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## The Genus *Dryptocephala* Laporte (Heteroptera, Pentatomidae, Discocephalinae)

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### INTRODUCTION

*Dryptocephala* Laporte is one of three genera belonging to a tribe of discocephaline pentatomids in which the basal rostral segment is short, slightly exceeds the buccular canal, but does not surpass the anterior margin of the prosternum.

The genus is a rather unified one, and in some instances considerable difficulty is encountered in differentiating one species from another.

There is general resemblance in the quadrate-oblong shape of the body with its irregular, broken, or erose margins, and usually depressed condition of its dorsal surface, although in one or two species mild convexity is evident. *Dryptocephala* is virtually unique among the discocephalines, in that the tibiae, especially the posterior pair, are terete rather than prismatic, as in so many other discocephaline species, and their upper surfaces have a thin longitudinal groove, or an impressed line, in place of a broad, flat sulcus found in other genera of this subfamily. Furthermore, the terminal tarsal segment of the hind legs in the female is depressed from above, so that there is a distinct, flattened, elliptical area on its dorsal surface. Just what this condition signifies is not known, since in the male the homologous segment is quite normally convex.

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In color, the species of *Dryptocephala* range from pale yellowish tan to dark brown without contrasting designs of stripes or blotches; there are some significant color markings on the connexival segments in some species which may have a limited diagnostic value.

In *Dryptocephala*, the pronotum (figs. 1-12) is quite large and strongly explanate. The anterolateral margins vary considerably in their contour; in most species they are convex-arcuate, and may be entire, irregular, erose, crenate, or spinose. In some species, there is evidence of variation in the nature of these margins between individuals, which makes it rather difficult to apply this character in a diagnosis of the different forms. In general, the pronotum is broadly lunate or subreniform in outline; its dorsal surface is without contrasting depressions and elevations; in a few species, it is slightly convex.

The ostiolar peritreme in *brullei* and *latiloba* is somewhat lanceolate, with a slight curvature, and reaches beyond the middle of the supporting plate; in other species it is rather short, digitiform, and does not surpass the middle of the metapleuron.

The rostrum is short; in no species does its apex extend beyond the mesocoxae; segment II is subequal to the lengths of segments III and IV combined.

The mesosternum is mildly tumid, with a shallow, median sulcus or furrow between the lateral halves. The metasternum is narrowly hexagonal, with a shallow, median, somewhat fusiform impression; its basal and apical margins are quite narrowed. The mesocoxae and metacoxae are mutually equidistant, but the mesocoxae are rather remote from the procoxae.

There is a fair degree of similarity in the pattern of the plates of the female genitalia; some variation may be expected to occur, but, in all the species studied, this is a minor factor in diagnosis.

There is considerably greater difference in the composition of the external male genitalia than there is in the female. These differences are described (when male specimens have been available) in the section on Systematics dealing with the individual species. In general, it may be said that the genital capsule is globular to ovoid in shape, frequently depressed; the parameres are held more or less horizontally, with slightly declivous apices; the lateral apical lobes are without a basal quasi-articulation, are stout and divergent, and have apices that reach or surpass the apices of the parameres; the proctiger is small, conical in shape, almost papillate in some species; the ventral apical margin is reflexed, but its extreme edge varies considerably in contour in the different species; the aedeagus (fig. 19) is quite small, the phallosome

being somewhat pyriform in appearance, the vesica stubby, arcuate, and rapidly tapering from a rather stout base.

In the following descriptions, the length of the jugum is calculated from the point of its connection with the small tylus to its own apex, and its width is measured across its middle.

The angles of various portions of the body are measured by means of a 360-degree protractor fitted into an ocular.

The diameter of the head is measured between the eyes, rather than through them, as it has been found that the size of the eyes varies in individuals of the same species, and the distance between them is believed to be a more reliable measurement.

The size of the pronotum is calculated in terms of its greatest width in relation to its median length.

The ratios of antennal segments are given in terms of micrometric units and not millimeters.

The color testaceous, as used in the descriptions, implies a combination of pale brown and yellow, producing a muddy tan shade.

## SYSTEMATICS

### GENUS *DRYPTOCEPHALA* LAPORTE

*Dryptocephala* LAPORTE, 1832, p. 56. BURMEISTER, 1835, p. 371. AMYOT AND SERVILLE, 1843, p. 118. FIEBER, 1851, p. 432. STÅL, 1867, p. 499; 1872, p. 4. BERG, 1879, p. 35. DISTANT, 1880 (1880-1893), p. 44. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

*Storthis* PERTY, 1834 (1830-1834), p. 215. SPINOLA, 1837, p. 280. HERRICH-SCHAEFFER, 1844 (1835-1844, vol. 7), p. 41, pl. 229, figs. A-C.

TYPE SPECIES: *Dryptocephala Brullei* Laporte.

DIAGNOSIS: Rostrum arising from base of head behind line drawn through eyes, basal segment not surpassing anterior margin of prosternum; posterior tibiae terete, with narrow dorsal groove or impressed line; pronotum subreniform, anterior margin partially encircling base of head; scutellum not surpassing fifth abdominal tergite.

