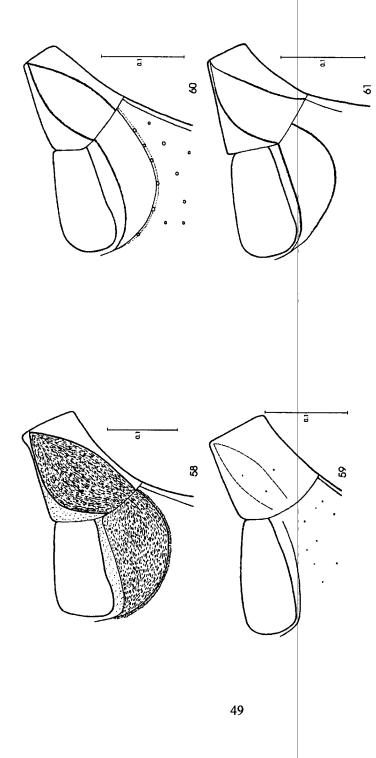
Figs. 50-51. Mesepimeron and meso-postcoxal plaque: 50, Aeletes longipes; 51, A. haleakalae. Scale in mm.



Figs. 56-57. Mesepimeron and meso-postcoxal plaque: 56, Aeletes similis; 57, A. subbasalis. Scale in mm.

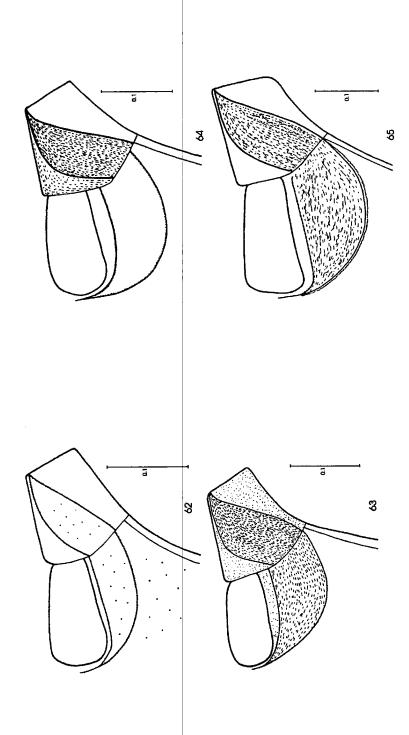


Figs. 54-55. Mesepimeron and meso-postcoxal plaque: 54, Aeletes neckerensis; 55, A. germanus. Scale in mm.



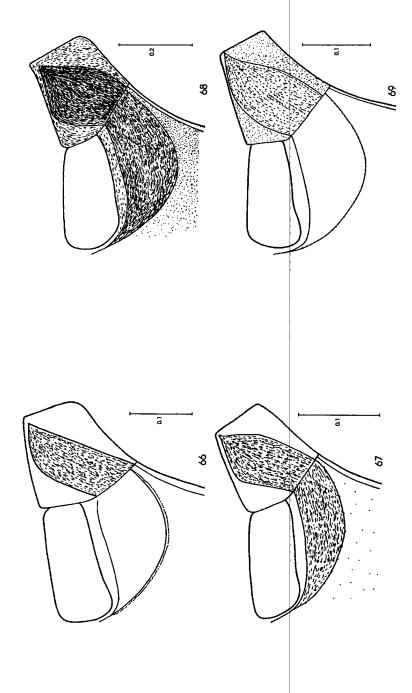
Figs. 58-59. Mesepimeron and meso-postcoxal plaque: Figs. 60-61 58, Aeletes orioli; 59, A. subrotundus. Scale in mm. 60, Aeletes

Figs. 60-61. Mesepimeron and meso-postcoxal plaque: 60, Aeletes confusus; 61, A. solitarius. Scale in mm.



