Bees of the Genus Nomada From California

T. D. A. Cockerell

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BEES OF THE GENUS NOMADA FROM CALIFORNIA.

BY T. D. A. COCKERELL.

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11. Larger; second submarginal cell very broad below, and narrowed almost to a point above, so that the lower inner angle is very acute; tegula dull yellow, \textit{coquilletti}, Ckll. Smaller; second submarginal cell ordinary; basal nervure meeting transverso-medial, or slightly basal of it, \textit{esquitali}, Ckll.

12. First abdominal segment dark brown above, with a few light dots; apex entire; scape entirely dark, \textit{subruellis}, Ckll. First abdominal segment with a distinct light (yellow or reddish) band, \textit{subruella}, Ckll.

13. Abdominal bands (except first) continuously light yellow; scape yellow in front; apex of abdomen emarginate, \textit{subangusta}, Ckll. Abdominal bands ferruginous centrally on middle segments, yellow laterally; scape yellow in front, \textit{rhodosoma}, Ckll. (and other males?).

\textbf{Females.}

Large species with yellow-banded abdomen, and bright ferruginous hair on thorax, \textit{rhostricha}, Ckll. Not so colored, and usually much smaller, 1.

1. Abdomen black, with continuous light bands on the first two segments at least, or the black reduced to bands; a light spot before each upper corner of scutellum, \textit{angustata}, Ckll. Abdomen red, without entire bands on first two segments, if any, 4.


5. Basal nervure ending a little before transverso-medial, almost joining it; size a little larger; abdomen with interrupted yellowish-white bands, those on segments 3 and 4 deeply notched in front, \textit{marginella}, Ckll. Basal nervure ending a little beyond transverso-medial; abdomen red without light bands, except two whitish spots or a band on fifth segment; apical part of abdomen suffused with black, \textit{elegantula}, Ckll. 6.

6. Abdomen with large yellowish-white markings, pointed mesad on segments 1 to 3, forming entire bands on 4 and 5, \textit{davidi}, Ckll. Abdomen without such markings; basal nervure ending basal of transverso-medial, or rarely joining it, \textit{formulata}, Ckll. 7.

7. Base of first abdominal segment black right across; abdomen with a purplish luster; segments 2 to 5 with lateral cream-colored spots, \textit{angelarion}, Ckll. Base of first abdominal segment not black right across, or without black, \textit{angustata}, Ckll. 8.


Length 8 mm. or less, 13. Scape with conspicuous black stripe, \textit{crotchii}, Ckll. Scape without same stripe, \textit{crotchii}, Ckll. 14. Length at least to hind femora until Length 8 to nearly a median black line, \textit{crotchii}, Ckll. 15. Hind femora with red spot in front Hind femora red in front of middl

\textbf{Nomadida (Holonomadida) key.}

\textit{O.}—Length 12-13 mm. and \textit{N. edwardsii}, resen of red and yellow) legs on the metathorax. Lateral face-marks brown, the supraelyteal mark large and entire, abdomen with less blan- ments not or hardly re-present at summits of with less black, the a patch above, hind fem
8. First abdominal segment with a large black triangular mark in the middle; abdomen without light spots; mandibles simple,  

9. First abdominal segment not so marked, . . . . . . . .  

10. Face and front without black; at most a faint blackish stain above the antennae,  

11. Front with a great deal of black; mesothorax with a median black band,  

12. Third antennal joint hardly half length of fourth; anterior coxae simple,  

13. Third antennal joint over half length of fourth, . . . . .  

14. Abdomen with small lateral cream-colored spots; second and third submarginal cells much narrowed above,  

15. Abdomen without such spots; second submarginal cell broader above, . . . . . . . .  

16. Length about 10 mm.; hind femora with a black stripe behind,  

17. Length 8 mm. or less; hind femora with at most a black suffusion, . . . . . . . .  

18. Scape with conspicuous long dark hairs; mesothorax with a median black stripe,  

19. Scape without such hairs; mesothorax without a median black stripe, . . . . . . . .  

20. Length at least 10 mm.; metathorax black with two red spots; hind femora with no black stripe behind,  

21. Length 8 to nearly 9 mm.; metathorax, seen from above, red with a median black band, . . . . . . . .  

22. Hind femora with much black behind; scape with dark hairs; a red spot in front of middle ocellus,  

23. Hind femora red behind; scape without dark hairs; no red spot in front of middle ocellus, . . . . . . . .  

DESCRIPTIONS AND NOTES.

Nomada (Holonomada) hemphilii, sp. n.

—Length 12-13 mm.; black and yellow. Allied to N. superba and N. edwardsii, resembling the latter by the black and yellow (instead of red and yellow) legs, and the former by the absence of yellow spots on the metathorax. It differs from N. edwardsii also as follows: lateral face-marks broader above, with much black between them and the supracylpeal mark; flagellum paler beneath; yellow patch on scutellum large and entire (in edwardsii divided into two spots or patches); abdomen with less black above, the bands on second and third segments not or hardly contracted in the middle; a minute yellow spot present at summits of eyes; legs with a more orange-yellow color, and with less black, the anterior and middle femora yellow with a black patch above, hind femora black above except apically, anterior and
middle tibia wholly yellow, posterior tibia yellow with a small black stripe behind, all the tarsi yellow. The second and third submarginal cells are considerably contracted above, and the basal nervure ends only slightly basad of the transverse-medial. The postscutellum has a short yellow stripe.


Nomada (Holonomada) excurrens, sp. n.

♀.—Length about 12 mm.; black and yellow. Similar to *N. hemphilli*, except that the apical plate of the abdomen is broader and strongly notched (in *hemphilli* it is quite entire), and the transverse-medial nervure is strongly oblique (only slightly so in *hemphilli*). The hind tibiae are entirely yellow, without the black stripe seen in *hemphilli*.

*Hab.*—"So. Cal.," one (Coll. Acad. Nat. Sci. Phila.). This is so close to *N. hemphilli* that it may prove to be only a variety; yet it has characters which would exclude it from *Holonomada*, as that group is defined by Robertson.

Nomada (Holonomada) edwardsii, Cresson.

*Hab.*—Santa Clara county, Cal. (Coquillett). In Coll. U. S. Nat. Museum.

Nomada (Holonomada) edwardsii var. australior, v. nov.

♀.—Length 11 mm.; black and yellow. Differs from *edwardsii* by its smaller size; supracypeal mark larger (broader than long); lateral face-marks convex on the inner side and pointed above (concave on inner side above clypeus, and obliquely truncate above, in *edwardsii*); third antennal joint shorter, and paler beneath; ventral surface of abdomen wholly yellow beyond the second segment. The apical plate is entire, and the metathorax has a pair of yellow spots. From *N. citrina* it differs thus: posterior orbits only very narrowly yellow, and that little more than half-way up; no yellow spot below middle ocellus; flagellum black above, dull red beneath; third antennal joint a little longer than fourth, the two together a little shorter than scape, etc. The hind femora are practically all black behind, and all the tibiae have much black behind.