GENERIC CHARACTERS: Form broadly oval to subquadrangular-oblong, in most cases depressed above, mildly convex beneath; color pale or medium brown, without contrasting color design except on connexivum in some species; punctures fine, mostly uniform in size.

Head shorter than median length of pronotum, about one-third to one-half again as wide between eyes as long medially; surface frequently concave; margins with pair (1+1) of anteocular, spinous processes, except in three species, in which spinous processes are lacking; juga much longer than tylus, usually apically divergent, contiguous for only short

distance at bases, apex of head with median incisure or hiatus; eyes quite small, widely separated, partially embedded at posterior lateral corners of head; ocelli placed well behind line drawn through eyes and about as far apart as each is distant from its respective eye. Antennae five-segmented, reaching base of scutellum, setose, terminal three segments usually annulated, segmental ratios varying with species.

Pronotum subreniform, two and one-half to three times as wide as long; anterolateral portions widely explanate, margins weakly convex-arcuate, variously entire, erose, dentate, or spinose; anterior margin wider than head through eyes, encircling base of head, anterior apical angles reaching at least level of eyes. Scutellum slightly longer than wide at base, frena ending near middle, margins there feebly sinuate, apex moderately rounded, not reaching beyond fifth abdominal tergite, disc without ornamentation. Hemelytra attaining end of abdomen, costal margin somewhat ampliate opposite third abdominal segment, obtusely arcuate there, membranes pale, crepelike in texture, veins usually concolorous, tending to anastomose. Connexivum widely exposed, segmental apical angles in some species strongly produced.

Under surface of head sparingly punctured. Bucculae feebly elevated, uniform in height, divergent posteriorly; buccular canal moderately deep. Rostrum short, not surpassing mesocoxae, basal segment stout, not exceeding buccular canal by more than half of segmental length, not surpassing anterior margin of prosternum; segment II feebly arcuate, about as long as segments III and IV together. Mesosternum mildly tumid, with shallow median sulcus between bilateral halves. Metasternum somewhat narrowed, thickened, almost pentagonal, with acutely rounded apex and median furrow. Mesocoxae and metacoxae mutually equidistant. Ostiolar peritreme digitiform or stoutly linear, with slight anterior curvature, ending abruptly at, or near, middle of metapleural plate. Legs moderately long, femora and tibiae invariably spotted with conspicuous black dots; at least posterior pair of tibiae terete, with thin impressed line or very narrow groove on upper surfaces. Median portion of basal (first visible) abdominal segment tumid but not tuberculate; median furrow obsolete.

Basal margin of seventh abdominal sternite in male produced forward into acute angle ( $60^{\circ}$  or less), reaching middle of abdominal disc; homologous margin of sixth sternite angulated at  $90^{\circ}$  degrees.

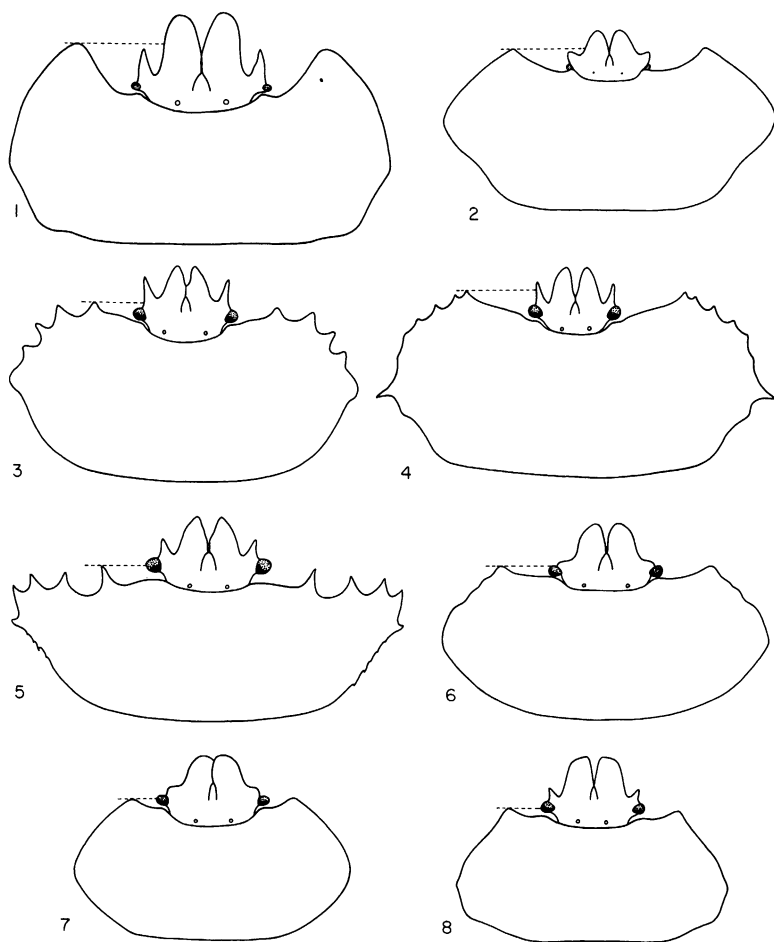
Visible plates of female genital valves four in number; basal plates quadrilateral, inner margins slightly thickened, apical margins truncate or shallowly sinuate, convergent medially to form wide V-shaped sinus.

