

KEY TO SPECIES

GENUS *LACCOPTERA*

1. Claws with distinct only inner pecten, outer pecten very short or obsolete.
..... 8.
- Claws with distinct pecten on both inner and outer margin. Oriental region (subgenus *Sindiola*).
..... 2.
2. Pronotum with 4, 6 or 7 black spots. Body subtriangular or subtrapezoidal, only occasionally almost parallelsided, length/width ratio usually below 1.32.
..... 3.
- Pronotum immaculate. Body regularly parallelsided, length/width ratio above 1.33.
..... *L. (Sindiola) parallelipennis*
3. Pronotum with 6 or 7 black spots.
..... 4.
- Pronotum with 4 black spots.
..... *L. (Sindiola) novemdecimnotata*
4. Metathorax uniformly yellow.
..... 5.
- Metathorax partly black.
..... 6.
5. Subhumeral spot of elytra elongate, oblique, reach only slightly beyond border of disc, no humeral spots on explanate margin. At least four distal antennal segments infusate to black. Only continental Asia.
..... *L. (Sindiola) hospita*
- Subhumeral spot of elytra absent or very small, explanate margin with black humeral spots reaching slightly beyond border of disc. At most three distal antennal segments infusate to black. Only Java and adjacent islands.
..... *L. (Sindiola) multinotata*
6. Body subtriangular to subtrapezoidal. Two small spots on apex of elytral disc close to suture.
..... 7.
- Body almost parallelsided. One sutural spot on apex of elytral disc.
..... *L. (Sindiola) meghalayaensis*
7. Postscutellar tubercle lower, elytra in lateral view only slightly concave behind the top of the tubercle. Praescutellar lobe of pronotum without black spot. Black spots on elytra smaller and occupy smaller part of elytra.
..... *L. (Sindiola) vigintisexnotata*
- Postscutellar tubercle higher, elytra in lateral view distinctly concave behind the top of the tubercle. Praescutellar lobe of pronotum with black spot. Black spots on elytra larger and occupy larger part of elytra.
..... *L. (Sindiola) burmensis*

8. Oriental and Australopapuan subgenera.
..... 9.
- African and Madagascan subgenera.
..... 34.
9. Body oval to elongate, almost parallel-sided. Elytral base only slightly wider than pronotum.
..... 10.
- Body subtriangular to subtrapezoidal. Elytral base distinctly wider than pronotum. Dorsum usually with black spots (subgenus **Laccopteroidea**)
..... 14.
10. Elytral sculpture strong, with coarse punctures, wrinkles, and costae.
..... 11.
- Elytra only with punctation, without wrinkles or costae (subgenus **Sindiolina**).
..... **L. (Sindiolina) sedecimmaculata**
11. Length above 10 mm. Elytra with double margination (subgenus **Sindia**).
..... 12.
- Length below 9 mm. Elytra with simple margination (subgenus **Orphnodella**).
..... 13.
12. Body length below 11.8 mm. Base of pronotum on sides shallowly emarginate. Explanate margin of pronotum at base without spots. Apical process of aedeagus broad, truncate or shallowly emarginate.
..... **L. (Sindia) depressa**
- Body length above 11.9 mm. Base of pronotum on sides deeply emarginate. Explanate margin of pronotum at base usually with spots. Apical process of aedeagus narrow and rounded.
..... **L. (Sindia) sulcata**
13. Elytra uniformly black, pronotum black with two yellow spots on anterior margin.
..... **L. (Orphnodella) foveolata**
- Elytra and pronotum yellow with brown pattern.
..... **L. (Orphnodella) jawalagiriana**
14. Base of explanate margin of pronotum without black spots. Oriental Region, both continental and insular.
..... 15.
- Base of explanate margin of pronotum with black spots. New Guinea and NE Australia.
..... **L. (Laccopteroidea) impressa**
15. Spots in anterior half of elytra form more or less complete transverse band. Borneo and Java.
..... 16.
- Elytra in anterior half without transverse band.
..... 17.
16. Explanate margin of elytra without sutural spot. In posterolateral part of elytra two spots. Distinct irregular striation of pronotal disc.
..... **L. (Laccopteroidea) discreta**