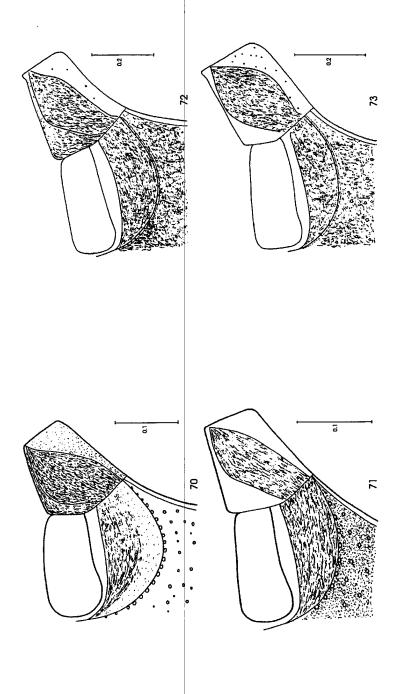
Figs. 62-63. Mesepimeron and meso-postcoxal plaque: 62, Aeletes flavitarsis; 63, A. espanoli. Scale in mm.

Figs. 64-65. Mesepimeron and meso-postcoxal plaque: 64, Aeletes zimmermani; 65, A. mohihiensis. Scale in mm.



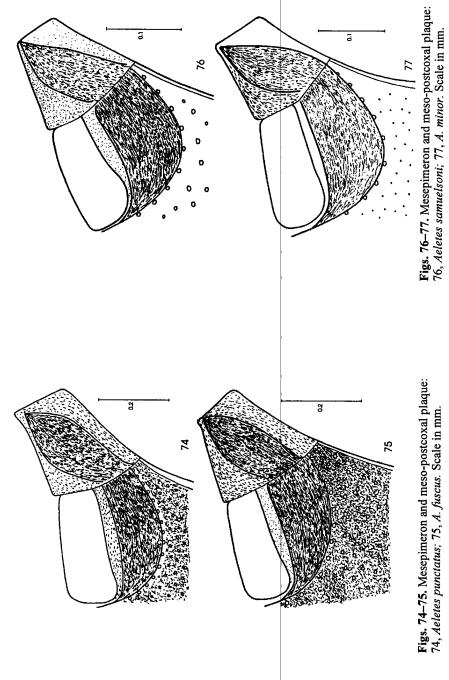
Figs. 66-67. Mesepimeron and meso-postcoxal plaque: 66, Aeletes kilaueae; 67, A. waianaae. Scale in mm.

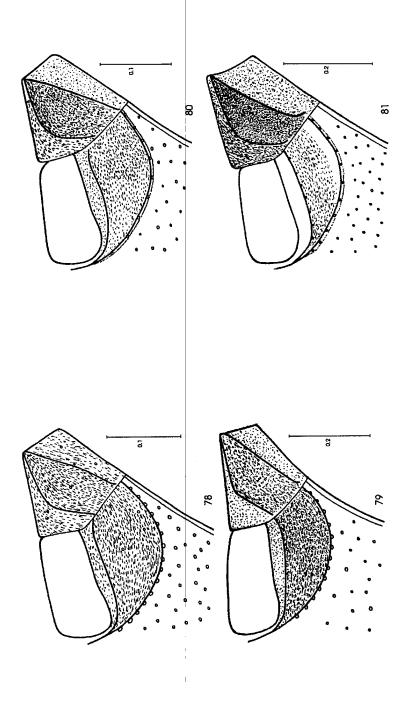
Figs. 68-69. Mesepimeron and meso-postcoxal plaque: 68, Aeletes monticola; 69, A. concentricus. Scale in mm.



Figs.72-73. Mesepimeron and meso-postcoxal plaque: 72, Aeletes mauiae; 73, A. kukuiae. Scale in mm.

Figs. 70-71. Mesepimeron and meso-postcoxal plaque: 70, Aeletes sculptus; 71, A. makaweliae. Scale in mm.





Figs. 80-81. Mesepimeron and meso-postcoxal plaque: 80, Aeletes molokaiae; 81, A. romiae. Scale in mm.

Figs. 78–79.Mesepimeron and meso-postcoxal plaque: 78, *Aeletes negrei*; 79, *A. facilis*. Scale in mm.