Male genital capsule globular to ovate; lateral apical lobes stout,

simple, without basal quasiarticulation, strongly divergent, usually exceeding apices of parameres; proctiger small, ovate or conical, completely sclerotized, more or less porrect, with vague central flexure, anal orifice visible partially from posterior, partially from ventral aspects; parameres lying horizontally, elongate, usually narrow, closely appressed to proctiger, and usually convergent apically; ventral apical margin reflexed, varied in contour, in most species with median notch; submarginal impression broad and shallow; genital cup widely open, its floor, in most species, provided with pair (1+1) of tumid elevations or thickened ridges between lateral apical lobes and parameres.

#### KEY TO THE SPECIES OF *Dryptocephala*

1. Anterior apical corners (angles) of pronotum surpassing line drawn through eyes (figs. 1-4) ..... 2
- Anterior apical corners (angles) of pronotum not surpassing line drawn through eyes (figs. 5-12) ..... 5
- 2(1). Anterolateral pronotal margins entire; anterior apical angles of pronotum reaching or exceeding apices of anteocular processes (figs. 1, 2); sparingly punctured; basal segments of antennae conspersed, apical ones annulated black and yellow ..... 3
- Anterolateral pronotal margins crenate or subspinose; anterior apical angles of pronotum slightly exceeding line drawn through eyes but not reaching apices of anteocular processes (figs. 3, 4); densely punctured; antennal segments 3-5 entirely black ..... 4
- 3(2). Antennal segment II slightly longer than segment III; anteocular process elongate, triangular, apex acute; sinus between process and jugum deep, narrowly rounded; juga longer than wide (fig. 1) ..... *brullei* Laporte
- Antennal segment II slightly shorter than segment III; anteocular processes abbreviated, slightly shorter than wide, their apices rounded; sinus between process and jugum shallow, obtuse; juga about as long as wide (fig. 2) ..... *latiloba* Stål
- 4(2). Above testaceous, punctures piceous; head and pronotum suffused with orange-red; anterolateral pronotal margins deeply dento-erose, their posterior angles obtusely rounded (fig. 3); each connexival segment with conspicuous orange-red spot ..... *crenata*, new species
- Above testaceous, punctures pale, almost concolorous; head and pronotum without reddish suffusion; anterolateral pronotal margins shallowly, acutely erose, their posterior angles very acute, subspinous, and slightly produced (fig. 4); connexival segments without orange-red spots ..... *nigricornis*, new species
- 5(1). Anterolateral pronotal margins coarsely and acutely spinous, spines directed anteriorly (fig. 5); explanate lateral portions of pronotum subquadrangular; apical angles of connexival segments produced into large acute teeth ..... *spinosa* Mayr
- Anterolateral pronotal margins merely erose, in many cases feebly so,

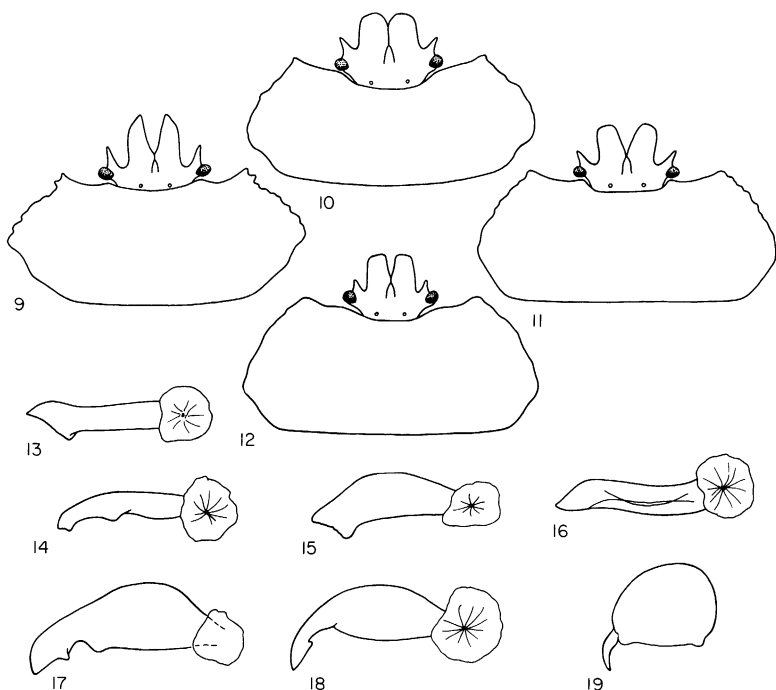


FIGS. 1-8. Head and pronotum. 1. *Dryptocephala brullei*. 2. *D. latiloba*. 3. *D. crenata*. 4. *D. nigricornis*. 5. *D. spinosa*. 6. *D. maculosa*. 7. *D. lipoloba*. 8. *D. punctata*.

