SYNOPSIS OF THE NORTH AMERICAN SPECIES OF GORYTES Latr.

BY WILLIAM J. FOX.

GORYTES Latreille.

Euspongus Lepeletier de St. Fargeau, ibid.

For the full synonymy of this genus see Handlirsch's monograph.*

FEMALES.

Antennae strongly clavate. (Eyes large, strongly convex and long; mesosternum not carinated.) moneduloides.
Antennae not strongly clavate .......................... 2

2. First segment of abdomen coarctate at apex ............... 3
First segment of abdomen not coarctate, sessile or subpetiolar ............................................. 5

3. First recurrent nervure received by the first submarginal cell; wings hyaline throughout; submedian cell (anal area) of posterior wings terminating much before the origin of the cubital nervure; size small ......................................... bipunctatus.
Both recurrent nervures received by the second submarginal cell; wings with a fuscous cloud; submedian cell (anal area) not or terminating but little before the origin of the cubital nervure; size larger ........................................ 4

4. Enclosure of middle segment striated at base only; head, thorax, abdomen and legs spotted with yellow . mellinoides.
Enclosure of middle segment striated throughout; entirely black, except the second abdominal segment which is rufous ................................................................. rufocinctus.

5. Wings clear, without the usual fuscous spot ............... 6
Wings more or less fuscous, always with a cloud in the vicinity of the marginal and submarginal cells ......... 8

6. First abdominal segment subpetiolate, the apical margins of all the segments broadly clothed with pale pubescence ................................................... eximius.
First abdominal segment sessile ........................................ 7

Submedian cell of posterior wings terminating much before the origin of the cubital vein; thorax and legs black, not spotted; abdomen reddish in greater part, not marked with yellow; enclosure of middle segment striated basally.

Submedian cell of posterior wings not, or but slightly, terminated before the origin of the cubital vein; thorax and legs spotted with pale yellow; hind femora and two basal segments of abdomen, reddish, the abdominal segments above with pale yellow on their apical margins; enclosure of middle segment striated throughout.

Second ventral segment not at all angular.
Second ventral segment prominently angular.
Middle segment coarsely rugose throughout.
Middle segment not rugose, the furrow forming the enclosure broad, crossed longitudinally by coarse ridges; flagellum subclavate (third segment not fasciuate; second ventral with very large punctures toward the base).
Palpi dark; fourth dorsal abdominal segment without a fascia, or with a very short one.
Palpi in part yellow; fourth dorsal segment with a complete fascia.
Eyes converging but little toward the clypeus.
Eyes distinctly converging toward the clypeus.
At the most the middle segment and first segment of abdomen rufous; space between base of clypeus and fore ocellus as broad, or nearly so, as long.
 Entirely rufous, with yellow markings, the yellow bands of abdomen unusually broad; middle segment yellow; space between base of clypeus and anterior ocellus distinctly longer than broad.
Middle segment and first segment of abdomen more or less reddish.
Middle segment and first segment of abdomen not reddish.
Last dorsal segment with a well-developed pygidial area which is subtriangular and rugose; second discoidal cell with apical portion dark fuscous; legs variegated with red, black and yellow.
Last dorsal segment with the pygidial area poorly developed, short and broad, strongly punctured; second discoidal cell pale fuscous except its lower portion; legs red, with the tibie yellow in part.

According to Handlirsch, the second ventral segment of mystaceus, toward the base, is marked with deep fovee, while in campestris that segment has only larger punctures toward the base. According to the specimens before me, consisting of a ♂ and ♀ of mystaceus and a ♂ campestris, this statement should be reversed as campestris has the deep fovee and mystaceus the punctures.
15. Last dorsal segment yellow
16. Last dorsal segment black
17. Legs black; first dorsal segment not fasciate
18. Legs reddish, except base; first dorsal segment fasciate.
19. Mesosternum anteriorly sharply and strongly carinated; pygidium broad, not more than twice as long as its width in the middle.
20. Mesosternum anteriorly neither sharply nor strongly carinated; pygidium long, narrow, somewhat more than twice as long as its width in the middle (form very robust).
21. No distinct fuscous cloud in the second discoidal cell; front distinctly longer than broad; coxae and trochanters reddish, rarely obscure.
22. A distinct fuscous cloud filling the apical third of second discoidal cell; front fully as broad as long; coxae, trochanters and femora in part, obscure.
23. Wings, excepting the usual fuscous cloud in the vicinity of the marginal cell, hyaline; enclosure of middle segment with 14–16 close-set ridges.
24. Wings fuscous, the cloud in the vicinity of the marginal cell darker; enclosure of middle segment with 10–12 well-separated ridges.
25. Middle segment more or less coarsely sculptured.
26. Middle segment not coarsely sculptured, smooth.
27. Posterior surface of middle segment coarsely sculptured.
28. Only the basal enclosure of middle segment coarsely sculptured entirely or in part.
29. Wings with a strong yellow tinge on basal two-thirds.
30. Wings not yellow basally.
31. Sculpture of enclosure of middle segment consisting of even, radiating ridges; flagellum either entirely black, or with basal joints reddish.
32. Sculpture of enclosure of middle segment coarsely and irregularly rugose; flagellum yellow beneath, black above (markings bright yellow; first joint of flagellum distinctly shorter than the two following united).
33. Flagellum long, scarcely clavate, the first joint distinctly shorter than the two following united; clypeus entirely black; markings yellow.
34. Flagellum short, subclavate, the first joint but little longer than the following two united; clypeus whitish basally; marking whitish.
35. Femora, except apex, and the tibiae in part, black; flagellum yellow beneath, black above.
36. Femora in greater part, tibiae and tarsi, reddish; flagellum black, basal joints reddish (middle segment with two large yellow spots).
26. Flagellum long, setaceous; scape elongate much more than twice as long as broad at apex; middle segment with two yellow spots. \textit{atricornis.}

