SCIENTIFIC NOTE

Oncideres Serville (Coleoptera: Cerambycidae) Key to Too Few: 34 Species Lost

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This note was prompted by failed attempts to identify a small species of *Oncideres* Serville using the key in Dillon and Dillon (1946). Only by abandoning the key and comparing the specimen with the illustrations and their associated descriptions was it possible to identify the beetle, *Oncideres minuta* Thomson, 1868.

So, why did the key not work? To figure that out, I followed the key backwards from *O. minuta* at couplet 57, to 56, to 55, and to couplet 54, at which point the trail went cold. The number 54 did not appear anywhere else in the key. Obviously, there was an error somewhere that resulted in a section of the key being isolated from the rest.

To find out what had gone awry, and to detect possible additional difficulties, I rearranged the key in indented form, as is the custom in botany. That exercise revealed two number errors: in triplet 3, 3b should go to 13, not to 12; and in couplet 40, 40b should go to 54, not to 47.

The error of 12 instead of 13 severs 15 species from the key (Oncideres albomaculata Dillon and Dillon, Oncideres argentata Dillon and Dillon, Oncideres bouchardi Bates, Oncideres cephalotes Bates, Oncideres chevrolatii Thompson, Oncideres dejeani Thompson, Oncideres fulvoguttata Dillon and Dillon, Oncideres germarii Thompson, Oncideres irrorata Melzer, Oncideres limpida Bates, Oncideres miniata Thompson, Oncideres multicincta Dillon and Dillon, Oncideres saga Dalman, and Oncideres sobrina Dillon and Dillon). The error of 47 instead

of 54 orphans 19 more (Oncideres aegrota Thompson, Oncideres bondari Melzer, Oncideres canidia Dillon and Dillon, Oncideres castanea Dillon and Dillon, Oncideres digna Bates, Oncideres fisheri Dillon and Dillon, Oncideres fulvostillata Bates, Oncideres guttulata Thompson, Oncideres humeralis Thompson, O. minuta, Oncideres ocellaris Bates, Oncideres pectoralis Thompson, Oncideres philosipes Dillon and Dillon, Oncideres poecila Bates, Oncideres pustulata LeConte, Oncideres putator Thompson, Oncideres schreiteri Bruch, Oncideres senilis Bates, and Oncideres voetii Thompson), for a total of 34 species inaccessible to users of the key. As published, the key works for 38 of the 72 species covered. Users should be alert to the possibility of similar errors in other keys in that work.

A corrected and indented version of the key is available online at **coleopsoc.org/supplement/ Aiello_2014_Supplement.pdf** on The Coleopterists Society website. To smooth the indented key's functioning, and when possible keep members of a couplet together, nine intra-couplet switches (1, 9, 33, 37, 48, 49, 54, 68, and 69) were made.

REFERENCE CITED

Dillon, L. S., and E. S. Dillon. 1946. The Tribe Onciderini (Coleoptera: Cerambycidae). Part II. Scientific Publications, Reading Public Museum and Art Gallery 6: 189–413.