*Hab.*—Los Angeles county, Cal. (Coquillett). In Coll. U. S. Nat. Museum. Perhaps a distinct species.

Nomada (Holonomada) rhodotricha, sp. n.

♀.—Length about 13 mm., build of *N. superba*; black and red, abdomen with broad chrome-yellow or orange bands. Head and thorax very densely pubescent; face broad; middle ocellus) black; is of supracypeal mark an red lateral face-marks about level with end of notched, hence continue a broad posterior flagellum dusky above; upper margin of prothorax and, postscutellum and basal enclosure cuneate and nearly all of hind tarsi long and broad dark brown, stigma feathery above; basal medials, the latter very as in *N. superba*, but a without black; ventral

*Hab.*—"So. Cal.," fine and beautiful spe.

Nomada (Holonomada) heptaplecta, new sp.

♀.—Length about 10 thickly clothed with w beneath, dense and silky below; basal half of a face-marks irregularly ending abruptly at above mark; scape thick but flagellum black above a yellow beneath); joint yellow spot on tubercules clear, nervures of cells greatly contracted basad of transverse, especially the hind long, yellow; anterior femora convex anteriorly; yellow bands, that on the middle; apical plate with green, without m.
yellow with a small black spot and third submarginal cell very narrowly yellow, and not below middle ocellus; all antennal joint a little shorter than scape, etc. all, and all the tibiae have black stripes. Head and thorax very densely punctured, abundantly clothed with pale ferruginous hair; face broad; occiput and front (except a red patch below middle ocellus) black; face up to level of antennae (except narrow edges of supraelypeal mark and line half-way down edge of clypeus) red, the red lateral face-marks continuing above very broadly until a point about level with end of scape, where they are much narrowed and notched, thence continuing over eyes, and suddenly broadening to form a broad postorbital red band; antennae red, apical half of flagellum dusky above; third joint conspicuously longer than fourth; upper margin of prothorax, very narrow lateral margins of mesothorax, scutellum, postscutellum, metathorax except narrow lateral margins and basal enclosure connecting with a smaller apical triangle, tubercles, tegulae and nearly all of pleura, all red; legs bright red; basal joint of hind tarsi long and broad, and slightly dusky; wings reddish, nervures dark brown, stigma ferruginous; third submarginal cell much contracted above; basal nerve ending very slightly basad of transversomedial, the latter very slightly oblique; abdomen ornamented nearly as in N. superba, but the yellow is orange, and the fifth segment is without black; ventral surface orange with three black bands.

\textit{N. superba; black and red, ge bands.} Head and thorax very densely punctured, abundantly clothed with pale ferruginous hair; face broad; occiput and front (except a red patch below middle ocellus) black; face up to level of antennae (except narrow edges of supraelypeal mark and line half-way down edge of clypeus) red, the red lateral face-marks continuing above very broadly until a point about level with end of scape, where they are much narrowed and notched, thence continuing over eyes, and suddenly broadening to form a broad postorbital red band; antennae red, apical half of flagellum dusky above; third joint conspicuously longer than fourth; upper margin of prothorax, very narrow lateral margins of mesothorax, scutellum, postscutellum, metathorax except narrow lateral margins and basal enclosure connecting with a smaller apical triangle, tubercles, tegulae and nearly all of pleura, all red; legs bright red; basal joint of hind tarsi long and broad, and slightly dusky; wings reddish, nervures dark brown, stigma ferruginous; third submarginal cell much contracted above; basal nerve ending very slightly basad of transversomedial, the latter very slightly oblique; abdomen ornamented nearly as in \textit{N. superba}, but the yellow is orange, and the fifth segment is without black; ventral surface orange with three black bands.

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\textit{N. superba; black and red, ge bands.} Head and thorax very densely punctured, abundantly clothed with pale ferruginous hair; face broad; occiput and front (except a red patch below middle ocellus) black; face up to level of antennae (except narrow edges of supraelypeal mark and line half-way down edge of clypeus) red, the red lateral face-marks continuing above very broadly until a point about level with end of scape, where they are much narrowed and notched, thence continuing over eyes, and suddenly broadening to form a broad postorbital red band; antennae red, apical half of flagellum dusky above; third joint conspicuously longer than fourth; upper margin of prothorax, very narrow lateral margins of mesothorax, scutellum, postscutellum, metathorax except narrow lateral margins and basal enclosure connecting with a smaller apical triangle, tubercles, tegulae and nearly all of pleura, all red; legs bright red; basal joint of hind tarsi long and broad, and slightly dusky; wings reddish, nervures dark brown, stigma ferruginous; third submarginal cell much contracted above; basal nerve ending very slightly basad of transversomedial, the latter very slightly oblique; abdomen ornamented nearly as in \textit{N. superba}, but the yellow is orange, and the fifth segment is without black; ventral surface orange with three black bands.

\textit{N. superba; black and red, ge bands.} Head and thorax very densely punctured, abundantly clothed with pale ferruginous hair; face broad; occiput and front (except a red patch below middle ocellus) black; face up to level of antennae (except narrow edges of supraelypeal mark and line half-way down edge of clypeus) red, the red lateral face-marks continuing above very broadly until a point about level with end of scape, where they are much narrowed and notched, thence continuing over eyes, and suddenly broadening to form a broad postorbital red band; antennae red, apical half of flagellum dusky above; third joint conspicuously longer than fourth; upper margin of prothorax, very narrow lateral margins of mesothorax, scutellum, postscutellum, metathorax except narrow lateral margins and basal enclosure connecting with a smaller apical triangle, tubercles, tegulae and nearly all of pleura, all red; legs bright red; basal joint of hind tarsi long and broad, and slightly dusky; wings reddish, nervures dark brown, stigma ferruginous; third submarginal cell much contracted above; basal nerve ending very slightly basad of transversomedial, the latter very slightly oblique; abdomen ornamented nearly as in \textit{N. superba}, but the yellow is orange, and the fifth segment is without black; ventral surface orange with three black bands.
Hab.—"So. Cal.," two in Coll. Acad. Nat. Sci. Phila. Very distinct by the character of the anterior femora. Aside from this, the entirely black pleura and absence of supraelypeal mark distinguish it from N. rivicis, N. suda, N. vineta, etc.

Nomada (Micronomada) formula, Viezeck.

Hab.—San Pedro, Cal., July 11 (Cockerill). This has the second submarginal cell as in Robertson's genus Cephen, but I cannot separate the latter from Micronomada. N. flavipes, Prov. appears from the description to be near to N. formula, but not identical.