- almost entire or irregular; explanate lateral portions of pronotum arcuate; apical angles of connexival segments rectilinear to subacute, in no case produced into large, stout teeth ..... 6
- 6(5). Head devoid of anteocular processes, area there merely obtusely rounded; anteocular sinuses obtuse, shallow (figs. 6, 7); apices of juga obtusely rounded; anterior and posterior margins of connexival segments conspicuously black ..... 7
- Head with spinous anteocular processes, sinuses between them and juga deep, narrowly rounded (figs. 8-12); margins of connexival segments black or not ..... 8

- 7(6). Head and explanate portions of pronotum with coarse black punctures or spots; distance between anterior apical pronotal angles more than twice width of head between eyes; inner margins of juga divergent ..... *maculosa*, new species
- Head and explanate portions of pronotum without coarse black punctures or spots; distance between anterior apical angles of pronotum not more than twice width of head between eyes; inner margins of juga contiguous, in some cases overlapping apically, apical incisure small ..... *lipoloba*, new species
- 8(6). Anterior and posterior margins of connexival segments conspicuously black, black bands dilating toward lateral margins to form contrasting black triangle, with flavescent center at segmental incisures; lateral ends of ventral abdominal sutures black ..... *punctata* Amyot and Serville
- Anterior and posterior margins of connexival segments not conspicuously black, if black, then black border narrow and not dilated at lateral incisures; lateral ends of abdominal sutures and incisures not black ..... 9
- 9(8). Juga elliptical, about twice as long as wide, their apices acute, or roundly acute, their inner margins conspicuously divergent, apical incisure prominent, deep; anterolateral pronotal margins distinctly erose (fig. 9) ..... *dentata* Fieber
- Juga more abbreviated, subquadrate to oblong, barely longer than wide, inner margins weakly divergent, in some cases contiguous; apical incisure narrow, in some cases small, obscure; apices of juga truncate or rounded; anterolateral pronotal margins obsolescently erose, almost entire ..... 10
- 10(9). Apical margins of juga obtusely rounded without an inner angulation (figs. 10, 11) ..... 11
- Apical margins of juga truncate, inner apical angle rectilinear, outer apical corner obtusely rounded, apical incisure more or less evident (fig. 12) ..... 12
- 11(10). Internal margins of juga contiguous for almost entire length, apical incisure quite small, inconspicuous; apical angles of connexival segments rectilinear, not produced ..... *obtusiceps* Stål
- Inner margins of juga somewhat separated, apical incisure more evident; apical angles of connexival segments subacute, feebly produced, denticular ..... *dentifrons* Latreille
- 12(10). Apices of anteocular processes reaching or exceeding middle of jugal margins; anterior apical pronotal angle subacute, slightly surpassing line drawn through eyes ..... *integra* Walker
- Apices of anteocular processes not reaching middle of jugal margins; anterior apical pronotal angles subobtuse, barely reaching line drawn through eyes (fig. 12) ..... *lurida* Erichson

From the foregoing key, the species *Dryptcephala asperula* (Perty) and *Dryptcephala cydnoides* (Perty) have been omitted because there is considerable doubt as to their validity. Perty's original descriptions of these



FIGS. 9-12. Head and pronotum. 9. *Dryptocephala dentata*. 10. *D. obtusiceps*. 11. *D. dentifrons*. 12. *D. lurida*.

FIGS. 13-18. Parameres. 13, 14. *Dryptocephala lipoloba*. 13. Dorsal view. 14. Lateral view. 15, 16. *D. maculosa*. 15. Dorsal view. 16. Lateral view. 17. *D. dentifrons*, lateral view. 18. *D. lurida*, lateral view.

FIG. 19. Left lateral view of aedeagus of *D. dentifrons*.

two species (under the generic name of *Storthis*) are so inadequate as to make identification from them impossible. I have searched through the Spix and Martius collection of pentatomids, from which Perty described many new species, including the two mentioned above, but have failed to find any specimens of *Dryptocephala* or any examples that might remotely resemble species of that genus.

### *Dryptocephala brullei* Laporte

Figures 1, 20

*Dryptocephala brullei* LAPORTE, 1832, pp. 55, 56, pl. 54, fig. 4. BURMEISTER, 1835, p. 371. BLANCHARD, 1840, p. 445. AMYOT AND SERVILLE, 1843, p. 119. FIEBER, 1851, p. 434. DALLAS, 1851, p. 148. STÅL, 1872, p. 4. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

*Phloea livida* PERTY, 1834 (1830-1834), p. 168.

*Storthia livida*: PERTY, 1834 (1830-1834), p. 215, pl. 33, fig. 13. SPINOLA, 1837, p. 281.

*Dryptocephala livida*: FIEBER, 1851, p. 432.

