

Hawaiian Sarcophagidae

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(Presented by E. H. Bryan, Jr., at the meeting of October 14, 1940)

Six species of Sarcophagidae are reported from the Hawaiian islands: *Ravinia lherminieri* (Desv.) (syn. *Sarcophaga pallinervis*), *Hystricocnema plinthopyga* (Wied.) (syn. *S. robusta* Aldrich), *Sarcophaga dux* Thomson, *Sarcophaga peregrina* (Desv.) (syn. *S. fuscicauda* Boettcher), *Sarcophaga haemorrhoidalis* (Fallen), and *Sarcophaga barbata* Thomson.

Two more species were found among the specimens sent to me from B. P. Bishop Museum by Mr. Bryan: *Sarcophaga albiceps* Meigen and *Sarcophaga orientaloides* Senior-White.

Ravinia and *Hystricocnema* are two well characterized genera: the remaining species I include provisionally in the genus *Sarcophaga* (*s. lat.*).

KEY TO GENERA OF HAWAIIAN SARCOPHAGIDAE

1. Female 7th tergite present and reduced to a pair of plates; penis one-jointed *Ravinia* Desv.
- 1'. Female 7th tergite absent; penis with more than one joint.....2.
2. Basal half of hind legs with many strong spines beneath; 6th female sternite with about the same development as the 6th tergite. *Hystricocnema* Towns.
- 2'. Male hind legs normal; 6th female sternite much more reduced than 6th tergite..... *Sarcophaga* Meig. (*s. lat.*)

[*Ravinia lherminieri* may be recognized by its pale epaulets (pads with black bristles at the extreme base of the wing), its red male hypopygium, and absence of apical scutellar bristles (although there are two pairs of macrochaetae on the outer half of the scutellum.) There are six strong pairs of dorso-centrals, a pair of prescutellar acrostichals, and also three pairs of acrostichal bristles before the suture. There are no long hairs on the middle or hind legs.

Hystricocnema plinthopyga has black epaulets (as do also the species of *Sarcophaga* in Hawaii), the hypopygium of the male is yellowish-red, apical scutellar bristles present and crossing, small bristle-like hairs on the thorax unusually long, and the basal half of the hind femora, beneath, is thickly set with strong, stubby bristles, in irregular rows, with a tuft of hairs at its base. There are seven pairs of dorsocentrals, two strong pairs of prescutellar acros-

tichals, and at least six pairs of presutural acrostichals, decreasing in length from front to rear. E. H. B., Jr.]

Genus **Hystricocnema** Townsend, 1919.

Type species: **Hystricocnema plinthopyga** (Wied.), 1830.

Sarcophaga plinthopyga Wiedemann, 1830, Auss. Zweifl., Ins. 2: 360.

Sarcophaga tripartita Wulp, 1896, Biol. Centr. Amer., 2: 284.

Sarcophaga robusta Aldrich, 1916, *Sarcophaga* and allies: 268, fig. 128.

Sarcophaga plinthopyga Aldrich, 1924, Ann. Ent. Soc. America, 17: 210 (type redescribed).

Sarcophaga quadriforceps Curran, 1932, Medd. Zool. Mus. Oslo, no. 30: 365, fig.

Geographical distribution: Central and South America, Galapagos Is. and Hawaii.

Genus **Ravinia** Desvoidy, 1863.

Ravinia Desvoidy, 1863, Hist. Dipt., 2: 434.

Euravinia Townsend, 1917, Pr. Biol. Soc. Wash., 30: 191.

The type species of *Ravinia* is *Sarcophaga haematoides* Meigen, from Europe, and the type species of *Euravinia* is *Myophora lherminieri* Desv., from North America. These species are congeneric.

Ravinia lherminieri (Desvoidy), 1830.

Myophora lherminieri Desvoidy, 1830, Myodaires: 339.

Sarcophaga pallinervis Thomson, 1869, Eug. Resa: 535.

Ravinia communis Parker, 1914, Pr. Boston Soc., 35, pl. 1-5.

Sarcophaga communis Aldrich, 1916, *Sarcophaga* and allies: 253, fig. 120.

Sarcophaga lherminieri Aldrich, 1930, Proc. U. S. Nat. Mus., 78, art. 12: 13, (redescription of type.)

Geographical distribution: North America and Hawaii.