Nomada (Xanthidium) crotchi var. nigrier, n. var.

♀.—Length about 9 mm.; the dark markings of abdomen black (not ferruginous), sharply contrasting with the creamy-white bands; hind margins of segments narrowly subhyaline and pale brown; metathorax black without spots. Basal nervure meeting transverso-medial, or very slightly basad of it.


Nomada (Xanthidium) pascoensis, sp. n.

♂.—Length about 8 mm.; yellow and black. Head and thorax very densely punctured, hoary with white hair, which is dense on the face, but not so as to hide the surface; basal part of mandibles, labrum, elypeus (except a sutural spot) on each side, supraelypeal mark, lateral face-marks and a flame-like mark beneath eyes, lemon-yellow; the lateral face-marks fill in the whole space between the elypeus and the eyes, but level with the supraelypeal mark suddenly narrow, and continue along the orbital margin as a rather broad band which ends (slightly swollen) at the level of the antennae; thus the lateral face-marks above present some resemblance in outline to the head of a human femur; eyes green; scape much swollen, yellow in front and black behind; flagellum reddish-orange, the basal joints largely black above, apicall joint long and pointed; third antennal joint triangular, about half as long as fourth, joints beyond oblique, 5 to 7 or 8 with minute denticles; flagellum crenulated; subantennal patch on anterior part of pleura, upper margin of prothorax, tuberces, tegula, scentellum except margin, a small spot before each anterior corner of scentellum, and band on postscutellum, all lemon-yellow; metathorax all black; wings moderately dusky, stigma ferruginous; basal nervure almost meeting transverso-medial, a mere fraction basad of it; second submarginal cell quadrate; legs red; basal part of first four femora beneath, hind femora behind except apically, a suffused patch on hind tibia behind, and all the coxae, black; knees, anterior legs in front (more or less), middle tibiae at apex, yellow; at yellow, the segments blindly; first segment with the hind margin) ferrugineous; apical plate ferrously varied with yellow.

Var. a.—Somewhat s. 1. centellum.

Hab.—Pasco, Washing Var. a. Los Angeles con The front coxae exhibit Robertson's genus Centthidium, near to N. lacera.

Nomada (Xanthidium) decorum.

♂.—Length about 8 mm.; yellow and black; head more yellow; inner orbital margin at about level of eyes extending into yellow, but not excessively so, yet dull reddish beneath, bluish, joint conspicuously short punctured, nearly bare; legs red; basal part of first four femora beneath, hind femora behind except apically, a suffused patch on hind tibia behind, and all the coxae, black; knees, anterior legs in front (more or less), middle tibiae at apex, yellow; at yellow, the segments blindly; first segment with the hind margin) ferrugineous; apical plate ferrously varied with yellow. Var. a.—Somewhat s. 1. centellum.
middle tibia at apex, first joint of middle tarsi in front, and hind tibia at apex, yellow; abdomen closely and minutely punctured, lemon yellow, the segments black at base and more or less ferruginous apically; first segment with the basal half black, the apical half (except the hind margin) ferruginous centrally, with a yellow patch on each side; apical plate ferruginous, notched; venter black at base, otherwise varied with yellow and red.

Var. a.—Somewhat smaller; no light spots at anterior corners of scutellum.

Hab.—Pasco, Washington State, May 25, 1896 (Trevor Kinaid). Var. a, Los Angeles county, Cal. (Coquillett); in U. S. Nat. Museum. The front coxae exhibit a very small spine, showing some affinity to Robertson’s genus Centria; but the insect is best referred to Xanthidium, near to N. luteloides.

Xenada (Xanthidium) decempunctata, sp. n.

♂.—Length about 8 mm., rather slender, not very hairy (white hair on face, cheeks and sides of thorax), black and yellow. Eyes pale green; inner orbital margin presenting a double curve; mandibles except tips, labrum, clypeus, supraclypeal mark, lateral face-marks (rapidly narrowing from clypeus and ending in a sharp point on orbital margin at about level of antennae), stripe at top of eyes, and stripe beneath eyes extending half-way up cheeks, all yellow; scape swollen, but not excessively so, yellow in front, black behind; flagellum ordinary, dull reddish beneath, black above, last joint obtuse; third antennal joint conspicuously shorter than fourth; mesothorax extremely densely punctured, nearly bare of pubescence; upper border of prothorax, tubercles, narrow marginal stripe at sides of mesothorax, elongate spot between tegulae and scutellum, scutellum except margins, stripe on postscutellum, two round spots sublaterally on metathoracic enclosure, large subquadrate patches on metathorax, somewhat diamond-shaped spot behind tubercles, very large patch extending across pleura, and tegulae, all lemon-yellow; legs yellow; coxae black behind; hind femora black behind except at apex; anterior and middle femora, and all the tibia, with a black stripe behind, that on hind tibia covering nearly the whole surface, that on middle femora double (a broad and narrow stripe running parallel); middle and hind tarsi mostly black behind; wings fairly clear, dusky at apex, nervures and stigma dark brown; stigma large; second submarginal cell very narrow, higher than broad, receiving the first recurrent nervure at its middle; first submarginal cell considerably larger and longer than the other two combined; third greatly narrowed above; basal nervure ending well basad of the transverso-
medial; abdomen dull, not appreciably punctured, but very minutely roughened; apical margins of segments subhyaline brownish, this broader in the middle than at the sides; basal half of first segment black, the other half (except the margin) yellow, but the black sends a straight narrow band into the yellow in the middle line, extending about three-fifths the breadth of the yellow; there is also a sublateral small black spot on the yellow on each side near the hind margin, the same being repeated also on segments 2 to 5, which are similarly ornamented with yellow, except that the black invades it more in the middle line, the yellow on segments 2 to 4 being interrupted in the middle line; on segment 2 the black also sends a short tongue into the yellow at the sides; this description does not well indicate the complicated pattern, but it may be added that if the abdomen is viewed with the apex directed upward, the yellow on segments 2 to 4 has on each side a recognizable resemblance to the head of a bird; apical plate dark brown, deeply bifid; venter yellow, first segment with longitudinal black bands, third and fourth segments black at base; mesosternum with a large yellow patch.