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1. Pronotum with three brown vittae; elytra not granulate nor granulate-punctate
2. Elytra broadly margined laterally with dense white pubescence
 3a (triplet). Pronotal disk transversely rugose or multicarinate
quarter or third
6. Metasternum laterally broadly ochraceous; elytra with only a little white pubescence behind middle, base dark fulvous
 6. Metasternum entirely ashy; elytra with white pubescence from before middle to apex, basally brown repandator (p. 341) 5. Elytral maculation consisting of white or ochraceous spots, without trace of apical forked lines
7. Sternum laterally not white maculate; elytra not gray and ochraceous variegated
8. Antennae not fringed beneath with long hairs to apex, scape simply pubescent, not setose; elytra colored differently 9 9. Elytral gibbosities feeble; nearctic
10. Elytra with an indistinct fascia before or at middle
11. Elytral granules distinctly flattened, dense, more or less confluent on gibbosities crocala (p. 317) 10. Elytra without trace of a fascia
12. Elytra brownish-ochraceous, densely minutely irrorate with whitish, sometimes confluently so, basal granules more or less 'confined to gibbose portion
12. Elytra grayish-brown, with well-spaced, small, white maculae, slightly more numerous on apical third, granules well-separated, covering entire base behind the usual smooth portion ilaire (p. 319)
3b (triplet). Pronotum with but a single, glabrous, transverse carina
13. Elytra with entire basal third, behind usual smooth portion, very densely, minutely, uniformly granulate
14. Elytral median fascia indistinct, composed of minute maculae; length 17-27 mm
15. Elytra on apical third with glabrous forked lines
17. Metasternum laterally and metepisterna dark fulvous; elytra with a narrow, distinct, deeply sinuate, white fascia at
apical third, followed by a wide glabrous band which is minutely irrorate
16. Metasternum and metepisterna laterally ashy or white maculate
18. Elytral maculae white or fulvous, in addition to glabrous ones
19. Elytra with only white pubescent maculae, these are large, poorly defined and on entire disk except basal fifth; pronotal carina fine
18. Elytra with only glabrous maculae
evanescent posteriorly
abruptly behind
21a. Elytra glabrous, densely, minutely irrorate with whiteirrorata (p. 336)
21b. Elytra glabrous, with very numerous, ochraceous-fulvous tomentose maculae
22. General color of elytra pale gray or white, with ochraceous or fulvous maculae
 23. Sterna laterally broadly dark brown; elytra with ochraceous maculae rounded, basal granules arranged more or less in two transverse rows
transverse rows
24. Scutellum uniformly gray; elytra with glabrous markings forming a more or less distinct network within the gray pubescence; humeri with tubercle at external angle slightly more prominent than surrounding granules

bouchardi (p. 1	355)
24. Scutellum medially gray, lateral and apical margins broadly white; elytra with glabrous markings minute,	
rounded, sparse, well separated; humeri with the external tubercle no larger than surrounding granules	
argentata (p. 1	
22. General color of elytra brownish, with small or minute white maculae	25
25. Mesepisterna not maculate with white; pronotal carina on each side of disk dividing into four or five distinct	
carinules	
25. Mesepisterna maculate with white; pronotal carina dividing only on extreme sides	
26. Pronotum with a distinct ochraceous band before transverse carina saga saga (p. 3	321)
26. Pronotum not banded with ochraceous	27
27. Elytral maculation indistinct, minute, not forming rosettes nor larger maculae; granulation at base very	
sparse, at most eight granules on each elytron (exclusive of humeral) saga colombiana (p. 2	324)
27. Elytral maculae distinct, minute, with a few larger ones interspersed, the smaller ones often forming	
indistinct rosettes; basal granules more profuse, usually covering entire basal quarter saga amazona (p. 3	
3c (triplet). Pronotum with three to five glabrous maculae in a transverse row across middle, or with a single small macula at cent	
or rarely without glabrous markings of any sort (cingulata and quercus; U.S.A.)	
28. Metasternum distinctly white maculate laterally	
29. Elytra with a broad white fascia medially, reaching lateral margin, inner border irregular, broken by one large gap, whic	
divides the fascia into a larger anterior and a smaller posterior portion pittieri (p. 3	
29. Elytral fascia, if present, not divided into two portions	
30. Elytra finely white maculate, maculae rounded, very small, widely spaced, minute ones interspersed; basal granules f	
well separated, variable in size	
30. Elytra with colored or glabrous maculae, or both	
31. Elytra with a dark band behind middle modesta (p. 3	
31. Elytra without dark bands	
32. Elytral colored maculae present only behind middle, the basal portion grayish brown apicalis (p. 3	
32. Elytral colored maculae present on entire disk, base pale	
33. Elytra without glabrous maculae or punctures	
34. White macula confined entirely to sides of metasternum impluviata (p. 3	(73
34. White macula extending onto prothorax laterally	
33. Elytra with glabrous maculae or punctures	
35. Elytral glabrous markings in the form of punctures, disk very densely hoary-gray pubescent; body lengtl	1
over 17 mm	
36. Elytral granules placed largely toward humeri, only a narrow line of them extending toward scutellur	n,
maculae small, irregular, indistinct; humeri at external angle without a larger tubercle argentata (p. 2	(53)
36. Elytra more broadly granulate across base, maculae rounded, larger, more distinct, more or less outli	ned
with glabrous punctures; humeri at external angle with a very large tubercle amputator (p. 3	51)
35. Elytral glabrous markings in the form of rounded maculae, disk rather sparsely hoary-gray pubescent; be	ody
length less than 15 mm.	
37. Metasternal white macula confined to metasternum, metosternal side-pieces entirely ochraceous	
tuberculata (p. 3	196)
37. Metasternal white macula extending onto sides of prothorax	38
38. Elytra at middle with an indistinct fascia, colored maculae few in number (20 to 25 on each elytra	on),
large, indistinct, not seriate	192)
38. Elytra at middle not fasciate, colored maculae numerous (35 to 40 on each elytron), rather small,	
distinct, seriately arranged	
28. Metasternum immaculate, or not maculate with white laterally; i. e., the entire metasternum may be hoary or white, but ther	
no distinct white macula present	
39. Elytra ashy-brown, varied with a small number of equi-distant and equal-sized pale ashy spots, those on basal half cover	ing
large, rounded tubercles of small elevation, those towards apex covering shallow impressions pulchellus (p. 3	
39. Elytra never as above	40
40. Metasternum never brown pubescent, not distinctly maculate, the pubescence in some cases may be slightly variegate	d or
side-pieces, but no distinct maculae are present on metasternum proper	41
41. Elytra with a prominent gibbosity at middle of each base	
42. Elytra minutely irrorate with white, with much larger, distinct maculae interspersed behind basal third	
maxima (p. 3	
42. Elytra not irrorate	
43. Elytra white pubescent, maculate with minute, glabrous points and small, rounded, well separated, indistinc	
ochraceous maculae	
43. Elytra light gray pubescent, basal third brown pubescent, with scattered, small, ochraceous maculae on apic	
two-thirds	
41. Elytra not distinctly gibbose at base	44
44. Elytra uniformly whitish or pale fulvous-gray pubescent, maculate only with glabrous spaces	
45. Elytra with only a few very large granules on base, pubescence sparse, glabrous maculae very large, rounded	ed,