Flagellum shorter, a little clavate; scape short but little more than twice as long as its width at apex, middle segment not spotted. \textit{canaliculatus.}

27. Extreme base of enclosure of middle segment only striated. \textit{nevadensis.}


29. Wings scarcely yellow the stigma testaceous; markings palish yellow; dorsal segments 4 and 5 impunctate. \textit{simillimus.}

Wings with a tolerably yellow tinge, the stigma yellow; markings bright yellow; dorsal segments 4 and 5 with scattered punctures. \textit{angustatus}.

30. Dorsal segments 4 and 5 impunctate. \textit{phaleratus.}

31. Dorsal segments 4 and 5 with distinct, scattered punctures. \textit{venustus.}

32. Head and thorax black, ornamented with yellowish; clypeus black; first dorsal segment entirely yellow. \textit{Smithii.}

Head and thorax reddish-brown, including the clypeus; first segment yellow at apex, otherwise colored like thorax. \textit{floridanus.}

33. Wings subfuscous; clypeus entirely yellow; middle segment entirely black, pygidal area with sparse, shallow punctures. \textit{bipartitus.}

Wings hyaline, the marginal cell excepted; clypeus with base only yellow; middle segment with two rufous spots; pygidal area with deep, closer punctures. \textit{rufomaculatus.}

**Males.**

Antennae strongly clavate; hind tarsi unusually long and graceful. \textit{moneduloides.}

Antennae not strongly clavate; hind tarsi not unusually long. 2

2. First segment of abdomen coarctate at apex (abdomen black, the second and third dorsal segments with a lateral pale spot). \textit{bipunctatus.}

First segment not coarctate, sessile or subpetiolate. 3
3. Submedian cell of posterior wings terminating before the origin of the cubital vein ........................................ 4

Submedian cell of posterior wings not terminating before the origin of the cubital vein ........................................ 8

4. Second ventral segment prominently angular .................. 6

Second ventral segment not angular ................................ 5

5. First abdominal segment subpetiolate, apical margins of the segments broadly margined with pale pubescence; antennae short .................................................. eximius.

First abdominal segment sessile, the abdomen red in part, not pubescent; antennae long, slender ................................. pictifrons.

6. Middle segment coarsely rugose throughout .................... 7

Middle segment not rugose, the furrow forming the enclosure wide, crossed longitudinally by strong ridges; antennae shorter than head and thorax, joints 2-6 of flagellum strongly rounded-out beneath .................. nigritrons.

7. Antennae very long; palpi obscure .............................. mystaceus.

Antennae shorter; palpi in part yellow ............................. campestris.*

8. Middle segment more or less coarsely sculptured ............. 9

Middle segment not coarsely sculptured, smooth ................. 31

9. Dorsulum strongly punctured .................................. 10

Dorsulum not strongly punctured ................................ 20

10. First abdominal segment subpetiolate; last ventral segment bifid .................................................. 19

First abdominal segment not subpetiolate ......................... 11

11. Fifth ventral abdominal segment armed with a strong prominence at each side. (See fig. 1.) ...................... confertus.

Fifth ventral segment unarmed .................................. 12

12. Mesosternum dentate laterally (entirely red, with pale markings) .................................................. 13

Mesosternum not dentate ........................................ 14

13. Middle segment not at all yellow; abdominal fasciae narrow; fuscosus cloud of fore wings not extending beyond the apex of marginal and third submarginal cells ............ dentatus.

Middle segment yellow in greater part; abdominal fascia unusually broad; fuscosus cloud of fore wings extending to apex of wing ........................................ diversus.

14. Eighth and ninth joints of flagellum spinose beneath ........ 16

Eighth and ninth joints of flagellum not spinose, at the most tuberculate ........................................ 15

15. Enclosed space on middle segment smooth; middle segment and first and last abdominal segments more or less red; legs entirely red ........................................ tricolor.

Enclosed space on middle segment distinctly striated; middle

*See foot note, p. 518.
segment and first abdominal segment not red, the last segment yellow

16. Clypeus with a bunch of long, curved hairs in each angle ... 17
   Clypeus with the hair at angles not very long, not curved or bunched

17. Spine of ninth joint of flagellum large and distinct; head as wide as thorax; legs black and yellow ... hamatus.
   Spine of ninth joint of flagellum small, indistinct; head small, narrower than thorax; legs red and yellow ... microcephalus.

18. Wings fuscous, the cloud in the vicinity of the marginal cell darker; middle segment with two yellow spots ... denticulatus.
   Wings, except the usual fuscous cloud in the vicinity of the marginal cell, subhyaline; middle segment not spotted

19. Wings entirely yellowish, the marginal cell scarcely darker; antennæ entirely rufous. Length 11 mm ... laminiferus.
   Wings slightly yellowish basally, the marginal cell distinctly fuscous; antennæ dark above ... mirandus.