**Nomada (Xanthidium) sanctacruzei**, _sp. n._

♀.—Length about 8 mm.; rather slender, black and yellow. Head and thorax with little hair; facial quadrangle about square; mandibles except apex, labrum, clypeus, supraelypeal mark, lateral face-mark (rather broad, ending obtusely at level of antennae), and stripe under eye extending about half-way up posterior orbits, all lemon-yellow; the black between the supraelypeal and lateral marks is broad, and sends a narrow tongue half-way down sides of clypeus; scape moderately swollen, yellow in front, black behind; flagellum long, ferruginous beneath, blackish above, ordinary in structure; third antennal joint about half-length of fourth; mesothorax entirely black, coarsely and very densely punctured; upper border of prothorax, tubercle (except black dot), tegulae, irregular (with a point directed upward and a longer one posteriorly) transverse patch on pleura, and two large spots on scutellum, deep yellow; postscutellum and metathorax entirely black; legs yellow, coxae mostly black, femora black above except at apex; the first four femora, seen from behind, are longitudinally divided into black and yellow areas, but the hind femora are all black behind except at apex; anterior and middle tibiae stained with blackish behind, hind tibiae very dark brown behind except narrow upper border; middle and hind tarsi largely suffused with brown; wings brownish, nervures dark brown; moderately, third greater a little basad of basal; a band on first segment on second and third segm. but not abruptly const. fifth segments broad the ment all yellow; apically, the bases of the segments yellow mark shaped so.

_Hab._—Santa Cruz Mts.

**Nomada (Xanthidium) subaliis**, _sp. n._

♂.—Length 6½ mm. clothed with long erect hairs; scape also hairy. Tegulae with basal nervure a little black, scutellums entirely black; tegulae somewhat raised; flagellum yellow band on first segment important ones, but I believe that the Californian should rank only as a subspecies of _subalius._

_Hab._—Los Angeles Co. Nat. Museum. Two speci.
brownish, third very minutely "
crease, this "
, but the black sends "
black line, extending "
The page indicates the "
"
red, knees and anterior femora in front pale yellow; anterior femora with a black spot at base behind; the other femora largely black behind; wings tinged brownish, stigma dark red; second submarginal cell triangular, very broad below, greatly narrowed above, third submarginal cell narrowed about half above; basal nervure ending distinctly basal of transverso-medial; abdomen with yellow bands; bases of the segments black, apical margins of the first four broadly ferruginous; on the third and fourth segments laterally are obscurely indicated lateral spots next to the ferruginous; yellow on first segment abruptly cut in the middle by black, that on the second segment greatly narrowed by a ferruginous backwardly projecting tongue; apical plate slightly notched; venter red (even to base) speckled with yellow, the yellow forming a curious pattern on the third segment.

Hub.—Santa Clara county, Cal. (Coquillett). In U. S. Nat. Museum.
It is a little uncertain whether this is a Xanthidium or a Nomada s. str. It resembles X. medecorum, CkII., from Oregon, but is easily distinguished by its much narrower, more parallel-sided abdomen, and the second submarginal cell as described.

Nomada Xanthidium ashmeadi, sp. n.

♀.—Length 10 mm.; black and yellow, not very hairy. Eyes sage-green; face a little broader than long; basal half of mandibles, labrum, elytral supraelytral mark (more than twice as broad as long), lateral face-marks, wedge-shaped mark at top of eyes, and narrow posterior orbit almost up to wedge-shaped mark, all deep yellow; lateral face-marks very broad, their upper margin extending from upper lateral corner of supraelytral mark obliquely upward (touching antennal socket) to a narrow truncation on the orbital margin about half-way between level of antennae and top of eye; a fine black line passes down side of supraelytral mark and upper half of elytral supraelytral mark, ending in a black circle looking like a minute ocellus; antennae stout; scape not swollen; yellow suffused with red in front, black behind; flagellum deep red, first segment with a black basal spot above, last blackish above; third antennal joint about three-quarters length of fourth; thorax coarsely and very densely punctured; upper border of prothorax, tubercles (which are conical-protuberant), tegula (except an orange-red spot), almost whole pleural spot before each anterior corner of scutellum, two large patches on scutellum joined posteriorly, postscutellum, two round spots on metastigmatic enclosure; the large patches and lateral spots on metathorax, all very deep yellow; legs yellow; coxae mostly black behind; first four femora with a black stripe behind; hind femora black behind except narrow border and broad apex; tibie striped with black behind; basal joint of hind small joints of tarsi more smoky, nervures fusceus, subquadrate, receiving the recurrent meeting transverso-medial; roughened: basal half of first and broad bases of second and second segment, and a reverse.

Hub.—Los Angeles county. Named after the well-known spots on the metathoracic one is smaller and has a different

Nomada (Phor) subgracilis, sp. n.

♀.—Length about 5 mm.; white hair; eyes gray; mand. anterior margin of elytrum, a to a very fine point somewhat seape rather stout, dark red pale ferruginous beneath, black joints projecting above over half-length of fourth; the but no other light markings: brown, the first four yellow in dish; marginal cell long; see and receiving the recurrent wing some distance basal of tr punctate, dark brown; first r. each side, and an obscure spot with more or less interrupted yellow laterally, but narrow in the middle; on the third to fin sublaterally by large dark yellow entire band falling below distinct rim; venter brown.

Hub.—"Cala," one in Coll. me it was confused with N. gos from California.

The remaining species are as understood by Robertson, from California.
low; anterior femora largely black behind; submarginal cell triple, third submarginal ending distinctly bands; bases of the broadly ferruginous; obscurely indicated st segment abruptly segment greatly narrowed; apical plate led with yellow, the cut.

U. S. Nat. Museum.

or a Nomada s. str. out is easily distinct abdomen, and the hairy. Eyes sage-

mandibles, labrum, and as long), lateral and narrow posterior yellow; lateral face
from upper lateral touching antennal sin about half-way

line passes down ending in black scape not swollen, flagellum deep red, blackish above; third

thorax coarsely (thorax, tubercles orange-red spot),

mer of scutellum, postscutellum, two

stitches and lateral oxe mostly black hind femora black striped with black

behind; basal joint of hind tarsi with a suffused black stripe behind; small joints of tarsi more or less reddish; wings strongly yellowish-smoky, nerves fuscous, stigma ferruginous; second submarginal cell quadrate, receiving the recurrent nerve at its middle; basal nerve meeting transverso-medial; abdomen rather broad, yellow, minutely roughened; basal half of first segment (a little produced in middle line), and broad bases of second and third segments, jet black; venter yellow, second segment, and a reversed V on first, black.

Hab.—Los Angeles county, Cal. (Coqillet). In U. S. Nat. Museum.

Named after the well-known hymenopterist of that institution. The spots on the metathoracic enclosure suggest N. decempunctata, but that is smaller and has a different venation.

Nomada (Phor) subgracilis, sp. n.