DIAGNOSIS: Antennal segment II slightly longer than segment III; anteocular spinous process elongate, about twice as long as wide, flat, acute; species 15.0 mm. or more in length.

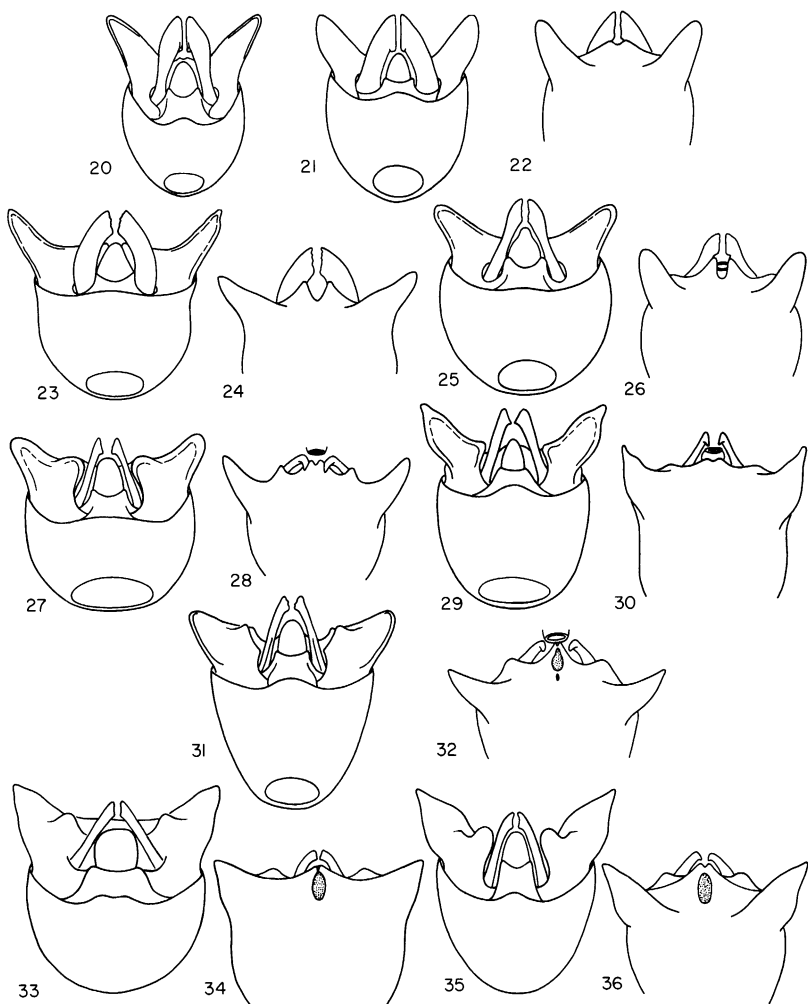
SPECIFIC CHARACTERS: Large (female, 16.0 mm. in length; male, 15.0 mm. in length); oblong, mildly convex above, feebly so beneath; testaceous to pale yellowish tan, punctures fine, ferruginous to fuscous, unevenly and sparingly distributed, many times as far apart as their own diameters, those on venter aggregating laterally.

Head flat (fig. 1), three-fourths of median length of pronotum, one-third wider between eyes than long; eyes quite small; anteocular spinous processes long, about twice as long as average width, reaching halfway to apex of head, their lateral margins narrowly black; juga oblong, apices evenly rounded, their inner margins divergent, apical incisure prominent, deep. Antennae pale testaceous, basal segments sparingly stippled, apices of segments III, IV, and V black; segmental ratios: 40/60/50/60/100, i.e., segment II slightly longer than III.

Pronotum (fig. 1) stoutly lunate or subreniform, slightly less than two and one-half times as wide as long, strongly explanate, anterolateral margins entire, convex-arcuate, anterior apical angles narrowly rounded, produced forward to reach line connecting apices of anteocular processes; anterior margin truncosinuate centrally to receive head; surface very vaguely rugulose; punctures sparse, many four times as far apart as their diameters, rather irregularly distributed. Costal margin of hemelytra weakly ampliate opposite third abdominal segment, but not reflexed between ampliation and base of wing; punctures fine, irregularly spaced, with numerous small, smooth areas evident; membranes and veins colorless. Connexivum broadly exposed, flavescent, obscurely punctured; anterior margin of each segment narrowly black, in some specimens, the black line curving backward along lateral margin; apical angles of segments minutely black.

Rostrum testaceous, reaching mesocoxae. Legs testaceous, femora and tibiae having widely spaced and irregularly placed black dots. Incisures of abdominal segments minutely black, abdominal punctures sparse, irregularly distributed.

Basal plates of female genital valves trapezoidal, slightly wider than long, apical margins feebly sinuate; apical plates narrowly triangular-conical, their apices exceeding abdominal margin.