20. Last ventral segment emarginate or bifid, flagellum rather short, the last four joints enlarged, somewhat emarginate beneath (wings without a fuscous cloud) ... insolitus.
   Last ventral segment with a spine or process ... 21

21. Posterior surface of middle segment coarsely sculptured ... 22
   Only the basal enclosure of middle segment coarsely sculptured 27

22. Eyes very broad, their width equalling more than half their length, the space between them at base of clypeus about equal to the length of the latter in the middle; enclosure of middle segment irregularly rugose ... asperatus.
   Eyes as usual, their width scarcely equalling half their length, the space between the eyes at base of clypeus greater than the length of the latter in the middle; enclosure of middle segment longitudinally ridged ... 23

23. Wings with a strong yellow tinge on basal portion ... 24
   Wings not, or but slightly, yellow basally ... 25

24. Antennæ tolerably long, reaching a little beyond the scutellum; markings bright yellow ... atrifrons.
   Antennæ shorter, not reaching beyond the scutellum; markings whitish ... abosignatus.

25. Antennæ a little thickened apically, the joints irregular (legs black and yellow) ... canaticulatus.
   Antennæ not thickened apically, the joints more even ... 26

26. Femora except apex and tibiae in part yellowish; dorsulum unspotted ... atricornis.
   Femora, in greater part, tibiae and tarsi, reddish; dorsulum with a lateral stripe or spot ... decorus.

27. Only the base of the enclosure of middle segment with striae. ... 28
   The entire surface of enclosure of middle segment striated ... 29
28. Flagellum not thickened apically; wings scarcely yellowish.  

29. Wings distinctly yellowish; femora entirely yellow beneath.  

30. Flagellum thickened apically; wings yellowish basally.  

31. Dorsal segments 4 and 5 impunctate.  

32. Suture between dorsulum and scutellum foveolate.  

33. Flagellum rather long, the joints about twice as long as broad, prominently rounded-out beneath; wings with a yellowish cast.  

34. Wings in greater part dark fuliginous.  

35. Wings clear at apex; middle segment spotted with reddish.  

36. Antennae rather long, reaching to apex of scutellum.  

37. Abdomen with very broad fasciae; middle segment spotted with yellow; basal joints of flagellum reddish.  


2. Gorytes bipunctatus Say.  


Euspongus bipunctatus Dahlbom, ibid., p. 480; Cresson, Synopsis, p. 117.  


Georgi, Louisiana, Texas. A Q specimen, from Mexico, differs by the dark legs, absence of yellow spots of scutellum, and the band of first dorsal abdominal segment is broken into two spots.
being marked the same. It agrees with the group characters given by Handlirsch, on p. 347 of his work, except that the first recurrent vein is received by the second submarginal cell, instead of the first as in the female.

The spots on the second abdominal segment are occasionally absent, or enforced by the presence of an additional pair on the third segment.

3. Gorytes rufocinctus Fox.

_Gorytes rufocinctus_ Fox, Can. Ent., 1892, p. 153, ♀

Washington State. This may be the female of _piceus_ Hdl., which I have not seen.


_Gorytes piceus_ Handlirsch, l. c., p. 455, ♂

British Columbia. Unknown to me and may be the ♂ of _rufocinctus_. The face, antennae and legs are said to be more or less yellow, and the second dorsal laterally and the second ventral rufous-brunneous.

5. Gorytes mellinoides _n. sp._

♀.—Eyes diverging toward the clypeus, the latter convex, its anterior margin a little incurved medially; antennae long, slender, the first joint of flagellum longer than the scape and pedicellum united; suture between dorsulum and scutellum foveolate; mesosternum carinated anteriorly, with the epimerum and episternum of the mesothorax not separated; middle segment with the enclosure well marked, and large, divided by a central furrow and longitudinally striated on basal third, otherwise finely punctured; wings clear, a slight fuscous cloud including part of the marginal, second submarginal and part of third discoidal cells, nervures and stigma testaceous, submedian cell of posterior wings terminating at, or slightly before, the origin of the cubital vein; legs with the medial and hind tibiae spinose, the anterior tarsi with a distinct comb, pulvilli distinct; abdomen with first segment distinctly coarctate at apex, second segment much broader, sides rounded, pygidial area coarsely and sparsely punctured, not distinctly ridged laterally, second ventral strongly punctured. Black; clypeus, except apical margin and a basal spot, inner orbits, spot between antennae, scape, pedicellum and first flagellum joint basally beneath, line on pronotum and scutellum, the fore and medial coxae, trochanters and femora
beneath, spot at each side of first dorsal segment, an oblique spot on each side of the second, apical margin of the third dorsal and second ventral, all yellow; flagellum beneath, tegula and greater part of legs testaceous. Length 9 mm.


*Sphex mystaceus* Linné, Fauna Suecica, p. 412.

Gorytes mystaceus Handlirsch, l. c., p. 367, pl. II, f. 15; pl. III, f. 6. ♀♂

For full synonymy see Handlirsch, l. c.

Handlirsch records this species from America. I have only seen European examples.

7. Gorytes campestris Mūll.

*Vespa campestris* Müller, Linne’s Natursystem, V. II, 883.


Also recorded from North America by Handlirsch. I doubt the occurrence of either mystaceus or campestris in America, the specimens seen by Handlirsch being very likely labelled erroneously.


Gorytes nigrifrons Smith, Cat. Hym. B. M., IV, p. 368, ♀

Gorytes Bollii Cresson, Tr. Am. Ent. Soc. IV, p. 225 ♀

Gorytes nigrifrons Handlirsch, l. c., p. 376.