well-spaced; length 12 mm
45. Elytra with many, proportionately smaller granules, the pubescence dense, the glabrous maculae small,
elongate, with a band of densely placed maculae at apical third; length 22-28 mm cephalotes (p. 343)
44. Elytra not uniformly pale pubescent, sometimes with pubescent maculation
46. Antennae beneath densely fimbriate with long hairs to apex, scape pubescent and with many long setae which
give it a shaggy appearance; elytra largely white pubescent, at base irregularly bright fulvous pubescent, sides at
apical third with a short dark brown band, interrupted by irregular fulvous maculae quercus (p. 383)
46. Antennae beneath not densely fimbriate with long hairs to apex, scape pubescent, not shaggy; elytra not largely
white pubescent, or if so, then with distinct, rounded, colored maculae on entire disk, not fulvous pubescent on basal quarter
47. Elytra without grayish or white maculae
48. Elytra maculate from much beyond base and behind median fascia; scutellum ashy pubescent; Bolivia.
stillata (p. 381)
48. Elytra maculate from extreme base
49. Elytral fascia without punctures or granules
49. Elytral fascia punctate or granulate
50. Elytra with coarse, sparse granules at base, extending as fine, sparse granulate punctures to middle
of the indistinct median fascia, thence to apex as fine, sparse punctures; antennae with first two
proximal segments piceous, from third much paler guttulata (p. 380)
50. Elytra with dense, rather fine granules at base not attaining fascia, punctures to apex fine,
moderately dense, becoming less distinct posteriorly; antennae with only the most distal segments
noticeably paler
47. Elytra with grayish or white maculae, although colored ones may also be present
51. Elytra with a dense, grayish tomentose fascia at middle bucki (p. 358)
51. Elytra with, at most, an indistinct, thinly pubescent fascia
52. Elytra ferruginous at base, medially white pubescent, with several black granules, apex maroon, with
sparse, small, white points
52. Elytra not ferruginous at base nor maroon at apex
53. Elytra without fascia, with only minute, scattered, white maculae; body length at least 18 mm.
53. Elytra with whitish fascia at middle, with ochraceous maculae on basal third and apical third;
body length about 10 mm
40. Metasternum brown pubescent, or with distinct maculae of brown, ochraceous, or fulvous
54. Mesepimera and metepisterna fulvous or ochraceous, not brown
55. Elytra maculate only with white
56. Elytra coarsely, sparsely granulate at base, maculate only beyond basal third
57. Elytra sparsely white maculate; body length 9 mm minuta (p. 372)
57. Elytra densely white maculate; body length at least 16 mm aegrota (p. 330)
56. Elytra finely, densely granulate a base, entire disk maculate
58. Pronotal maculae rounded, lateral tubercles small; elytra cylindrical, nearly parallel-sided
58. Pronotal maculae strongly transverse, lateral tubercles very prominent; elytra with sides distinctly tapering.
humeralis (p. 331)
55. Elytra fulvous or ochraceous maculate (white maculae may be present also)
59. Elytra at middle with a broad, indistinct, whitish fascia of denser pubescence poecila (p. 389)
59. Elytra not fasciate
60. Pronotum with only three glabrous maculae; head scabrose
60. Pronotum with five glabrous maculae; head minutely punctate
61. Metasternum broadly vittate laterally; elytral granules confined to basal third, glabrous maculae punctate
and smaller than granules fisheri (p. 395)
61. Metasternum narrowly vittate laterally; elytral granules extending to apex although feebly elevated
posteriorly, nearly uniform in size
54. At least mesepimera and mesepisterna brown
63. Elytra with fulvous or orange-red maculae
63. Elytra hoary pubescent and orange-red maculate on apical two-thirds; body length 19 mm. or more
63. Elytra uniformly pubescent and fulvous maculate; body length 9-12 mm
64. Abdomen not vittate at sides, each sternite with an irregular, more or less elongate, glabrous macula
laterally; elytra with dense, fine, glabrous punctures
64. Abdomen with each sternite having a small white macula laterally; elytra very sparsely punctate, punctures
set in ,the middle of glabrous maculae
62. Elytra with whitish maculae; size moderate, at least 15 mm. in length
65. Elytra without glabrous maculae
65. Elytra with glabrous maculae