- Explainate margin of elytra with sutural spot. In posterolateral part of elytra only one transverse spot. Pronotal disc without sculpture, at most with fine pricks or barely visible folds.
..... **L. (*Laccopteroidea*) *fasciata***
17. Explainate margin of elytra with sutural spot.
..... 18.
- Explainate margin of elytra without sutural spot.
..... 32.
18. Small, length below 9.5 mm. Apical part of aedeagus in profile straight. Elytral pattern variable.
..... 19.
- Large, length above 9.7 mm. Apical part of aedeagus in profile S-shaped. Elytral pattern of regular 14 spots on red background.
..... **L. (*Laccopteroidea*) *quatuordecimnotata***
19. Humeral spots extend to anterior margin of explainate margin of elytra.
..... 20.
- Humeral spots do not extend to anterior margin of explainate margin of elytra or absent.
..... 21.
20. Small, length below 9.0 mm. Postscutellar tubercle less prominent. Only Yunnan Province in S China.
..... **L. (*Laccopteroidea*) *prominens***
- Large, length above 9.0 mm. Postscutellar tubercle prominent. Only Mindoro Island of the Philippines.
..... **L. (*Laccopteroidea*) *schultzei***
21. Explainate margin of elytra without humeral spots.
..... 22.
- Explainate margin of elytra with humeral spots.
..... 23.
22. Ground colour of elytra red or reddish-brown. Body almost oval. Elytral base moderately wider than pronotum. Elytral sculpture very strong, with numerous folds, wrinkles, and costae of rugose appearance.
..... **L. (*Laccopteroidea*) *yunnanica***
- Ground colour of elytra yellow to yellowish-brown. Body subtriangular. Elytral base distinctly wider than pronotum. Elytral sculpture moderate, without transverse folds or wrinkles, not rugose.
..... **L. (*Laccopteroidea*) *nepalensis* (pale form)**
23. Species from continental Asia and neighbouring islands.
..... 24.
- Species from Sunda Islands and Moluccas.
..... 26.
24. Ground colour of elytra yellow to yellowish-brown. Body subtriangular. Elytral base distinctly wider than pronotum. Elytral sculpture moderate, without transverse folds or wrinkles, not rugose.
..... 25.

- Ground colour of elytra red or reddish-brown. Body almost oval. Elytral base moderately wider than pronotum. Elytral sculpture very strong, with numerous folds, wrinkles, and costae of rugose appearance.
- **L. (*Laccopteroidea*) *yunnanica*** (form with humeral spots)
25. Humeral spots extend to humeral angles. Postscutellar elevation low. Third interval only slightly convex, indistinctly higher from remaining intervals. Abdomen mostly black with yellow margins. Ground colours of elytra pale yellow.
- **L. (*Laccopteroidea*) *fruhstorferi***
- Humeral spots do not extend to humeral angles. Postscutellar elevation high. Third interval distinctly convex on whole length and fifth interval convex at least in the middle, both more convex than neighbouring intervals. Abdomen usually uniformly yellow, occasionally bases of sternites infusate. Ground colours of elytra pale deep yellow to yellowish-brown.
- **L. (*Laccopteroidea*) *nepalensis*** (typical form)
26. Spots on pronotal disc small, widely separated from basal margin of pronotum, sometimes obsolete. Usually insular endemics.
- 27.
- Spots on pronotal disc large, usually extending to basal margin of pronotum or separated from the margin by a narrow line. Widespread species in southern Sunda Islands, from Sumatra to Flores.
- **L. (*Laccopteroidea*) *sedecimnotata***
27. Abdomen black in the middle.
- 28.
- Abdomen yellow in the middle.
- 30.
28. Body stout, length/width ratio 1.14-1.20, subtrapezoidal, distinctly convex in postscutellar area. Inner pecten of claws extends at least to 1/4 length of the claw.
- 29.
- Body slim, length/width ratio 1.20-1.29, oval, indistinctly convex in postscutellar area. Inner pecten of claws very short, reaches only slightly beyond margin of the claw. Endemic to Timor and Wetter islands.
- **L. (*Laccopteroidea*) *permodica*** (form from Timor)
29. Larger, length above 8.5 mm. Elytral marginalia broader and less declivous, humeral angles distinctly marked. Only one black spot in apical part of each elytron. Endemic to Sumba.
- **L. (*Laccopteroidea*) *sutteri***
- Smaller, length below 8.1 mm. Elytral marginalia narrower and more declivous, humeral angles indistinctly marked. Two or three black spots in apical part of each elytron. Endemic to Tenimber and Timor.
- **L. (*Laccopteroidea*) *fallax*** (form from Timor)
30. Ground colour of elytra yellow to yellowish-brown. Anterior margin of pronotum regularly rounded, maximum width of pronotum approximately in the middle. Surface of pronotal disc usually distinctly punctate or wrinkled, rarely smooth and glabrous. Species outside Sulawesi.
- 31.