Nova Scotia (Smith); North Carolina, in Collection of U. S. Nat’l Museum; Texas. Through the courtesy of Mr. Samuel Henshaw, I have examined the type of *G. Bollii* Cr., and find it agrees exactly with Smith’s description of nigrifrons, which therefore corroborates Handlirsch’s action in uniting the two, although he had seen specimens of neither. The wide furrow, which forms the enclosure of middle segment, distinguishes this species from any of its congeneres, and by which character the ♀, heretofore unknown, may also be separated from either of the two preceding species.


Recorded from Connecticut by Handlirsch. Occurs in Mexico and Brazil. The ♀, which I have not seen, is said to be distinguished from its allies by its simple, non-emarginate, non-spinose or tuberculate antennæ, and by the first segment being not fasciate.

10. Gorytes confertus n. sp.

♀.—Eyes toward the clypeus very slightly converging; antennæ a little clavate, the scape longer than the pedicellum and first joint
of flagellum united, the latter joint much longer than the second; clypeus with anterior margin truncate, not barbate laterally; front strongly and sparsely punctured; dorsulum with large sparse punctures, those of the mesopleurae less strong; suture between dorsulum and scutellum foveolate; episternum and epimerum mesothoracis indistinctly separated, the mesosternum sharply carinated anteriorly and laterally; middle segment posteriorly with large punctures, the enclosure rather large, well-marked, with 14-16 close-set, ridges or striae; legs stout, the tibiae spinose, fore tarsi with a strong comb; wings clear, except the usual fuscous cloud, which includes the marginal and part of the second and third submarginal cells, nervures brown, stigma yellowish, submedian cell of posterior wings terminating at the origin of the cubital vein; abdomen strongly punctured, particularly the second ventral segment, pygidial area with large, elongate punctures, ridged laterally. Black; clypeus, labrum, mandibles except apex, scape, flagellum beneath, inner and posterior orbits, sometimes a line across the vertex, line on pronotum, tubercles, spot behind them, scutellum, postscutellum sometimes, a broad fascia at apex of dorsal segments 1-5, and apex of second and third ventrals more or less, all yellow; legs, including coxae, entirely reddish-testaceous. Length 8—8½ mm.

♂.—Resembles ♀ as to coloration but has a strong grayish sericeous reflection over the entire insect, and the tibiae and tarsi are more or less yellow. Eyes strongly converging beneath; clypeus with a fringe of hairs on each side, anteriorly, which are not bunched, however; joints 8 and 9 of flagellum somewhat tumid beneath, otherwise the antennæ simple; fifth ventral segment developed into a distinct lobe on each side (see figure 1). Length 8 mm.

Montana. Is remarkable for the peculiar modification of the fifth ventral segment of the male.


Gorytes tricolor Fox, Can. Ent., 1892, p. 149, ♀ .

New Mexico; Colorado; Montana. The color of this species
varies from back with the middle segment red to entirely rufous. The yellow ornamentation is usually the same in both forms, however.


California (Provancher). Unknown to me. Seems to be near tricolor.

13. Gorytes diversus n. sp.

♀.—Eyes parallel within; front with shallow punctures; space between the fore ocellus and base of clypeus distinctly longer than wide; clypeus strongly convex in middle; antennae rather longer than usual for species of this section, the flagellum but little thickened apically, its first joint more than one-third longer than the second, scape long and narrow, longer than the following two joints united; dorsulum, mesopleure and middle segment posteriorly with large, separated punctures; suture between dorsulum and scutellum foveolate; mesosternum carinated anteriorly, not laterally, the epimeron and episternum mesothoracis indistinctly separated; enclosure of middle segment well marked, with about 18 striae; tibiae and tarsi spinose, anterior tarsal comb well developed; wings with a fuscous cloud including the marginal, second and third submarginals and part of the third discoidal cells, a fuscous stain along the basal nervure, stigma yellowish, nervures black; abdomen strongly punctured, particularly ventrally, pygidial area with strong punctures, scarcely ridged laterally. Rufous; anterior and posterior orbits, the former narrowly, pronotum, greater part of mesopleure, scutellum, postscutellum, middle segment almost entirely, spot on medial and hind coxae; dorsal segments of abdomen except extreme base of second and the last usually, and greater part of ventrals 2-4, or 5, all yellow; apical antennal joints fuscous. Length 8½-9 mm.

♂.—Colored like the ♀, except in the following points: clypeus, mandibles, inner orbits broadly, scape beneath, dorsulum at sides, and the legs, more or less, yellow; rufous on middle segment and abdomen more extended. Fuscous cloud reaching apex of wing; clypeus not barbate laterally; antennae shorter and stouter, joints of flagellum rounded beneath, 8-10 subemarginate; eyes very slightly converging beneath; enclosure of middle segment smaller than in ♀, with about 14, rather feeble, striae; mesosternum dentate laterally. Length 8 mm.
Los Angeles, California (Coquillett). In collection U. S. Nat'l Museum.

14. Gorytes dentatus Fox.


Grand Canōn, Arizona (Townsend). This species has no yellow on the middle segment, and the yellow markings of abdomen are narrow, wanting entirely on three last segments.