—Length about 5 mm.; head and thorax densely punctured, with white hair; eyes gray; mandibles except tips, labrum, rather broad anterior margin of clypeus, and triangular lateral face-marks (coming to a very fine point somewhat below level of antennae), all pale yellow; scape rather stout, dark reddish-brown, roughened, hairy; flagellum pale ferruginous beneath, black or nearly so above, apical margins of basal joints projecting above; third antennal joint about or slightly over half length of fourth; thorax black with a pallid spot on tubercles, but no other light markings; tegula dark red, punctured; legs dark brown, the first four yellow in front; wings dusky at apex, stigma reddish; marginal cell long; second submarginal little narrowed above, and receiving the recurrent nerve at its middle; basal nerve ending some distance basal of transverso-medial; abdomen finely rugosopunctate, dark brown; first segment with an oblique pallid stripe on each side, and an obscure spot nicide of each; second to fifth segments with more or less interrupted bands, which are broadened and pale yellow laterally, but narrow and become suffused with reddish toward the middle; on the third to fifth segments these bands are interrupted sublaterally by large dark brown spots; sixth segment with a pale yellow entire band failing laterally; apical plate large, entire, with a distinct rim; venter brown.

Hab.—“Cula,” one in Coll. Acad. Nat. Sci. Phila. Mr. Viecorck tells me it was confused with N. gracilis (from which it differs in venation) in the collection.

The remaining species are referred to the restricted genus Nomada, as understood by Robertson. I have not seen any species of Gnathius from California.
Nomada rubrica, Provancher, var. n.

♀.—A black stripe connecting the ocelli; hind femora with a black stripe behind. Wings strongly yellowish-smoky, basal nervure meeting transverso-medial, but rather on the basal side. Third antennal joint shorter than fourth. From N. grayi, Ckll., it is easily known by the venation, and absence of black on the cheeks.

Hab.—Los Angeles county, Cal. (Coquillett). In U. S. Nat. Museum.

Nomada subangusta, sp. n.

♀.—Length about 8 mm.; black, ferruginous and yellow; head and thorax with rather copious hair, dull brownish above, white below. Basal two-thirds of mandibles, labrum, clypeus, and lower corners of face, sending a line ending very sharply about half-way up orbital margin, all yellow; a narrow yellow stripe on lower third of posterior orbits; scape yellow (suffused with red basally) in front and sides, black behind; flagellum orange-ferruginous, more or less, blackened above, especially the basal half; third antennal joint conspicuously shorter than fourth; thorax densely punctured, black, tubercles pallid, but no other pale markings; tegulae ferruginous, hairy and punctured; legs ferruginous; anterior femora suffused with yellowish in front, and with a black stripe behind; middle femora black beneath except at apex; hind femora black behind and beneath except at apex, but the margins of the black suffused; anterior and middle tibiae with a suffused blackish spot; wings clear, dusky on apical margin, nervures fuscous, stigma ferruginous; second submarginal cell narrow, higher than long; basal nervure ending just basad of transverso-medial; abdomen with the basal half of first segment, and the bases of following segments more or less (but edged with ferruginous) black; apical margins of the segments very broadly ferruginous; bands pale yellow, that on first segment abruptly interrupted; that on second gradually narrowed to middle but not quite interrupted; apical plate rather long and narrow, deeply notched; shape of first segment long and narrow; venter ferruginous variegated with pale yellow.

Hab.—“So. Cal,” one from the W. J. Fox collection (U. S. Nat. Museum). Close to N. molocorum, Ckll., with which it nearly agrees in markings, color and pubescence; but it is a much narrower insect, especially in the first abdominal segment, than molocorum. It differs in the same manner from N. ruficornis, L., which it also much resembles. By the narrow first abdominal segment, and other characters, it resembles N. cordlegii, Ckll., but the latter has a much longer flagellum, and the abdomen is narrower in the middle.

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Nomada erythra, Bulla Tor.

♀.—Closely allied to simple; stigma orange-out markings; second, successively smaller pallid hind tarsi with dark halflong black of the transverse-Hab.—San Bernardino Museum.

Nomada rhodosoma, sp. n.

♀.—Length 7 mm.; black, ferruginous and yellow; head and thorax with rather copious hair, dull brownish above, white below. Ocelli on a black metathorax with a black scutellum with a decided tinge entirely red; third dusky, not very dark at all, but shorter a short distance behind. No black marks except a blackish stripe behind. Hab.—“So. Cal.,” one from the W. J. Fox collection (U. S. Nat. Museum). Close to N. molocorum, Ckll., with which it nearly agrees in markings, color and pubescence; but it is a much narrower insect, especially in the first abdominal segment, than molocorum. It differs in the same manner from N. ruficornis, L., which it also much resembles. By the narrow first abdominal segment, and other characters, it resembles N. cordlegii, Ckll., but the latter has a much longer flagellum, and the abdomen is narrower in the middle. For brighter color, the much hind femora not black but...
Nomada erythrea, Balla Torre.

♀.—Closely allied to *N. ultima*, Ckll.; mandibles and anterior coxae simple; stigma orange-brown; mesothorax and metathorax red without markings; second, third and fourth abdominal segments with successively smaller paliald lateral spots, easily overlooked; basal joint of hind tarsi with dark hair on inner side. The basal nerve ends just basad of the transverso-medial.


Nomada riodosa, sp. n.

♀.—Length 7 mm. Almost exactly like *N. erythrea*, but a little smaller, and the third antennal joint almost or quite as long as the fourth (in *erythrea* it is not over half as long). There is black between the ocelli, and a black stain in the middle of the metathoracic enclosure. Basal nerve ending scarcely basad of transverso-medial. Stigma ferruginous. Hind tibiae strongly tuberculate on the outer edge, which is not the case in *erythrea*.

*Hab.*—“So. Cal.”, one in Coll. Acad. Nat. Sci. Phila. Among the Oregon species this is related to *N. astori*, Ckll., and *N. corvallisensis*, Ckll. From *astori* it is easily distinguished by the much shorter fourth antennal joint and the absence of black marks at sides of first abdominal segment. From *corvallisensis* it is known by its lighter, brighter color, the much smaller punctures of mesothorax, and the hind femora not black behind.

Nomada californica, sp. n.

♀.—Length about 7½ mm.; also similar to *erythrea*, but easily distinguished by the characters given in the table. The head is very broad, and the upper parts of the head and thorax are conspicuously clothed with dark hairs, while the hair on the sides and under parts is white. Ocelli on a black patch; mesothorax with a blackish band; metathorax with a blackish band, becoming faint anteriorly; post-scutellum with a decided yellow tint; abdomen without black; antennae entirely red; third joint almost as long as fourth; wings rather dusky, not very dark at apex; stigma orange-ferruginous; basal nerve ending a short distance basad of transverso-medial; legs red with no black marks except on coxae; the hind femora have a very faint blackish stripe behind.