FIGS. 20-36. Pygofers. 20. *D. brullei*, dorsal view. 21, 22. *D. latiloba*. 21. Dorsal view. 22. Ventral view. 23, 24. *D. maculosa*. 23. Dorsal view. 24. Ventral view. 25, 26. *D. lipoloba*. 25. Dorsal view. 26. Ventral view. 27, 28. *D. punctata*. 27. Dorsal view. 28. Ventral view. 29, 30. *D. dentata*. 29. Dorsal view. 30. Ventral view. 31, 32. *D. obtusiceps*. 31. Dorsal view. 32. Ventral view. 33, 34. *D. dentifrons*. 33. Dorsal view. 34. Ventral view. 35, 36. *D. lurida*. 35. Dorsal view. 36. Ventral view.

Pygofer (fig. 20) broadly ovate; lateral apical lobes stout, widely divergent, weakly concave above, apices narrowly rounded; floor of

genital cup without pair of elevations or raised ridges; proctiger small, ovate; parameres large, broadly strap-shaped, inner apical margins truncate, approaching each other, apical ends just about reaching apices of lateral apical lobes, feebly declivous; ventral apical margin reflexed, somewhat thickened, bearing minute apical notch; submarginal impression transversely elliptical, shallow; aedeagus quite small, completely sclerotized, pale brown, phallosome elliptical-oval, with pair of small, compressed, globular tubercles adjacent to base of vesica, latter short, arcuate, strongly declivous, stout at base, rapidly tapering to apical orifice.

This species averages 15.0 mm. in length; 9.0 mm. in width across greatest pronotal diameter; female distinctly larger than male.

TYPE MATERIAL: Holotype, male; Brazil; no date; deposited in the Muséum National d'Histoire Naturelle, Paris.

DISTRIBUTION: Brazil.

REMARKS: This is the largest species of the genus and readily recognized by the large pronotum and sparse puncturation. All specimens that I have examined are labeled as coming from Brazil with no specific locality designated, except one specimen in the British Museum collection, which is labeled "Rio de Janeiro."

*Dryptocephala latiloba* Stål

Figures 2, 21, 22

*Dryptocephala latiloba* STÅL, 1872, p. 4. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

DIAGNOSIS: Anteocular processes broader than long, apically rounded; antennal segment II slightly shorter than III; species about 15.0 mm. in length.

SPECIFIC CHARACTERS: Large, mildly convex above, flatter beneath; sordid flavescent, punctures piceous and ferruginous, somewhat denser than in *brullei*, many no more than twice as far apart as their own diameters, those on explanate portions of pronotum large, piceous; ventral punctures piceous, more or less restricted to lateral area.

Head half again as wide between eyes than long; disc slightly concave, punctures piceous, unevenly distributed; anteocular processes wider than long, apices obtuse, or roundly angular, exceeding line drawn through middle of eyes but not attaining middle of jugal margins; anteocular sinuses roundly rectilinear to obtuse; juga oval, about as long as wide, entire margins narrowly edged with black; apical sinus narrow, deep. Antennal segment II subequal to, or slightly shorter than, segment III; terminal three segments annulated.

Pronotum more than two and one-half times as wide as long; disc mildly convex, slightly transverse rugulose, with fine ferruginous punctures between rugae; anterolateral margins weakly convex-arcuate, anterior apical angles subacute, surpassing line drawn through middle of eyes but not at all reaching middle of jugal margins; central portion of anterior margin truncately excavated to receive head, lateral portions mildly sigmoid behind eyes and beyond. Scutellum slightly longer than wide at base, disc mildly convex; punctures ferruginous, coarser than those on hemelytra, moderately dense, but somewhat unevenly distributed; apex evenly rounded, not surpassing fifth abdominal tergite. Hemelytra very finely, but unevenly, ferruginopunctate, costal margin distinctly ampliate opposite base of abdomen, portion from there to base of wing not at all reflexed; membranes and veins colorless, veins tending to bifurcate. Connexivum widely exposed, flavescent, with vague ferruginous punctures; anterior margin of each segment very narrowly edged with black, apical segmental angles minutely black.

Venter sordid flavescent, head and pronotum slightly darker; short row of piceous punctures along side of bucculae, remainder of head impunctate; punctures piceous, loosely scattered on lateral portions of thorax and abdomen; median areas and lateral portions of abdomen, up to spiracles, impunctate. Metasternum quite narrowly hexagonal, with very narrow median sulcus resembling impressed line. Legs concolorous with adjacent portions of torso; femora with scattered piceous dots, more abundant toward apices; tibiae with few piceous dots or dashes on upper surfaces; tarsi uniformly flavescent. Ostiolar peritreme slightly lanceolate, rather straight, apex terminating about two-thirds of distance across metapleuron.

Pygofer (figs. 21, 22) ovate; dorsal border produced over base of proctiger, apically shallowly sinuate; lateral apical lobes elliptical, their apices rather narrowly rounded, dorsal surfaces shallowly concave; ventral apical margin between lobes (fig. 22) reflexed, slightly produced into broad triangle with small median notch; submarginal impression shallow; proctiger narrowly ovate; parameres stout, rather broad, arcuate around proctiger, inner apical margins truncate, facing each other; extreme apical angles acute, barely declivous.

Basal plates of female genital valves quadrangular, similar to those of *brullei*.

