

**Notes on the Species of RHIPIPHORUS of the  
United States.**

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The following essay is the result of a study made necessary by an attempt to name specimens which have been from time to time sent me.

The males have the antennae bipectinate or flabellate; vertex in front less convex and above more truncate than in the females; anterior tarsi feebly dilated, pubescent in most species, spinulose in two only. The form of the vertex and punctuation of the head have no specific value, while color has, if possible, still less. The prolongation of the maxillary lobes seems not to have generic value, specimens of *Macrosiagon* are before me in which the lobes are not at all visible while in *Rhip. limbatus* they are as long as in *M. dimidiatus* and the near association of these two species would certainly be very unnatural.

There are certain structural characters of great value which point out an arrangement of the species much more natural than any heretofore proposed, and when reduced to a tabular form the recognition of our species is made more certain.

In most of the species the prosternum is very slightly prolonged and the coxae are contiguous in their entire length. In *limbatus* and *linearis* the prosternum is prolonged into a slender process which is nearly as long as the coxae and which separates them in nearly their entire length.

In many species the second joint of the hind tarsus is much shorter than the third and flattened and rather broad above. In *cruentus* alone the second joint is longer than the third.

The following table will enable our species to be known.

Anterior coxae contiguous in their entire extent.

Anterior tarsi ♂ spinulose beneath; elytra very acute.

Basal lobe of thorax with a strong elevation; second joint of hind tarsi not flattened above.....**flavipennis.**

Basal lobe of thorax transversely notched at tip; second joint of hind tarsi flattened above.....**dimidiatus.**

Anterior tarsi ♂ with three joints pubescent beneath.

Second joint of hind tarsi shorter than third and flat above.

Thoracic lobe with obtuse elevation and a deep fovea on each side.

**bifoveatus.**

Thoracic lobe not elevated, surface regularly convex.

Metasternum very densely punctulate, punctures closer together than their own diameter.....**octomaculatus.**

Metasternum more shining, moderately punctured, punctures distant at least their own diameter.....**pectinatus.**

Second joint of hind tarsi longer than third, subcylindrical. Lobe of thorax neither carinate nor notched.....**cruentus.**

Anterior coxae separated in nearly their entire length by a slender prolongation of the prosternum; vertex scarcely elevated, obtuse and nearly impunctured.

Second joint of hind tarsi longer than half the third and not flattened above.

Epistoma oval .....**linearis.**

Second joint of hind tarsi shorter than half the third and flattened above.

Epistoma truncate.....**limbatus.**

**Rh. flavipennis** Lec. New Spec. 1866, p. 153; *abdominalis* ♀ Lec. l. c. p. 154.

*Male.*—Color entirely black, elytra pale yellow. Vertex slightly concave in front, moderately punctured, upper edge sometimes rounded, frequently subtruncate or even slightly emarginate. Antennae pale luteous. Thorax moderately densely punctured, a slight impression on each side of the middle in front, basal lobe strongly elevated, and produced at tip. Elytra contiguous for a short distance at base, rapidly narrower and very acute at tip. Body beneath black, not densely punctured. Legs black, spurs and claws yellowish. Second joint of hind tarsi scarcely shorter than the third, not flattened above.

*Var.*—First three segments of abdomen red. California.

*Female.*—Black, abdomen red. Elytra pale yellow at basal half, tip black. Antennae black, basal joint piceous, second somewhat paler.

Length .30—.40 inch; 7.5—10 min.

This species occurs in Pennsylvania, Georgia, Illinois and California, (Owen's Valley).

**Rh. dimidiatus** Fab. Spec. Ins. I., p. 332; Oliv. Ent. III., 65, p. 8, pl. 1, fig. 8, a—b; Hentz, Trans. Am. Phil. Soc. III., p. 464; Gerstaecker Monog. p. 21; *marginalis* ♂ Lec. New Species, 1866, p. 154.

*Male.*—Body entirely black, elytra pale yellow, with the outer and sutural margins and tip narrowly bordered with black. Antennae pale luteous. Thorax without apical impression, lobe feebly convex, transversely emarginate. Elytra flat, sparsely punctured, smooth, rapidly narrower and very acute at tip. Vertex in front moderately convex, smooth, very sparsely punctured, above rounded. Legs black, spurs and claws rufous. Second joint of hind tarsi shorter than the third and flattened above.

*Female.*—Body black, elytra with basal half pale yellow, apical half black. Antennae piceous, two basal joints rufous.