15. Gorytes pygidialis n. sp.

♀.—Eyes diverging slightly toward clypeus; the latter scarcely convex; front strongly punctured, with a strong central furrow; scape about as long as the following two joints united, flagellum somewhat thickened apically, the first joint about one-third longer than the second; dorsulum, mesopleure and middle segment with large separated punctures, closest on posterior face of middle segment whose enclosure is scarcely defined, with about 16 coarse ridges; mesopleure indistinctly carinated, epimerum and episternum mesothoracis indistinctly separated; tibiae and tarsi strongly spinose, the anterior tarsi with a distinct comb; wings clear, except the fuscous cloud which includes the marginal, upper portion of second and third submarginals, thence extending to the basal nervure bordering the first submarginal and first discoidal cells; abdomen strongly punctured, pygidial area long and narrow, ridged laterally and with large punctures. Black; clypeus in part or entirely, mandibles except apex, scape more or less, inner and posterior orbits, basal joints of flagellum beneath and sometimes above, line on pronotum, tubercles, spot behind them, scutellum, postscutellum sometimes, femora and tibiae in part, fascia at apex of segments 4–5, last segment entirely or in part and apical margin of ventrals of 2 and 3, or 4, more or less, yellow; the width of the fasciae varies somewhat; legs reddish testaceous in greater part, basally obscure. Length 9-10 mm.

Var.—Antennae reddish-yellow; dorsal segments of abdomen except the base of 1 and 2, entirely yellow; a small yellow spot on each side of middle segment.

♂.—Eyes converging toward the clypeus but not strongly; clypeus barbate laterally, transverse; joints 2–7 of flagellum tumid beneath, the eighth and ninth submarginate; between the antennae a short, distinct carina; mesosternum distinctly carinated, both anteriorly and at the sides. Length 8 mm.
Montana; Colorado (Snow); Las Cruces, New Mexico (Cockerell). The ♀ is very like costalis, but is smaller and has the last segment yellow. If the ♂ of costalis, when discovered, presents no better characters for distinction than those of the ♀, the two will probably have to be united.


Texas; Algonquin (Nason) and Peoria, Illinois. A specimen from St. Augustine, Florida (Johnson) has the legs entirely reddish testaceous, only the two first segments margined with yellow and the fuscous of the wings is much more extended than is usual. I am indebted to Mr. Henshaw for the opportunity of examining the type of this species.

17. *Gorytes* hamatus Hdl.

*Gorytes hamatus* Handlirsch, l. c., p. 403, ♂, pl. 2, f. 17.


Texas (Belfrage); Colorado; Dakota; Montana; Washington State; Nevada; Los Angeles, California (Coquillett). This is a variable species—both in size and coloration. The middle segment is sometimes bispotted, and the legs may be yellow and black or the femora may be more or less reddish. The spine of the ninth antennal joint is much more distinct in some specimens than in others. Length 7–9 mm.

18. *Gorytes* microcephalus Hdl.

*Gorytes microcephalus* Handlirsch, l. c., p. 405, ♂.

Georgia (Handlirsch); Colorado. I have taken it in the latter part of June, in Camden County, New Jersey, but not commonly.


*Gorytes Pergandei* Handlirsch, l. c., p. 407, ♂.

Virginia and Illinois (Handlirsch). Unknown to me. The middle segment is said to be more coarsely sculptured posteriorly than in its allies, *microcephalus* and *barbatulus*, being "almost cicatricose."


Massachusetts (Packard); New Jersey; Georgia. The front in this species is fully as broad as long, and the pygidium is broader than usual.
   *Gorytes rugosus* Packard, l. c., p. 427, ♂.
   Brunswick, Maine (Packard). Unknown to me. This will, no doubt, eventually prove to be the ♂ of *nebulosus*.

22. Gorytes armatus Prov.
   Ottawa, Canada (Provancher). Unknown to me. This species is said to have the mandibles spined near the base on “superior” margin. The occurrence of such a character in *Gorytes* is questionable; and it is not unlikely that Provancher has been misled by the lateral bunches of hair, with which theclypeus of the males of this section is furnished, and which frequently present a waxy appearance, thereby resembling a spine to some extent. The removal of this character from consideration suggests the uniting of *armatus* with *rugosus*.

23. Gorytes barbatulus Hdl.
   *Gorytes barbatulus* Handlirsch, l. c., p. 408, ♂.
   Illinois and Texas (Handlirsch); Agricultural College, Mississippi (H. E. Weed); District of Columbia. The female specimens, doubtfully referred to *barbatulus* by Handlirsch, belong to *denticulatus*.

   Florida; Georgia; Louisiana; Mexico. Handlirsch is right in assuming Packard’s type to be a ♂, instead of a ♂, as I have examined the type. The middle segment may or may not be yellow-spotted, and the first abdominal segment is sometimes variegated with rufous. I have no doubt but that *denticulatus* is identical with *plaeidus*, which I have not seen.

25. Gorytes placidus Sm.
   East Florida (Smith). Unknown to me. I fully agree with Handlirsch in uniting *placidus* and *rufipes*.

   *Gorytes spilopterus* Handlirsch, l. c., p. 414, ♀, pl. I. f. 18.
   Colorado; Nevada; Montana; Washington State.
27. Gorytes pictifrons Fox.


Washington State. Seems to differ only from *mendicus* by having the enclosure of middle segment striated basally, a character liable to vary.


British Columbia (Handlirsch). Unknown to me.