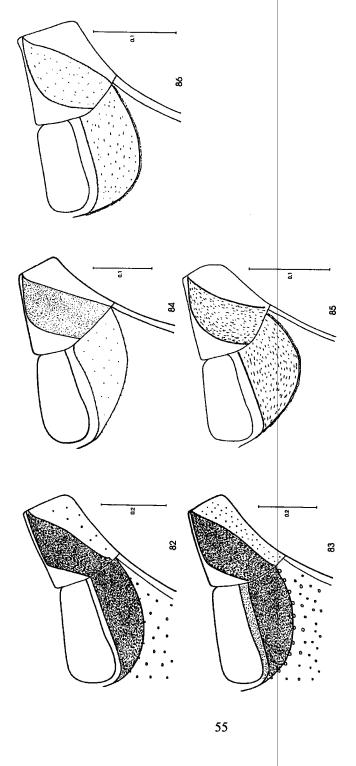
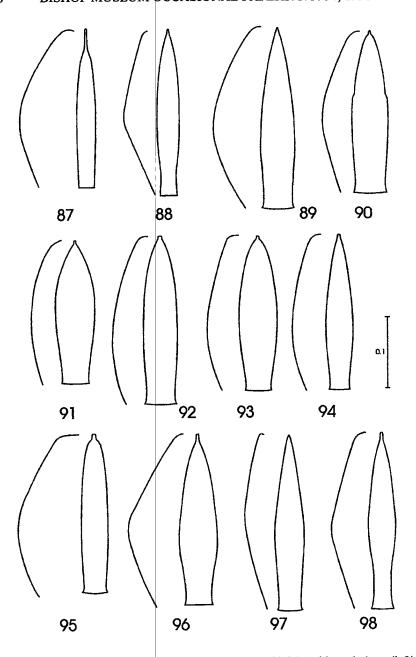
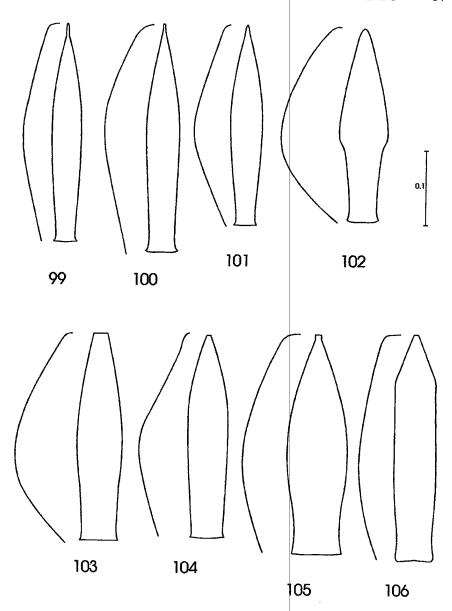


Fig. 86. Mesepimeron and mesopostcoxal plaque: 86, Aeletes angustisternus. Scale in mm. Figs. 84–85. Mesepimeron and mesopostcoxal plaque: 84, Aeletes subalatus; 85, A. Idevis. Scale in mm.

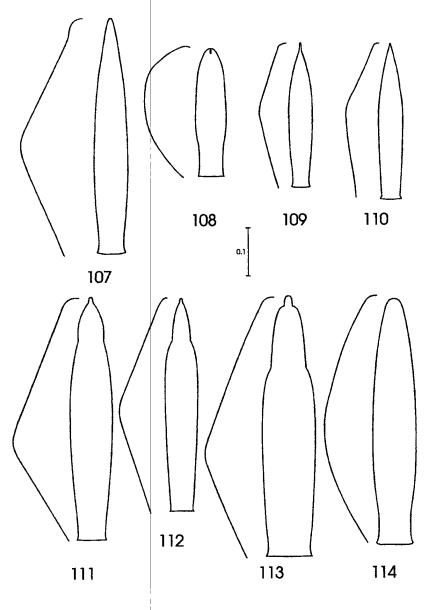
Figs. 82–83. Mesepimeron and mesopostcoxal plaque: 82, Aeletes hawaiiensis; 83, A. kauaiensis. Scale in mm.