Length .20—.36 inch; 5—9 mm.

The male in my cabinet came from the collection of Count Dejean and was given me by Mr. Fred. Bates. It bears the name *flavicornis*.

The species thus far is known within the limits of New York, Florida and Missouri.

**Rh. bifoveatus**, n. sp.

*Male*.—Color entirely black, elytra brownish, gradually becoming black at base, a small arcuate space one fourth from the humerus pale luteous. Antennae pale brownish. Vertex in front convex, sparsely punctured. Thorax with a very deep impression, on each side at base, the two foveae separated by an obtuse elevation: lobe at tip not elevated, transversely notched. Elytra contiguous for a very short distance, rapidly narrower and very acute at tip, disc of each elytron with a broad moderately deep longitudinal channel, surface very sparsely punctured. Body beneath very sparsely punctured. Legs black, claws luteous. Second joint of hind tarsi shorter than the third, rather broadly flattened above. Length .44 inch; 11 mm.

One specimen in my cabinet from Illinois.

**Rh. octomaculatus** Gerst. Monog. Rhip. p. 22; *bicolor* Say, Journ. Acad. 1823, p. 275; *Sayi* Lec. Journ. Acad. IV., 1858, p. 21; *puncticeps* Lec. loc. cit. p. 20.

The color of this species is so extremely variable that it may be best described under its varieties. The general characters of all are as follows:

Thoracic lobe not elevated, tip obliquely truncate and concave. Elytra above nearly flat, feebly longitudinally concave, contiguous for a short distance at base, rapidly narrowing to tip and acute. Body beneath (metasternum especially) very densely and finely punctured and clothed with fine silken pubescence. Second joint of hind tarsus shorter than the third and rather broadly flattened above.

*Male*.—Antennae pale rufous, rami black. Vertex in front moderately convex, sparsely punctured.

*Female*.—Antennae black, two basal joints rufous. Vertex in front either flat or slightly concave, moderately densely punctured.

Var. **octomaculatus** Gerst.—Color ferruginous. Head black. Thorax with an elongate black spot on each side. Elytra each with three black spots, humeral, median and apical. Legs black, anterior femora rufous tipped with black.

The two thoracic spots are characteristic of this variety. The elytral spots may entirely disappear. One specimen is before me with the median spot alone remaining and merely as a black point. The legs and head may be entirely ferruginous.

Var. **puncticeps** Lec.—Body beneath, head and legs black. Abdomen rufous. Thorax rufo-testaceous without spots. Elytra similar in color, each with three spots as in the preceding variety but smaller.

Var. **Sayi** Lec., *bicolor* || Say.

*Male*.—Body beneath, head and legs black. Thorax and elytra rufotestaceous, the latter tipped with black.

*Female*.—Body black. Abdomen red. Head rufous or black. Legs black. Thorax uncolored. Elytra with three black spots as in *octomaculatus*.

Length .20—.52 inch; 5—13 mm.

This species occurs in Florida, Georgia, Kansas and Texas, and according to Gerstaecker, at Cayenne, S. A.

**Rh. pectinatus** Fab. Syst. Ent. p. 263; *sexmaculatus*, Fab. loc. cit; Oliv. Ent. III., 65, p. 7, pl. 1, fig. 6; *nigricornis*, Fab., *humeralatus*, Fab., *tristis*, Fab. Syst. El. II., p. 119; *ventralis*, Fab. loc. cit. p. 120; *sanguinolentus*, Germ. Ins. Spec. nov. 1824, p. 169; *dubius*, *impressus*, *maxillosus*, Mels. Proc. Acad. II., p. 316; *niger*, *fasciatus*, *ambiguus*, *longipes*, *thoracicus*, Mels. loc. cit. p. 317; *varicolor*, Gerst. Monog. Rhip. p. 25.

*General Characters*.—Body beneath rather sparsely punctured, punctures distant from each other at least equal to their own diameter, surface scarcely visibly pubescent. Thoracic lobe not elevated, transversely notched at tip. Second joint of hind tarsus shorter than the third and flattened above.

*Male*.—Vertex in front convex, very sparsely punctured, shining. Antennae rufous with black rami.

*Female*.—Vertex less convex, more distinctly punctured. Antennae black, two basal joints rufous.

Length .14—.32 inch; 3.5—8 mm.

The varieties are so numerous as to be entirely beyond description in a paper with the scope of the present. A few of the more important may be mentioned without names.

*Var. 1*.—Body entirely black above and beneath, abdomen ♀ red.