29. Gorytes Coquilletii n. sp.

♂.—Eyes strongly converging toward the clypeus; the latter rounded behind, its anterior margin a little incurved; front with punctuation indistinct, apparently coriaceous; antennæ short, flagellum clavate, the first and second joints about equal in length, scape short and broad, longer, however, than the two following joints united; dorsulum and mesopleuræ finely and closely punctured; suture between dorsulum and scutellum foveolate; mesosternum not ridged, the epimerum and episternum mesothoracis separated; middle segment finely punctured, the enclosure large, well-defined and covered with about 16, oblique striae, the central furrow rather broad; legs stout, tibiae and tarsi spinose, the fore tarsi with a distinct comb; wings clear throughout, nervures and stigma black, submedian cell of hind wings terminating at the origin of the cubital vein; abdomen elongate, the segments not much constricted at the sutures, indistinctly punctured, finely so ventrally, pygidium with strong punctures, margined at the sides. Black; first three or four abdominal segments more or less, and hind femora, except base, reddish, antennæ beneath, clypeus, labrum, mandibles except apex, line on pronotum, tubercles, spot on scutellum, spot at apex of fore and medial femora, short stripe on the medial and hind tibiae exteriorly, two transverse spots on apical margin of the first abdominal segment and a long, sinuate stripe on each side of the apical margin of segments 2-4, whitish-yellow; tarsi dark; front and dorsulum brownish tomentose, that on clypeus, sides of thorax and in particular the middle segment, silvery. Length 7 mm.

Los Angeles, California, in April (Coquillett). In collection of U. S. Nat'l Museum.
30. Gorytes insolitus n. sp.

♂.—Head rather large; eyes converging toward the clypeus; the latter large, most prominent anteriorly, anterior margin truncate, not barbate, front finely and closely punctured, without a median impressed line; antenna tolerably stout, flagellum with joints 2–9 tuberculate beneath, particularly the sixth joint, from which joint the flagellum is suddenly thickened; scape short triangular; thorax finely and closely punctured, most strongly on mesopleura; meta-pleurc striated; suture between dorsulum and scutellum foveolate; mesosternum ridged anteriorly; enclosure of middle segment large, well defined, the stria coarse, not well marked; hind tarsi thick, scarcely spined, fore tarsi somewhat flattened; wings clear throughout, nervures and stigma black, submedian cell of hind wings terminating a little before the origin of cubital vein; abdomen short and broad, not constricted at the segments, finely punctured; ventrals 3–5 with a prominent transverse fringe of appressed yellow hair, last ventral bifid. Black; clypeus, labrum, mandibles except apex, spot between antennae, sometimes wanting however, inner orbits, scape, flagellum beneath, line on pronotum, tubercles, a spot behind them, scutellum, dot on postscutellum, apex of femora more or less, tibiae except within, fore and medial tarsi except last joint, a fascia at apex of segments 1–6, twice emarginate anteriorly and enlarged laterally, and apical margin of second ventral in part, sometimes, all yellowish; middle segment with silvery pubescence; hind tarsi dark. Length 6 mm.

Southern California; Nevada. The small size, stout form, and shape of antennae easily distinguish this species.


_Gorytes gracilis_ Handlirsch, l. c., p. 456, ♀ ♂.

Connecticut (Patton); Georgia (Handlirsch). Unknown to me.

32. Gorytes mirandus Fox.


Nevada.

33. Gorytes laminiferus n. sp.

♂.—Eyes but little converging toward clypeus the latter convex, rather small, transverse; front with large, shallow punctures; antenna long, scape broad, a little shorter than the following two joints united, flagellum thickest between middle and apex, first joint
longer than the second, joint 8 excised beneath, joints 9 and 10 much smaller; also excised beneath, the ninth indistinctly so. last joint rather long and slender; dorsulum and mesopleuron with large, rather shallow punctures; mesosternum carinated laterally and anteriorly; epimerum and episternum mesothoracis distinctly separated; middle segment posteriorly cicatricose, its enclosure very strongly defined, the striae coarse and rather irregular; legs long, tibiae and tarsi spinose, fore femora formed into a broad lamina; wings yellowish, including nervures and stigma, submedian cell of posterior wings terminating at the origin of the cubital vein; abdomen with first segment long and narrow, subpetiolate as in mirandus, apical segments distinctly punctured, last ventral segment bifid. Black; antennae entirely and base of wings rufous; clypeus, inner and posterior orbits, face below antennae, labrum, mandibles except apex, line on pronotum, tubercles, long spot behind them, scutellum, postscutellum, spot on each side of middle segment, and a broad fascia at apex of dorsal segments 1–6 and ventrals 2–4, entirely yellow; last two ventrals reddish; legs variegated with reddish, yellow and black, abdomen tomentose. Length 11 mm.

Washington State. Apparently close to gracilis, but differs in the enclosure of middle segment being striated throughout, coarse punctures of dorsulum, yellow wings, etc. Handlirsch does not mention the anterior femora in his description of the ♂ of gracilis, and it is therefore likely that they are not laminate as in mirandus and laminiferus.

34. Gorytes atrifrons Fox.
Gorytes atrifrons Fox, Can. Ent., XXIV, p. 151, ♀ ♂.

Nevada.

35. Gorytes albosignatus Fox.
Gorytes albosignatus Fox, ibid, p. 152, ♀ ♂.

Montana; Colorado (Gillette). The specimen from the latter locality, a ♀, measures but 7 mm. The basal spot of clypeus is sometimes divided.
36. Gorytes geminus Hdl.

*Gorytes geminus* Handlirsch, l. c., p. 478, ♀♂.

Virginia (Handlirsch). Unknown to me. The flagellum in both sexes is said to be entirely black, the ♀ thus being distinguished from both *atricornis* and *canaliculatus*. The ♂ has the flagellum joints about twice as long as broad, in which it agrees with *canaliculatus*, but differs thereby from *atricornis* ♂. *G. canaliculatus* (♂) has the flagellum beneath and two spots on middle segment yellow, whereas in *geminus* these parts are said to be black.

37. Gorytes vicinus Hdl.


Washington State (Handlirsch). Unknown to me. It is evidently close to *atricornis*; but the wings are said to be strongly tinged with yellow.