This species averages 14.5 mm. in length; 9.0 mm. in width across humeri.

TYPE MATERIAL: Holotype, male; Rio de Janeiro, Brazil; no date; deposited in the Naturhistoriska Riksmuseum, Stockholm.

DISTRIBUTION: Brazil: Rio de Janeiro.

REMARKS: This species is superficially similar to *D. brullei* in size and color, but is readily distinguishable by the absence of spinous anteocular processes and the presence of somewhat denser puncturation. In the examination of several specimens, I observed that the female is about 1 mm. longer than the male, a rather greater differential in this dimension than is found in allied species.

***Dryptocephala crenata*, new species**

Figure 3

DIAGNOSIS: Large species, 14.0 mm. in length; anterolateral pronotal margins deeply dento-erose, their posterior angles obtusely rounded; dorsal punctures black, pronotum and head suffused with orange-red.

SPECIFIC CHARACTERS: Broadly oblong, subdepressed, weakly convex beneath; sordid testaceous, with reddish blotching and clouding, punctures piceous, fuscous and ferruginous, varied in size, rather dense and irregularly distributed above; beneath orange-testaceous centrally, more flavescent laterally, punctures piceous, for the most part coarser than above, sparingly distributed centrally, principally concentrated laterally some distance entad of lateral margins.

Head weakly concave, about two-thirds of median length of pronotum, about one-third wider between eyes than long; anteocular processes long, acute, their apices reaching middle of jugal margins; juga narrowly oval, their apices narrowly rounded, their inner margins divergent, apex of head deeply incised; punctures piceous, sparingly distributed, disc flavescent, with irregular, orange-red suffusion. Antennae almost totally black, segments I, II, and III with vague pale dots; segmental ratios: 30/35/-45/50/70, i.e., segment II slightly longer than I, shorter than III, half of length of V.

Pronotum slightly more than two and one-half times as wide as long; anterolateral margins with four or more coarse, flat, acute crenations with deep sinuses between them, posterior angle obtusely rounded; anterior apical angles slightly exceeding line drawn through eyes, barely reaching bases of anteocular processes; ampliate portions and areas around cicatrices having coarse, orange reticulum between large, widely spaced piceous punctures; punctures on central and posterior portions of disc somewhat finer, denser, and unevenly distributed, some arranged in transverse, vermicular, fine lines. Scutellum little longer than wide at base, apex evenly rounded, basal portion of disc feebly convex, with somewhat coarser punctures, surface vaguely transverse rugulose. Hemelytra more finely and densely punctured, punctures ferruginous, rather

uniform in size but irregularly distributed; membranes pale, dirty amber, veins fulvescent; costal margin distinctly obtuse-ampliate opposite base of abdomen and there provided with several large black spots. Connexivum flavescent, with conspicuous orange-red subumbonate patch on posterior half of each segment, posterior margin of each segment black, and oblique black dash extending from anterior margin to lateral margin near orange-red spot; apical angles of segments rectilinear and distinctly produced so that lateral margin of abdomen is coarsely serrated.

Punctures on venter piceous, coarser than above, in some areas congested, forming very vague longitudinal band on each side of abdomen, central portion of venter with orange suffusion. Legs testaceous, femora and tibiae with conspicuous, dense, irregularly placed, black spots; tarsi uniformly pale.

Basal plates of female genital valves subtrapezoidal, apical margins feebly sinuate; apical plates just about reaching margin of abdomen.

This species measures 14.25 mm. in length; 9.45 mm. in width across humeral angles.

TYPE MATERIAL: Holotype, female; Moyobamba region, Peru; December 12, 1925; Harvey Bassler, collector; deposited in the American Museum of Natural History. Paratype, female; same data as for holotype.

DISTRIBUTION: Peru: Moyobamba region.

REMARKS: Of the larger species of *Dryptocephala*, this is the only one with conspicuously crenated anterolateral pronotal margins. The large orange-red spots on the connexival segments immediately distinguish it.

### ***Dryptocephala nigricornis*, new species**

#### Figure 4

DIAGNOSIS: Antennae uniformly black; anterolateral pronotal margins unevenly, acutely erose, their anterior and posterior angles acute, posterior ones slightly produced; abdominal venter with broad, longitudinal band of coalesced black punctures on each side parallel to lateral margins.

SPECIFIC CHARACTERS: Broadly oval, about one-third longer than wide; moderately convex above, less so beneath.

Sordid testaceous, punctures very pale ferruginous, many concolorous with background, fine, dense, barely farther apart than their own diameters, rather evenly distributed; anterior and posterior margins of connexival segments narrowly edged with black; abdominal venter with pair (1 + 1) of longitudinal, broad, black bands some distance entad of lateral margins.

Head (fig. 4) short, half of median length of pronotum and two-thirds

as long as wide between eyes, surface concave, essentially impunctate; antocular processes long, narrow, apices very acute, their outer margins narrowly edged with black, their apices reaching middle of jugal margins; juga about twice as long as wide, apices narrowly rounded, well separated, leaving long, narrowed, apical hiatus; eyes fuscous; ocelli topaz. Antennae black, small portion of basal segment flavescent, segment IV compressed; segmental ratios: 40/40/70/80/100, i.e., segments I and II equal, much shorter than remaining segments.