Genus **Sarcophaga** Meigen (*s. lat.*)

The species included in this genus belong to many genera, but the generic classification of the European and Oriental species is neither definite nor correct. It is best provisionally to consider all species as in *Sarcophaga s. lat.*

KEY TO SPECIES

1. Males	2.
1'. Females	7.
2. Hypopygium entirely black.....	4.
2'. Second segment of hypopygium red.....	3.
3. Prescutellar bristles absent.....	<i>S. haemorrhoidalis</i> (Fallen.)
3'. Prescutellar bristles present.....	<i>S. barbata</i> Thomson

4. Back of head with only the postocular cilia black, the remaining hairs entirely white *S. dux* Thomson
- 4'. Back of head with one or two rows of black hairs..... 5.
5. Posterior tibiae without long villosity..... *S. peregrina* (Desvoidy)
- 5'. Posterior tibiae with long villosity..... 6.
6. Costal spine greatly developed..... *S. orientalooides* Senior-White
- 6'. Costal spine small..... *S. albiceps* Wied.
7. Hypopygium red 8.
- 7'. Hypopygium black 9.
8. 6th tergite dorsally divided, prescutellar acrostical bristles absent.....
..... *S. haemorrhoidalis* (Fallen)
- 8'. 6th tergite entire, prescutellar acrostical bristles present.....
..... *S. barbata* Thomson.
9. Back of head entirely covered with white pile, only the postocular cilia black *S. dux* Thomson.
- 9'. Back of head with one or two rows of black bristles..... 10.
10. 6th tergite dorsally divided..... *S. albiceps* Meigen.
- 10'. 6th tergite entire..... 11.
11. Costal spine greatly developed; 6th tergite well chitinized and with a marginal row of strong bristles..... *S. orientalooides* Senior-White.
- 11'. Costal spine small; 6th tergite poorly chitinized and with small marginal hairs *S. peregrina* (Desvoidy)

***Sarcophaga haemorrhoidalis* (Fallen), 1816.**

Musca haemorrhoidalis Fallen, 1816, Vet. Akad. Handl. : 236.

Sarcophaga haemorrhoidalis Boettcher, 1913, Deut. Ent. Zeit. : 10, fig. 37.

Geographical distribution: Europe, Asia, Africa, and North America.

***Sarcophaga barbata* Thomson, 1869.**

Sarcophaga barbata Thomson, 1869, Euge. Resa : 533.

Sarcophaga falculata Pand., 1896, Rev. Ent., 15:185.

Sarcophaga argentina Brethes, 1916, Ann. Mus. Nac. B. Aires, 28:142.

Geographical distribution: Hawaii (original description), Europe, North America, India, and Argentine.

***Sarcophaga peregrina* (Desvoidy), 1830.**

Myophora peregrina Desvoidy, 1830, Myodaires : 356.

Myophora subrotunda Desvoidy, 1830, Myodaires : 357.

Myophora rapida Desvoidy, 1830, Myodaires : 360.

Sarcophaga tritona Macquart, 1850, Dipt. Ex. Supl., 4 : 234.

Sarcophaga irrequieta Walker, 1849, List, 4 : 830.

Sarcophaga ochripalpis Thomson, 1868, Eug. Resa : 537.

Sarcophaga fuscicauda Boettcher, 1912, Ent. Mitt., 1 : 168, fig. 5.

Sarcophaga ochripalpis Johnston and Bancroft, 1920, Pr. Roy. Soc. Queensland, 32:23.

Sarcophaga peregrina Johnston and Tiegs, 1922, Rec. Austr. Mus., 13 : 177.

Geographical distribution: Australia, Formosa, and Hawaii.

***Sarcophaga dux* Thomson, 1869.**

Sarcophaga dux Thomson, 1869, Eug. Resa : 534

This species was described from Hawaii and subspecies are reported from Europe, North America, Australia, and India.

Sarcophaga orientaloides Senior-White, 1924.

Sarcophaga orientaloides Senior-White, 1924, Rec. Indian Mus., 26: 244, fig. 31.

Geographical distribution: India.

Among the material sent by Mr. Bryan there were examples from Honolulu (4 males and 3 females).

Sarcophaga albiceps Meigen, 1826.

Sarcophaga albiceps Meigen, 1826, Syst. Besch., 5: 22.

Sarcophaga albiceps Boettcher, 1912, Deut. Ent. Zeit., : 729, fig. 24.

Geographical distribution: Europe and India.

Three males and 2 females were received from Honolulu, collected by Owen Bryant.