66. Elytra with whitish maculae, without trace of fascia
67. Elytral maculae entirely fulvous, base coarsely, irregularly granulate; body length 12-16 mm
67. Elytral maculae white or white ringed with ochraceous, base finely and usually sparsely granulate; body length always more than 16 mm.
68. Elytral fascia distinctly and rather broadly interrupted at suture, with all oblique anterior margin
68. Elytral fascia attaining suture, not oblique
69. Elytra without brown band posterior to fascia
70. Elytra with fascia distinct, basal granules moderately dense, small but distinct, the glabrous maculae small, sharply defined, and very numerous, the white maculae quite visible
putator putator (p. 359)
70. Elytra with fascia indistinct, basal granules very small and sparse
71. General body pubescence hoary-gray; elytral glabrous maculae minute, indistinct, well
separated; antennae light gray pubescent senilis (p. 362)
71. General body pubescence dark grayish-brown; elytral glabrous maculae minute, distinct,
closely set; antennae dark grayish-brown pubescent pustulata (p. 364)
69. Elytral fascia delimited behind by a more or less distinct brown or brownish band
72. Elytral white maculae small, but distinct, visibly ringed with ochraceous, usually seriate; pronotal maculae well marked ocellaris (p. 361)
72. Elytral white maculae indistinct, sometimes wanting, not distinctly ringed
73. General body pubescence hoary; elytral granules very minute, rather indistinct; humeri
without distinct granules; pronotal maculae indistinct; West Indies canidia (p. 365)
73. General body pubescence brownish-gray; elytral granules small but distinct; humeri closely
granulate; pronotal maculae distinct; southwestern U. S. A pustulata (p. 364)



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