38. Gorytes atricornis Pack.


Canada; Maine; New Hampshire; Massachusetts; Washington State; Nevada. The middle segment may or may not be spotted.


*Gorytes canaliculatus* Packard, ibid., p. 428, ♀.

Canada. The flagellum of the ♂ is shorter than in *atricornis* and is yellowish beneath, and the enclosure of middle segment has 15–16 even striae.

40. Gorytes asperatus n. sp.

♀.—Eyes toward the clypeus distinctly converging, about as in *canaliculatus*; scape short, stout, subtriangular, about as long as the following two joints united; flagellum evidently a little clavate [last seven joints missing], the first joint about one-third longer than the second; clypeus rather long, transverse, feebly convex, its posterior margin nearly straight; front finely and closely punctured, faintly impressed, thorax finely and closely punctured, suture between dorsulum and scutellum foveolate; mesosternum sharply ridged; middle segment coarsely rugose, except on the sides near the base, enclosure large, strongly marked, covered with irregular rugae; legs stout, comb of fore tarsi distinct; basal two-thirds of wings yellowish, marginal cell fuscous, nervures dark, stigma yellow, submedian cell of hind wings terminating beyond the origin of the cubital vein; abdomen rather short and broad, finely punctured,
first segment not striated basally, pygidial area triangular, indistinctly margined at the sides, with large, sparse punctures. Black; clypeus except fore margin, labrum, mandibles except apex, inner orbits, antennae beneath, line on pronotum, tubercles, spot behind them, scutellum, line on metanotum (postscutellum), small spot on each side of middle segment, femora at apex and anterior pair beneath, tibiae except a spot within, tarsi except apical joints, a broad fascia on dorsal abdominal segments 1–5, and a spot on the apical margin of second ventral laterally, which at the extreme sides is enlarged and runs toward the base of the segment, all yellow. Length 8 mm.

$\delta$.—Similar to the $\varphi$ as the coloration, but the flagellum entirely black; eyes large strongly converging toward the clypeus, the space between them at the base of the latter about equal to half that at the vertex; clypeus but little shorter than broad; flagellum stout, a little thickened apically, the joints (first two excepted) about twice as long as broad, last joint a little longer than the preceding one; tibiae and tarsi scarcely spinose, hind tarsi thickened; wings but slightly yellowish basally; greater part of ventral segments yellowish. Length 7–8 mm.

Southern California. Distinguished from canaliculatus by the yellowish wings, particularly in the female, irregular sculpture of enclosure of middle segment, and much broader eyes of male, which give the head, seen from the front, a very transverse shape. There are four $\delta$ specimens before me from Washington State which I refer doubtfully to this species. The yellow markings are more restricted, there being no yellow on the tubercles and middle segment. The markings, also, are a paler yellow.

41. Gorytes decorus n. sp.

$\varphi$.—Eyes converging toward the clypeus, but a little less strongly so than in the two preceding species; front finely and closely punctured; clypeus transverse, somewhat convex, with large punctures; antennae tolerably long, not thickened apically, scape elongate, about as long as the first joint of the flagellum, the latter joint scarcely one-third longer than the second; thorax shining, indistinctly punctured; mesosternum distinctly carinated, the epimerum and episternum mesothoracis separated; suture between dorsulum and scutellum foveolate; middle segment irregularly rugose posteriorly,
the enclosure large, well defined, and covered with about 12 strong, somewhat wavy striae; tibiae and tarsi spinose; wings subhyaline, the marginal cell excepted, nervures brownish, stigma yellowish, submedian cell of posterior wings terminating much beyond the origin of the cubital vein; abdomen shining, almost impunctate, first segment not striated basally, pygidial area flat, rounded at apex, distinctly margined laterally, strongly punctured. Black; base of clypeus, scape beneath, sometimes a small spot on inner orbits beneath, pronotum, tubercles, a spot behind them, a stripe bordering the dorsulum laterally, scutellum, spot on metanotum, large spot on each side of middle segment, a fascia at apex of dorsal segments 1–5 and a narrow one at apex of ventrals 2 and 3 or 4, yellow; legs except base testaceous, the fore and medial femora more or less yellow beneath; basal half of flagellum beneath of the same color as legs, which color sometimes extends to the upper portion. Length 8 mm.

♂.—Colored like the ♀, but the clypeus entirely yellow and the flagellum entirely black; eyes strongly converging beneath, the space between them at the base of clypeus equal to somewhat more than half of that at the vertex; clypeus about twice as broad as long in the middle; flagellum long, somewhat setaceous, the joints more than twice as long as broad, the first two joints about equal in length; hind tarsi less thickened than in asperatus. Length 7–8 mm.

Montana. The color of legs, large spots of middle segment and almost want of yellow on orbits are good superficial characters to separate deorum from its allies.

42. Gorytes simillimus Sm.
   Gorytes simillimus Handlirsch, l. c., p. 500, ♀ ♂.

Occurs from Canada to Georgia (Handlirsch), westward through the more northern States to Washington. The spots on middle segment are not constant. A ♀ specimen from New Jersey, collected in the latter part of June, I refer to simillimus doubtfully. Its legs are highly colored with yellow and reddish, mandibles with a yellow spot basally, and the furrow between the metapleure and middle segment is foveolate throughout, whereas in typical specimens the foveae are confined to the top. Another specimen, a ♂, from Washington State has the enclosure of middle segment striated throughout.
43. Gorytes angustus Prov.