*Hab.*—“So. Cal.”, one in Coll. Acad. Nat. Sci. Phila. Among the Oregon species this is related to *N. astori*, Ckll., and *N. corvallisensis*, Ckll. From *astori* it is easily distinguished by the much shorter fourth antennal joint and the absence of black marks at sides of first abdominal segment. From *corvallisensis* it is known by its lighter, brighter color, the much smaller punctures of mesothorax, and the hind femora not black behind.
Nomada ultimella, sp. n.
♀.—Length about 6½ mm.; another red species similar to N. crythrothra, but distinguished by the characters given in the table. It is also near to N. ultima, Ckll., but easily separated by its smaller size, lighter color, with less black marking, and less prominent scutellum. Lower corners of face yellow; ocelli on a black patch; thorax without distinct bands, but the mesothorax and metathorax have barely indicated blackish median bands; sides of first abdominal segment with faint blackish stripes; second and third segments with small lateral yellow spots; stigma orange-fuscous; second and third submarginal cells both very greatly narrowed above; basal nervure ending a little basal of transverso-medial; third antennal joint a little shorter than fourth.


Nomada latifrons, sp. n.
♀.—Length about 9 mm.; a red species similar to N. crythrothra. Head transversely oval, face very broad, especially above; ocelli on a black patch which extends considerably laterad of them; a similar transverse black patch on front, joining ocellar patch by two bands; cheeks black except the broadly red orbital margin; mesothorax and metathorax each with a single black band; abdomen with a blackish dorsal suffusion on segment 3, and a slight stain on 4 and 5, but no other black, nor any yellow spots; legs red, coxae largely black behind; hind femora with about half the posterior surface black; third antennal joint a little shorter than fourth; wings strongly yellowish-smoky; stigma dark fuscous; third submarginal cell greatly narrowed above; basal nervure ending a short distance basal of transverso-medial; abdomen of the long and comparatively narrow type.

Hab.—Santa Cruz Mts., Cal.; two in U. S. Nat. Museum. Differs from N. crythrothra, Ckll. by the black markings, the finely roughened (not distinctly punctured) abdomen, and the much broader face; from N. corvalissensis, Ckll., by the very much broader face and much less coarsely sculptured mesothorax; from N. clarkii, Ckll., by its shorter head in proportion to its breadth, much narrower abdomen and different venation.

Nomada tiatianabulum, sp. n.
♀.—Length about 6½ mm.; a red species similar to N. crythrothra. Eyes pale gray; facial quadrangle a little longer than broad; extreme lower corners of face yellowish; face red entirely without marks; a rather prominent keel between antennae; ocelli on a small black patch; cheeks all red; antennae entirely red, third joint a trifle shorter than fourth; dorsum of thorax without hair; mesothorax and metathorax with a median the coxae all basal nervure abdomen red v. less golden; fr. pygidium narrow.

Hab.—Santa Cruz N. corvalissensis, sculptured mesot and yellow spots on sides of maculate face a shaped mark.

Nomada atrofrontalis.
♀.—Length a hairy (hair on se greenish-gray; fr. narrowed below from antennae up (broadly excepted red, except the others: flagellum little longer than tured, with a b. median black b. thorax (except wings and middle wings smoky, str. quadrate, nearly point above; bas transverse medial obscure yellow spe. a pair on dorsum e blackish suffusion.

Hab.—"So. Cal. to N. ultima, Ckll., of the third and different.

Nomada excellens, sp. n.
♀.—Length ab. and thorax quite l. of the sides and i
with a median blackish band; legs red without black markings, even the coxae all red; wings yellowish-smoky; stigma dull ferruginous; basal nervure ending a short distance basad of transverso-medial; abdomen red without yellow spots, hind margins of segments more or less golden; first segment with a median black bell-shaped mark; pygidium narrowly rounded at end.

Hab.—Santa Cruz Mts., Cal., one in U.S. Nat. Museum. Differs from

*N. coralliseris* by its lighter color and narrower and much more finely sculptured mesothorax; from *N. oregonica* by the absence of yellow spots on sides of second abdominal segment, the venation and the immaculate face and pleura. The name *tintinnabulum* refers to the bell-shaped mark.

**Nomada atrofrontata.** sp. n.

♀.—Length about 8 mm.; rather dark red, marked with black, little hairy (hair on scutellum dark, on sides of metathorax white); eyes pale greenish-gray; facial quadrangle a little broader than long, scarcely narrowed below; extreme lower corners of face yellowish; front black from antennae upward, and over to cheeks, leaving the orbital margins (broadly except at top of eyes, where narrowed to a line) red; antennae red, except the small second joint, which is dark, contrasting with the others; flagellum suffused with bluish-gray; third antennal joint a very little longer than fourth; mesothorax very densely and minutely punctured, with a broad median black band; scutellum with a narrow median black band; metathorax with a broad band; sides of prothorax (except tubercles, which are yellowish) black; area between wings and middle and hind coxae black; legs red, coxae with much black; wings smoky, stigma dull ferruginous; second submarginal cell large, quadrate, nearly square, parallel-sided; third narrowed almost to a point above; basal nervure ending a considerable distance basad of transverse medial; abdomen rather broad, shining, convex, red with obscure yellow spots on sides of third, fourth and fifth segments, and a pair on dorsum of fifth; third and fourth segments with some median blackish suffusion; first segment with a broad black band on each side.

Hab.—“So. Cal.,” one in Coll. Acad. Nat. Sciences Phila. Allied to *N. ultima*, Ckll., but the head is not so broad, and the proportions of the third and fourth antennal joints, and the venation, are very different.

**Nomada excellens.** sp. n.

♀.—Length about 11 mm.; robust, red marked with black. Head and thorax quite hairy, the hair of the dorsal parts pale brownish, that of the sides and under parts dull white; eyes pale yellowish-green;
head broad, facial quadrangle considerably narrowed below; front and cheeks marked with black as in *N. atrofrontata*, except that the red orbital margin is not narrowed quite to a line at top of eyes, there is a dull red spot before anterior ocellus, and a black line runs down from each antenna to middle of side of clypeus; antennae entirely red (including second joint), *third joint conspicuously longer than fourth*; mesothorax with three black stripes, the middle one much the broadest; scutellum prominent, it and the postscutellum red; metathorax black with a large red spot on each side; prothorax black or blackish except upper border and tubercles; pleura red; legs red, only the coxae marked with black; basal joint of hind tarsi broad, the short hair on the inner side shining pale golden; wings moderately smoky, nervures fuscous; stigma quite small, ferruginous; second submarginal cell rather strongly contracted above, *receiving the recurrent nervure far beyond its middle*; third submarginal cell very narrow, of the same breadth above as the second; basal nervure ending a moderate distance basal of transverso-medial; abdomen impunctate but minutely roughened, very broad, red, with a blackish stain on middle of second segment; no yellow spots; first segment with lateral cuneiform black marks, the points directed latero-posteriorly, and two smaller oblique marks in the dorsal region between them, all being near the base of the segment.