*Var. 2*.—Body as above. Thorax rufo-testaceous.

*Var. 3*.—Body black, elytra rufo-testaceous.

*Var. 4*.—As in 3, elytra tipped with black.

*Var. 5*.—As in 4, with a median elytral spot.

*Var. 6*.—As in 5, with a humeral spot.

*Var. 7*.—Black, abdomen red, thorax rufous, elytra black with sub-basal spot red.

The form described by Fabricius as *tristis* (*fasciatus*, *niger* Mels.) is composed of the more diminutive specimens which occur more especially in the Northern States. They are of a generally darker color.

This species is distributed over our entire country south of a line from New York to Kansas.

It will be noticed that this species varies in a manner similar to the preceding. The only difference that I can discover between the two is in the punctuation of the under side of the body.

**Rh. cruentus**, Germ. Ins. Spec. Nov., 1824, p. 168; Gerst. Mon. p. 27; *rufus*, Lec. Proc. Acad. VII, 1854, p. 225.—Thoracic lobe not elevated nor notched. Elytra contiguous for nearly half their length, narrowed in a curvilinear manner and not acuminate at tip. Second joint of hind tarsus longer than the third and sub-cylindrical.

*Male*.—Head moderately convex in front, shining, very sparsely punctured. Antennae black.

*Female*.—Similar to the male, antennae black, basal joint testaceous.

*Var. cruentus*, Germ.—Body and legs entirely black. Abdomen ♂ black, very rarely red, abdomen ♀ red, rarely black. Elytra red, apex and narrow basal margin black.

*Var.* ———.—Body as in the preceding. Thorax rufo-testaceous. Elytra with tip and base very narrowly black. Head black.

*Var. rufus*, Lec.—Body above, beneath and legs rufo-testaceous. Antennae above black with pale basal joint.

Length .20—.30 inch; 5—7.5 mm.

Occurs from Georgia to California.

This is the only species of the genus in our fauna in which the second joint of the hind tarsus is longer than the third.

**Rh. limbatus**, Fab. Ent. Syst. I., 2, p. 112; Oliv. Ent. III., 65, p. 6, pl. 1, fig. 5, a—b; Say, Bost. Journ. 1, p. 189; Gerst. Mon. p. 30.—Head pale rufo-testaceous, occiput frequently black, vertex smooth, convex, impunctured. Thorax similar in color with discal spot of variable size black, hind angles prolonged and slightly covering the elytral humeri. Elytra usually black, sometimes pale luteous with the entire limb, suture and base narrowly black. Body beneath pale rufo-testaceous, frequently with the sternal side pieces black. Anterior coxae separated by a slender, prolonged prosternum. Femora pale tipped with black; anterior tibiae black, middle and posterior tibiae pale, apical half black. Tarsi black, claws pale. Thoracic lobe not elevated nor notched at tip. Second joint of hind tarsus shorter than third and broadly flattened above.

*Male*.—Antennae black, two basal joints pale. *Female*.—Similar.

Length .24—.40 inch; 6—10 mm.

This species occurs from Pennsylvania to Texas.

**Rh. linearis**, Lec. New Species, 1866, p. 154.—Form linear, color piceous with iridescence. Vertex convex, smooth, impunctured. Thorax sparsely punctured, base on each side straight, hind angles not prolonged, lobe equilaterally triangular, tip not elevated nor emarginate. Elytra as in *limbatus*. Second joint of hind tarsus longer than half the third and not flattened above. Body beneath shining black, sparsely punctured. Femora black, tibiae and tarsi rufo-piceous.

*Male*.—Antennae black, two basal joints testaceous.

*Female*.—Unknown.

Length .16 inch; 4 mm.

This species agrees with *limbatus* in having the anterior coxae separated by a slender prolongation of the prosternum.

One male is known. Collected by Mr. Ph. J. Wild, in Kentucky.

Mr. Fred. Bates placed at my disposal a number of specimens with the original labels, which formerly made part of the collection of Count Dejean. These are as follows:

**R. dimidiatus.**

*R. flavicornis* = ♂ **dimidiatus**.

*R. humeratus* = **octomaculatus** var. **Sayi**. If this is the true *humeratus* Fab., the name should be substituted for *octomaculatus*.

*R. marginalis*, *ventralis*, *rubidus* = varieties of **pectinatus**.

*R. affinis*, *zonatus* = **cruentus**.

*R. discicollis* = **limbatus**.