- Ground colour of elytra reddish-brown. Anterior margin of pronotum only slightly rounded, maximum width of pronotum in front of the middle. Surface of pronotal disc usually impunctate or finely punctate, dull. Endemic to Sulawesi.
 **L. (*Laccopteroidea*) *sculpturata***
31. Slim, length/width ratio 1.20-1.29, body oval. Elytra with small but numerous black spots. Inner pecten of fore claws very short, reaches only slightly beyond margin of the claw. Endemic to Timor and Wetter islands.
 **L. (*Laccopteroidea*) *permodica*** (form from Wetter)
- Stout, length/width ratio 1.14-1.20, body trapezoidal. Elytra with large but not numerous black spots. Inner pecten of fore claws extends at least to 1/4 length of the claw. Endemic to Tenimber and Timor.
 **L. (*Laccopteroidea*) *fallax*** (form from Tenimber)
32. Humeral spots, if present, narrow and do not extend to lateral margin of explanate margin of elytra. Elytral disc usually maculate on reddish ground colour. Species from Sunda Islands and Philippines.
 33.
- Humeral spots very broad and extend to lateral margin of explanate margin of elytra. Elytral disc mostly dark brownish, without distinct spots. Only Guizhou province in S China.
 **L. (*Laccopteroidea*) *cheni***
33. Elytral punctation very regular, also on sides and posterolateral part of disc, although additional punctures in posterolateral part of disc may slightly disturb the regularity. Elytral spots usually smaller and more irregular in shape. Elytral disc never black. Sunda Is. and Philippines.
 **L. (*Laccopteroidea*) *tredecimpunctata***
- Elytral punctation partly irregular, especially on sides and posterolateral part of disc, sometimes whole posterolateral part of disc irregularly punctate. Elytral spots usually larger and more regular, circular or oval. Elytral disc often partly or completely black. Only Philippines.
 **L. (*Laccopteroidea*) *tredecimguttata***
34. Body subpentagonal, elytral disc usually with large, conical postscutellar tubercle. Madagascar, only one species in Central Africa.
 35.
- Body subtriangular to elongate, parallel-sided, usually regularly convex or only slightly elevated in postscutellar part. Africa except Madagascar.
 41.
35. Pronotal disc smooth, without tubercles and rugosities. Prosternal collar only slightly angulate on sides. Antennal segment 3 distinctly longer than segment 4. Central Africa (subgenus ***Patrisma***).
 **L. (*Patrisma*) *murrayi***
- Pronotal disc rugose, often with tubercles. Prosternal collar strongly angulate on sides. Antennal segment 3 not or only slightly longer than segment 4. Madagascar (subgenus ***Asphalesia***).
 36.

36. Large species, length above 9.5 mm. Postscutellar tubercle large, conical.
 37.
- Small species, length below 8.5 mm. Postscutellar tubercle small, obtuse.
 **L. (*Asphalesia*) regularis**
37. Anterior margin of elytron forms a soft angle, humeral angles moderately protruding anterad. Apical five antennal segments infusate.
 38.
- Anterior margin of elytron forms a strong angle, humeral angles strongly protruding anterad. Apical four antennal segments infusate to black or whole antennae testaceous.
 39.
38. Prosternal process canaliculate in basal half to 2/3 length. Pronotal tubercles low, with rugosities. Elytra uniformly yellowish red to red, folds sometimes paler yellowish-red than ground colour.
 **L. (*Asphalesia*) pallicolor**
- Prosternal process canaliculate on whole length. Pronotal tubercles high, on tops without rugosities. Elytra of mixed reddish and black.
 **L. (*Asphalesia*) confragosa**
39. Antennae unicoloured, testaceous, or last three to four apical segments indistinctly infusate.
 40.
- Antennae with basal seven segments testaceous and four apical segments black, sometimes base of segment 8 testaceous.
 **L. (*Asphalesia*) perrieri**
40. Large, length above 11 mm. Explanate margin of elytra with black posterolateral spot.
 **L. (*Asphalesia*) spectrum**
- Smaller, length below 11 mm. Explanate margin of elytra without black posterolateral spot.
 **L. (*Asphalesia*) undulata**
41. Clypeus impressed with margins strongly elevated and carinate (subgenus ***Laccoptera s. str.***).
 42.
- Clypeus elevated with margins not carinate.
 47.
42. Body regularly convex or only slightly gibbous.
 43.
- Body strongly gibbous.
 44.
43. Pronotal disc irregularly rugose on whole surface, or area in front of scutellum elevated, punctate, with slightly glabrous surface.
 **L. (*s. str.*) rugosicollis**