Vancouver (Provancher); Washington; California; Nevada. A variable species as to size and coloration. The abdomen in two (♂) specimens before me is densely tomentose so that when held in certain lights, its maculation is almost concealed.

44. Gorytes nevadensis Fox.

Gorytes nevadensis Fox, Can. Ent., XXIV, p. 150, ♂ ♂ .

Nevada.

45. Gorytes venustus Cress.


Hoplisus venustus Cresson, Synopsis, p. 280.

Gorytes venustus Handlirsch, l. c., p. 504.

Colorado; Texas; New Mexico (Sante Fé, Cockerell); Mexico (Handlirsch).

46. Gorytes Smithii Cress.


Hoplisus Smithii, Cresson, Synopsis, p. 280.

Gorytes Smithii Handlirsch, l. c., p. 531.

Illinois; Kansas. The type of this species is a ♂, and not ♂ as stated by Cresson.

47. Gorytes floridanus Fox.


Gorytes floridanus Fox, ibid., II., p. 196.

Florida. The eyes converge less toward the clypeus in this species than in Smithii.


Gorytes apicalis Smith, ibid., p. 369, ♂ .


Gorytes fuscoluteus Packard, ibid., VI, p. 425, ♂ .

Gorytes flavicornis Packard, ibid., p. 429, ♂ ♂ .

Gorytes phaleratus Handlirsch, l. c., p. 507, ♂ ♂ .

Occurs from Canada to Texas and Mexico; Colorado; Dakota. A variable species as the synonymy indicates.

49. Gorytes propinquus Cress.


Gorytes abdominalis Handlirsch, l. c., p. 510.

New Mexico; Texas. Not identical with abdominalis as supposed by Handlirsch.
50. *Gorytes abdominalis* Cress.

*Gorytes abdominalis* Cresson, l. c., p. 474, ♀ ♂ .

*Hoplisus abdominalis* Cresson, Synopsis, p. 270.

*Gorytes abdominalis* Handlirsch, l. c., p. 510.

Colorado.

51. *Gorytes bipartitus* Hdl.

*Gorytes bipartitus*, Handlirsch, l. c., p. 521.

Georgia.

52. *Gorytes divisus* Sm.


Georgia (Smith). Unknown to me. This differs only from *bipartitus*, apparently, by the suture between dorsulum and scutellum being smooth, not foveolate. It is very likely, however, as suggested by Handlirsch, that Smith's statement is erroneous.

53. *Gorytes rufomaculatus* n. sp.

♀ .—Eyes strongly converging toward the clypeus, somewhat less so than in *bipartitus*, however; front with large punctures, strongly impressed down the middle; clypeus convex, strongly punctured, about one-quarter broader than long, subemarginate in middle of anterior margin; antennæ shorter than in *bipartitus*, the flagellum subclavate; thorax smooth, impunctate; mesosternum distinctly carinated; suture between dorsulum and scutellum foveolate; enclosure of middle segment broad and short, well marked and divided by a longitudinal furrow; suture between metapleurae and middle segment not foveolate; legs robust, tibæ and tarsi spinose; wings clear, except the marginal cell, nervures testaceous, stigma yellow, submedian cell of hind wings terminating much beyond the origin of the cubital vein; abdomen short and broad, first segment impunctate, the following segments distinctly punctured, pygidial area rather long, coarsely punctured and distinctly margined laterally. Black; base of clypeus, inner orbits, line on pronotum, tubercles, spot behind them, scutellum except base, and a fascia at apex of dorsal segments 1–3, yellow; antennæ, legs, large spot on each side of middle segment, small spot on dorsulum at wings, tegulae and the first abdominal segment at the sides, rufous. Length 9–10 mm.

♂ .—Colored like the ♀ , but the clypeus entirely, a fascia on abdominal segments 4 and 5, and the fore tarsi, yellow; clypeus nearly as long as broad; antennæ shorter than in *bipartitus*, flagellum
with joints not rounded-out as in that species, the last 6 or 7 joints not twice as long as broad; seventh dorsal segment distinct, broad, rounded at apex; hind tarsi somewhat thickened. Length 8 mm.

Dakota; Montana: Colorado (Gillette).

54. Gorytes fasciatus n. sp.

♀.—Eyes strongly converging toward the clypeus; the latter convex, distinctly broader than long; front strongly punctured, with a medial impressed line; antennae much longer than in rufo-maculatus, joints of flagellum cylindrical, rather long; thorax impunctate; mesosternum distinctly carinated; suture between dorsulum and scutellum foveolate; enclosure of middle segment well-marked; suture between metapleure and middle segment foveolate above only, and is deeper than in rufo-maculatus; legs tolerably robust; wings yellowish on basal two-thirds; fuscous in marginal cell only, submedian cell of hind wings terminating much beyond the origin of cubital vein; abdomen long, dorsals 1 and 2 impunctate, the remainder strongly punctured, seventh dorsal distinct, rounded apically. Black; clypeus, inner orbits, face below antennae, labrum, mandibles except apex, scape and pedicellum, line on pronotum, tubercles, spot behind them, scutellum posteriorly, spot on each side of middle segment, fore femora beneath, tibiae and tarsi more or less, a broad fascia on dorsal abdominal segments 1–6, on ventrals 2 and 3 and spot on each side of ventrals 4–6, bright yellow; basal joints of flagellum, tegulae and greater part of legs, reddish. Length 10 mm.

Colorado. Differs from the two preceding in the yellowish wings, yellow spots on middle segment, broad fascia of abdomen, and by the suture between metapleure and middle segment being foveolate above.