**Hab.**—"So. Cal.," one in Coll. Acad. Nat. Sciences Phila. Something like *N. clarkii*, but a very distinct species, not quite falling in *Nomada* s. str., as defined by Robertson.

**Nomada angelarum**, sp. n.

♀.—Length about 8½ mm., dark red with black markings, abdomen chestnut-red with a purplish luster, hind margins of segments broadly coppery-red. Hair of scutellum, mesothorax and vertex fuscous; of sides of metathorax, hind coxae, pleura, cheeks and face rather abundant, white; eyes gray; face a little narrowed below; upper part of clypeus, supraelypeal region, front, vertex, occiput and cheeks black, except that the orbital margins are broadly red, the red sending a pointed projection into the black on vertex; antennae long, red, first three joints more or less black behind; scape with dark hairs; face with some dark hairs amongst the white; third antennal joint conspicuously shorter than fourth; thorax densely rugoso-punctate; mesothorax with three black bands of nearly equal breadth; metathorax black, with an extremely obscure reddish spot on each side, and a pair of well-defined large round red spots on the enclosure; nearly all of pleura and tubercles red, but sides of thorax otherwise black; legs red; coxae largely black; middle femora black beneath at extreme base; hind femora strongly so; stripe behind; hind tibiae yellow on apical margin; much broader and distance basal of first segment with of the black nearly second to fourth; second largest, clusters of segments with yellow spots in all on fore cream-colored mark.

**Nomada davidsoni**, sp. n.

♀.—Length 9 mm. abundant white hair quadrangle not far mandibles, labrum, (spicuous) lateral far yellow; scape black ruminous beneath; reddish with a yellow part; scutellum dark a small orange spot; scutellum red in middle spicuous ferruginous; fore each middle coxae less black beneath, hind anterior tibiae with a black subapical spot or less distinct crease without; wings moderate brown border; second nervure meeting trapezoid moderately broad, marked markings; basal segments are pairs of
red below; front and
except that the red
top of eyes, there is a
line runs down from
entirely red (inner
than fourth); meso-
much the broadest;
metathorax black
or blackish except
only the coxae marked
hair on the inner
y. nervures fuscous;
arginal cell rather
of nervure far beyond
of the same breadth
crater distance basal
inately roughened,
of second segment;
black marks, the
er oblique marks in
base of the segment.
anes Phila. Some-
not quite falling in

markings, abdomen
of segments broadly
vertex fuscous; of
face rather abun-
dow; upper part of
cheeks black, the
red sending a
long, red, first
ark hairs; face with
joint conspicuously
mesothorax with
thorax black, with
and a pair of well-
dy all of pleura and
ck; legs red; coxae
extreme base; hind

femora strongly suffused with black behind; middle tibiae with a black
stripe behind; hind tibiae and tarsi strongly suffused with plumbous
behind; spurs yellowish-white; wings fairly clear, strongly darkened
apical margin; stigma dark ferruginous; second submarginal cell
much broader above than third; basal nervure ending a considerable
distance basad of transverso-medial; abdomen only moderately broad;
first segment with the basal two-fifths (at least) black, the hind margin
of the black nearly straight, though more or less crenulated; sides of
second to fourth segments with small cream-colored spots, that on
second largest, elongated in an antero-posterior direction; fourth and
fifth segments with small sublateral cream-colored spots (thus four
spots in all on fourth); venter red, second to fourth segments with
cream-colored marks, second with a large black blotch.

Hab.—Los Angeles county, Cal. (Coquillett). One in U. S. Nat.
Museum. Allied to N. oregonica, Ckl., but differs by the numerous
abdominal spots, the purplish-coppery colors of abdomen, and the
absence of a red spot before middle ocellus.

Namada davidsoni, sp. n.

♀.—Length 9 mm.; face, cheeks and sides of thorax with rather
abundant white hair; head and thorax rugose, black; eyes gray; facial
quadrate nearly square, but narrowed below; basal half of
mandibles, labrum, broad anterior margin of clypeus, and linear (inconspicuous)
lateral face-marks reaching about to level of antennae; dull
yellow; scape black, very hairy; flagellum blackish above and fer-
ruginous beneath; third antennal joint shorter than fourth; tubercles
reddish with a yellow spot; pleura with an angular red mark on lower
part; scutellum dark red, suffused with black in middle posteriorly;
a small orange spot before each anterior corner of scutellum; post-
scutellum red in middle and yellow at sides; metathorax all black;
tegulae ferruginous; a reddish patch, becoming yellow posteriorly, be-
fore each middle coxa; legs red; anterior and middle femora more or
less black beneath, hind femora black behind except at extreme apex;
fore femoral with a black stripe on outer side; hind tibiae with a large
black subapical spot on each side; knees and apices of tibiae with more
or less distinct cream-colored spots; hind tarsi strongly blackened
without; wings moderately dusky, stigma dull ferruginous with a dark
brown border; second submarginal cell little narrowed above; basal
nervure meeting transverso-medial on the basad side; abdomen only
moderately broad, minutely roughened, pale red with large cream-col-
cored markings; basal half of first segment black; on the first three
segments are pairs of large cream-colored triangles pointing mesad, the
first two pairs having a red spot on or near the hind margin, the third 
(on third segment) almost divided into two by an anterior intrusion 
of the red; fourth and fifth segments with broad cream-colored bands, 
deeply notched at the sides anteriorly, the notches rounded; venter 
red, with six rib-shaped (curved) whitish marks.

after Dr. A. Davidson, who has discovered many Californian bees. The 
general appearance of the insect recalls N. articulata, Sm., while the 
details of the markings on thorax and abdomen remind one of N. 
decempunctata, C. Ill.

Nomada subviinalis, sp. n.

♂.—Length about 7.5 mm.; pubescence of head and thorax quite 
abundant, brown dorsally, white on face, sides and under parts; head 
and thorax black, rugoso-punctate; facial quadrangle nearly square; 
mandibles (except tips), labrum, clypeus, lateral face-marks and nar-
row stripe extending half-way up posterior orbits, lemon-yellow; lat-
eral face-marks extending as rather narrow bands up anterior orbits 
as far as level of antennae, where they end abruptly, slightly bending in-
ward; seapo rather stout, yellow in front, black behind; flagellum long, 
bright ferruginious, with a black streak above on basal joints; third 
antennal joint much shorter than fourth; upper border of prothorax, 
tubercles, and a mark on lower anterior part of pleura, yellow; seutel-
lum with two small and obscure red spots; thorax otherwise wholly 
black; legs bright red; hind coxae black behind except at apex; middle 
and hind femora with a black spot beneath at base; tegula ferruginous; 
wings quite long, clear, dusky at apex; nervures fuscous; stigma rather 
small, dull ferruginous; second submarginal cell subtriangular, much 
narrowed above; basal nervure ending some distance basad of trans-
verso-medial; abdomen minutely roughened, bright orange-ferruginous 
apex pointed rather acutely; extreme base of first segment with a 
small black patch emitting three short prongs; sides of second and 
third segments with a large rounded yellow spot, not at all pointed 
medial; fourth segment with small lateral spots, sixth obscurely yellow; 
apical plate narrow, strongly notched; venter pale ferruginous marked 
with yellow, the yellow on second segment forming a larger patch.