- Pronotal disc only on sides and anterior half irregularly rugose, in front of scutellum with depressed, longitudinally punctate or/and striated area, surface between punctures dull.
..... **L. (s. str.) *weisei***
44. Postscutellar gibbosity very high, profile behind the top of the gibbosity slightly concave.
..... 45.
- Postscutellar gibbosity moderately high, profile behind the top of the gibbosity straight.
..... 46.
45. Pronotal disc without rugosities. Kenya, Tanzania, and N Mozambique.
..... **L. (s. str.) *aurosa***
- Pronotal disc with irregular rugosities. S Malawi and S Zambia.
..... **L. (s. str.) *brancsiki***
46. Basal half of pronotal disc with irregular rugosities.
..... **L. (s. str.) *zambesiaca***
- Basal half or pronotal disc with depressed, dull area without rugosities, only elongatedly punctate.
..... **L. (s. str.) *excavata***
47. Lateral margin of elytra strongly double marginate. Large, length usually above 10.3 mm. Only two species in South Africa (subgenus ***Orphnoda***).
..... 48.
- Lateral margin of elytra not or indistinctly marginate, only in two species distinctly marginate then length below 9.5 mm. Numerous species in whole Africa.
..... 49.
48. Pecten of claws short, extending to 1/3 length of claw. Pronotal and elytral sculpture higher, sharper, especially basal part of pronotal disc with high, sharp folds. Dorsal side usually bicoloured, disc of pronotum and elytra dark brown to black, explanate margin testaceous to pale brown.
..... **L. (*Orphnoda*) *intertexta***
- Pecten of claws long, extending to half length of claw. Pronotal and elytral sculpture lower, obtuse, also in basal part of pronotal disc. Dorsal side uniformly testaceous to brown.
..... **L. (*Orphnoda*) *cancellata***
49. Antennal segment 3 more than thrice longer than segment 2. Large, length above 10.7 mm. Body almost parallelsided, stout, regularly convex (subgenus ***Orphnodina***).
..... 50.
- Antennal segment 3 usually less than 2.5 times as long as segment 2. Small, length below 10.5 mm. Body varies from parallelsided to subtriangular, from regularly convex to slightly gibbous (subgenus ***Orphnodella***).
..... 51.
50. Anterior margin of labrum with two small median spines, without median emargination. Lateral margin of elytra not swollen.
..... **L. (*Orphnodina*) *distans***

- Anterior margin of labrum without two small median spines, with median emargination. Lateral margin of elytra swollen.
..... **L. (*Orphnodina*) *rustica***
51. Lateral margin of elytra broadly marginate.
..... 52.
- Lateral margin of elytra not or narrowly marginate.
..... 53.
52. Whole pronotal disc with fine, regular, longitudinal to oblique striation. South Africa.
..... **L. (*Orphnodella*) *burorum***
- Only basal part of pronotal disc with regular striation, sides of disc with irregular broad folds and granules. East Africa.
..... **L. (*Orphnodella*) *salebra***
53. Body elongate, almost parallel-sided, or only slightly rounded on sides.
..... 54.
- Body subtrapezoidal to subtriangular, sides distinctly converging posterad.
..... 59.
54. Pronotum sutrapezoidal, widest distinctly behind middle. Antennal segment 3 less than 2.5 times as long as segment 2.
..... 55.
- Pronotum elliptical, with broadly rounded sides, widest approximately in the middle. Antennal segment 3 more than 2.5 times as long as segment 2. Subsaharian species, from Senegal to Sudan.
..... **L. (*Orphnodella*) *rotundicollis***
55. Small, length usually below 9.3 mm. Pronotum narrower, usually less than 1.8 times as wide as long.
..... 56.
- Large, length always above 9.3 mm. Pronotum very broad, always more than 1.8 times as wide as long. SE Zaire.
..... **L. (*Orphnodella*) *kapiriana***
56. Basal part of pronotal disc with irregular wrinkles, rugose but never appears longitudinally striate.
..... 57.
- Basal part of pronotal disc regularly longitudinally striate. From S Tanzania to South Africa.
..... **L. (*Orphnodella*) *ruginosa*** (northern form)
57. Elytra almost parallel-sided, or slightly rounded on sides, widest in the middle, then indistinctly converging posterad.
..... 58.
- Elytra with maximum width in posthumeral part, then slightly but distinctly converging posterad. N Zaire and Republic of Central Africa.
..... **L. (*Orphnodella*) *sassana***
58. Pronotum red, elytra deep black. Sometimes pronotum mostly black but without transparent pale spots on anterior margin, often whole explanate margin reddish. Cameroon and N Zaire.
..... **L. (*Orphnodella*) *bicolor***