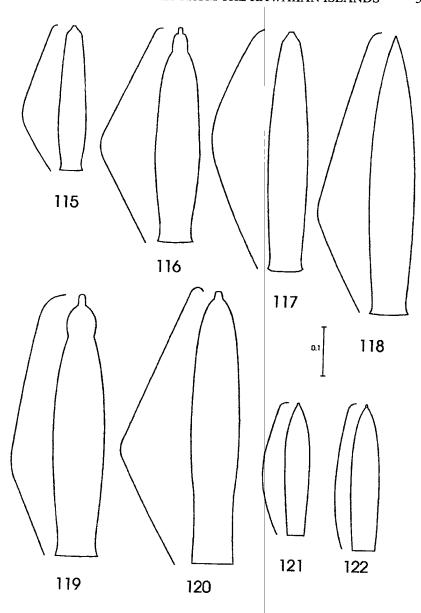
Figs. 87–98. Diagrammatic outline of aedeagus, ventral (right) and lateral views (left): 87, Aeletes lanaiensis; 88, A. eutretus; 89, A. scotti; 90, A. kaalae; 91, A. perkinsi; 92, A. longipes; 93, A. blackburni; 94, A. oahuensis; 95, A. neckerensis; 96, A. similis; 97, A. angustisternus; 98, A. pulchellus. Scale in mm



Figs. 99–106. Diagrammatic outline of aedeagus, ventral (right) and lateral views (left): 99, Aeletes subbasalis; 100, A. orioli; 101, A. fordi; 102, A. subrotundus; 103 A. solitarius; 104, A. espanoli; 105, A. zimmermani; 106, A. kilaueae. Scale in mm.



Figs. 107-114. Diagrammatic outline of aedeagus, ventral (right) and lateral views (left): 107, Aeletes monticola; 108, A. insolitus; 109, A. sculptus; 110, A. makaweliae; 111, A. kukuiae; 112, A. punctatus; 113, A. fuscus; 114, A. samuelsoni. Scale in mm.



Figs. 115–122. Diagrammatic outline of aedeagus, ventral (right) and lateral views (left): Aeletes minor; 116, A. facilis; 117, A. molokaiae; 118, A. romiae; 119, A. hawaiiensis; 120, A. kauaiensis; 121, A. subalatus; 122, A. parvulus. Scale in mm.

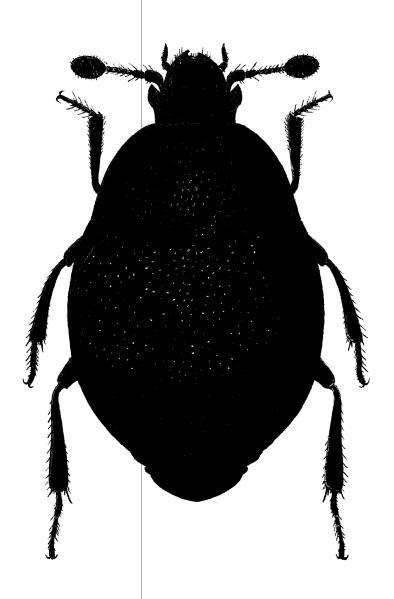


Fig. 123. Aeletes fuscus Yélamos, dorsal habitus.

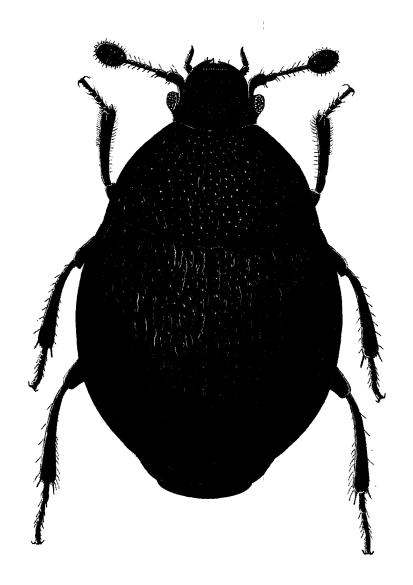


Fig. 124. Aeletes sculptus Yélamos, dorsal habitus.