Hab.—"So. Cal.," one in U. S. Nat. Museum. Related to N. 
articulata Cresson.

Nomada marginella, sp. n.

♂.—Length about 7.5 mm.; head and thorax black, rugoso-punctate, 
with white pubescence, rather abundant on face, checks, pleura, sides 
of metathorax, a 

square, but broad 
broad upper margin 
and extreme low 
orbital margin 
with reddish; sea-
ish above on base 
seen from below, 
tegula ferruginous 
before each ante-
middle, yellow a 
yellow marks; se-
ferruginous, exo-
with a black mar 
the basal and up 
surface of posteri-
mark at base and 
side of it; apical 
dusky at apex; 
second submargi 
narrowed above; 
slightly on the ba-
first segment wid-
jection backward 
two oblique small 
pyriform (pointed 
marks so deeply) 
on third, broad s 
slightly divided in 
mrk on fifth; bas-
the light mark, is 
blackish, and with 

Hab.—"So. Cal.

Nomada oregonica, et.

Hab.—"So. Cal.

Nomada bifureata, sp. 

♂.—Length ab-
long hair, the dor-
nearly square; in 
face-marks pale y
of metathorax, and middle and hind coxae; facial quadrangle nearly square, but broader above than long; mandibles except tips, rather broad upper margin of labrum, rather broad anterior margin of clypeus, and extreme lower corners of face sending a just visible line along orbital margin up to level of antennae, all yellow more or less tinted with reddish; scape black; flagellum dark ferruginous, becoming blackish above on basal two-fifths; third antennal joint shorter than fourth seen from below, but a trifle the longer seen from above; tubercles and tegulae ferruginous; a very small but very distinct dull yellow spot before each anterior corner of scutellum; postscutellum reddish in middle, yellow at sides; upper border of prothorax with two small yellow marks; scutellum, metathorax and pleura entirely black; legs ferruginous, coxae and trochanters nearly all black; anterior femora with a black mark beneath at base; middle and posterior femora with the basal and upper parts largely black or blackish; most of the hind surface of posterior femora black; hind tibiae with a yellowish-white mark at base and one at apex, the latter with a blackish cloud on each side of it; apical pointed process of hind tibiae unusually long; wings dusky at apex; stigma reddish-brown with a dark-brown margin; second submarginal cell quadrature, little narrowed above; third much narrowed above; basal nervure ending opposite transverso-medial, slightly on the basal side; abdomen rather narrow, pale ferruginous; first segment with basal half black, the black sending a pointed projection backward in the middle line; cream-colored marks as follows, two oblique small marks on the red of first segment, large lateral preform (pointed mesal) marks notched posteriorly on second, similar marks so deeply notched anteriorly as to be almost divided into two on third, broad band on fourth deeply notched laterally and very slightly divided in middle line, transversely placed hour-glass-shaped mark on fifth; base of fourth segment and practically all of fifth except the light mark, black; venter ferruginous more or less suffused with blackish, and with four crescentic cream-colored marks.


Nomada oregonica, Ckll.


Nomada bifurcata, sp. n.

♂.—Length about 6 mm.; head and thorax black, with abundant long hair, the dorsal hairs brownish, the others white; facial quadrangle nearly square; mandibles except tips, labrum, clypeus and lateral face-marks pale yellow; lateral face-marks broad below, rapidly nar-
rowing to a line which ends at level of antennæ; the face-markings are almost as in *N. sayi*, Rob., but the face is not so densely covered with hair as in that species; scape hairy, black, with a red spot at base in front; flagellum long, rather crenulated, dull reddish-brown beneath, blackish above; third antennal joint hardly more than half length of fourth, which is unusually long; thorax all black, except an obscure reddish spot on tubercles; tegula shining pale testaceous; legs yellowish-red, basal parts and femora beneath blackened; first four tibiae with a blackish stripe on the outer side, the stripe on hind tibiae more obscure; hair on inner side of basal joint of hind tarsi very pale yellowish; wings quite long, nearly clear, slightly dusky at apex; stigma dull reddish-brown; second submarginal cell square, not in the least narrowed above; third narrowed almost to a point above; basal nervure ending a short distance basad of transverso-medial; abdomen rather narrow, shining yellowish-ferruginous; basal two-thirds of first segment black; second segment blackish basally at sides; second, third, and fourth segments with yellow lateral spots, easily overlooked because of the yellowish-red of the abdomen; sixth segment with a very obscure short yellowish band; apical plate strongly bifurcated at end, with two sharp points; venter pale red without markings, the first segment mainly black.


*Nomada elegansita*, sp. n.

♀.—Length about 6 mm.; head and thorax black, moderately hairy; facial quadrangle nearly square, a little narrowed below; labrum dark; mandibles, narrow anterior margin of clypeus, and extremely narrow stripe on anterior orbits nearly up to level of antennæ, pale ferruginous suffused with yellow; scape black with a large red basal patch in front; flagellum ferruginous beneath, dark brown above, except first (third antennal) joint, which is red, with the margin prominent; third antennal joint a trifle longer than fourth; thorax black without light marks except the reddish tubercles; legs red; anterior and middle femora with a black stripe above and beneath; anterior and middle tibiae blackish behind; hind legs black or nearly so, femora beneath at apex, and tarsi beneath in middle, red; wings rather long, nearly clear, apex dusky; stigma practically black; second submarginal cell square, not narrowed above; transverso-medial nervure a little basad of end of basal; abdomen narrow, bright coppery-red; base and sides of first segment, spots on extreme lateral margins of second and third (followed by yellowish margins, and apex of fifth; six pale marks.

*Hab.*—Los. Nat. Museum by Coquillet Nat. Science; this cannot be.
The face-markings are densely covered with red spot at base in fish-brown beneath, than half length of except an obscure luteous; legs yellowed; first four tibiae hind tibiae is morearsi very pale yellow at apex; stigma not in the least above; basal nerv-medial; abdomen two-thirds of first sides; second, third lightly overlooked begement with a very bifurcated at end, markings, the first

Hab.—Los Angeles county, Cal., bearing number 397, one in U. S. Nat. Museum, marked “through C. V. Riley” presumably collected by Coquillett. Three others, marked “So. Cal.” are in Coll. Acad. Nat. Sciences Phila. The venation and other characters show that this cannot be the ♀ of N. bifurcata.