- Pronotum and elytra testaceous, brown or black, in dark specimens anterior margin of pronotum with two transparent pale spots. Whole Africa south of Sahara.
..... **L. (*Orphnodella*) *cicatricosa***
- 59. Elytra bicoloured, testaceous with black.
..... 60.
- Elytra unicoloured, testaceous, brown or black.
..... 61.
- 60. Anterior half of elytral disc, including postscutellar elevation, black. The black spot often emarginate posteriorly but black postscutellar elevation always connected with black humeral area. Cameroon, Equatorial Guinea, Gabon, and W Zaire.
..... **L. (*Orphnodella*) *basalis***
- Elytral disc with black band along sides reaching from humerus to half length of disc, also postscutellar elevation black. The black postscutellar elevation never connected with black humeral area. Gabon, Republic of Congo, W and E Zaire, ?Uganda.
..... **L. (*Orphnodella*) *nigricornis***
- 61. Pronotum red to brown, elytra deep black.
..... 62.
- Pronotum and elytra the same colour, sometimes elytra slightly darker than pronotum.
..... 64.
- 62. Body slim, length/width ratio 1.28-1.34.
..... 63.
- Body stout, length/width ratio 1.25-1.26. S Zaire.
..... **L. (*Orphnodella*) *rubricollis***
- 63. Body more triangular, sides strongly converging posterad. Very common in Central and East Africa.
..... **L. (*Orphnodella*) *montivaga*** (rare bicolour form)
- Body less triangular, sides moderately converging posterad. Rare in West and Central Africa.
..... **L. (*Orphnodella*) *rugicollis***
- 64. Pronotum and elytra testaceous to brown.
..... 65.
- Pronotum and elytra deep black, only explanate margin of pronotum with two yellowish spots anteriorly. Mountains of E Zaire, Ruanda, Burundi, Uganda, and Kenya.
..... **L. (*Orphnodella*) *atrata***
- 65. Only basal two antennal segments partly testaceous to brown, remainder deep black, occasionally basal ventral half of third segment brown. Pecten of claws short, extending to 1/4 length of claw.
..... 66.
- At least basal three antennal segments partly testaceous. Pecten of claws long, extending at least to 1/3 length of claw.
..... 67.
- 66. Humeral angles strongly protruding anterad, appears subangulate to angulate. Sides of elytra almost straight, strongly converging posterad. Cameroon, Gabon, W Zaire.
..... **L. (*Orphnodella*) *triangula***

- Humeral angles moderately protruding anterad, appears rounded. Sides of elytra slightly rounded, moderately converging posterad. Cameroon, Gabon, Equatorial Guinea, Zaire.

..... ***L. (Orphnodella) nunbergi***

67. Basal part of pronotal disc with irregular wrinkles, rugose but never appears longitudinally striate.

..... 68.

- Basal part of pronotal disc regularly longitudinally striate. From S Tanzania to South Africa.

..... ***L. (Orphnodella) ruginosa*** (southern form)

68. Postscutellar elevation low, body less angulate in profile. Usually larger, length above 7.3 mm, if less then sides of elytral disc with strong reticulation.

..... 69.

- Postscutellar elevation high, body more angulate in profile. Small, length usually below 7.3 mm. Sides of elytral disc with indistinct reticulation. Republic of Congo.

..... ***L. (Orphnodella) caduca***

69. Base of elytra distinctly wider than pronotum.

..... 70.

- Base of elytra indistinctly wider than pronotum. East Africa from Tanzania to Zimbabwe.

..... ***L. (Orphnodella) deremensis***

70. Usually larger, less triangular and paler brown species. Sides of elytral disc with less marked and lower reticulation. West and Central Africa.

..... ***L. (Orphnodella) corrugata***

- Usually smaller, more triangular and darker brown species. Sides of elytral disc with well marked and high reticulation. Central Africa and mountain regions of East Africa.

..... ***L. (Orphnodella) montivaga***

List of species

List of genera

List of tribes

References

Home