Pronotum (fig. 4) two and three-fourths as wide as long, anterior margin more than twice as wide as head through eyes; disc rather convex, smooth, punctures pale ferruginous or concolorous with background, fine, rather evenly distributed; anterolateral margins distinctly but unevenly erose, with shallow sinuses between acute points, anterior and posterior angles acute, posterior ones somewhat produced; anterior portion of disc weakly declivous and shallowly impressed on each side near anterior apical region. Scutellum as long as wide across base, apex rather broadly rounded; punctures like those on pronotum. Hemelytra reaching apex of abdomen, costal margin abruptly ampliate opposite base of abdomen, then narrowly reflexed toward base of wing; punctures finer and more wide-spaced than those on pronotum and scutellum; membranes colorless, translucent, veins not at all evident. Connexivum pale yellow, impunctate, anterior margin of each segment very narrowly edged with black, the black line bent backward near lateral margin; apical segmental angles acute, minutely black, and slightly produced so that margin of abdomen is finely serrated.

Venter semiglossy; head and lateral portions of pleura and abdomen impunctate, pale yellow; ental portions of pleura with congested black punctures, central portion of abdomen with sparsely scattered black punctures, lateral portions with coalescing black punctures forming broad band some distance from lateral margins and enclosing spiracles. Rostrum reaching mesocoxae. Legs flavescent, extensively spotted with fuscous and black dots; tarsi pale.

Basal plates of female genital valves trapezoidal, slightly wider than long, apical margins truncate, converging medially.

This species measures 13.25 mm. in length; 10.0 mm. across greatest pronotal diameter.

TYPE MATERIAL: Holotype, female; Corumba, Mato Grosso, Brazil; no date; deposited in the American Museum of Natural History. Paratype, female; Amazonas, Brazil; 1861; Bates, collector; deposited in the Hope Department of Entomology, University Museum, Oxford.

REMARKS: This species is one of the most readily identifiable of

*Dryptocephala* because of the uniformly black antennae and broad bands of black punctures on the abdomen. The paratype has been in the collection of Oxford University for a long time and apparently had been examined by a number of previous workers, as it bears several identifications, such as *Pentatoma dentifrons* Latreille, *Dryptocephala Brullei* Laporte, and *Storthis livida* Perty, each in a different handwriting.

*Dryptocephala spinosa* Mayr

Figure 5

*Dryptocephala spinosa* MAYR, 1864, p. 907; 1866, p. 41, pl. 1, fig. 5. STÅL, 1872, p. 5. LETHIERRY AND SEVERIN, p. 83. KIRKALDY, 1909, p. 214.

DIAGNOSIS: Anterolateral pronotal margins strongly spinose, spines directed anteriorly; connexival angles greatly produced into stout, acute teeth.

SPECIFIC CHARACTERS: Broadly ovate, sordid testaceous, semiglossy; punctures ferruginous and piceous, fine, dense, rather evenly distributed both above and beneath.

Head (fig. 5) feebly concave, about one-fifth wider between eyes than long, juga broadly elliptical, apices rounded, inner margins widely divergent, apical incisure prominent, anteocular processes with narrowly rounded apices, punctures moderately dense. Basal three antennal segments flavescent with fine black stippling, terminal two segments flavescent, with black apices.

Pronotum (fig. 5) strongly explanate, with pair (1+1) of oblique, subquadrate lobes with strongly spinose margins, spines directed anteriorly, posterolateral margins nearly straight, finely serrate; anterior margin feebly encircling base of head; punctures ferruginous, dense, fewest on anterior and central portions of disc. Scutellum slightly longer than wide at base, apex somewhat narrowly rounded; central portion of disc slightly elevated and extended onto postfrenal portion as low, obtuse ridge. Hemelytra very densely punctured; costal margin weakly explanate near base, with few larger piceous punctures on proximal portion of embolium; external apical angle of corium rectilinear; membranes pale smoky amber, veins and centrally placed spots pale brown. Connexivum moderately exposed, sordid flavescent, punctures fine, ferruginous; apical angles of segments produced into large, triangular teeth with minutely black, very acute apices.

Beneath glossy, sordid-testaceous, punctures black, widely distributed, tending to aggregate laterally, and laterally becoming finer. Legs spotted with small black dots. Median portion of first visible abdominal segment

very feebly tumid; median furrow obsolete; under surfaces of connexival angles glabrous.

Basal plates of female genital valves subtrapezoidal, distinctly wider than long, apical margins feebly sinuate; apical plates elongated, their apices exceeding abdominal margin.

This species averages 12.0 mm. in length; 9.0 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, female; Brazil; no date; deposited in the Naturhistorisches Museum, Vienna.

DISTRIBUTION: Brazil.

REMARKS: Unfortunately, I have not seen a male specimen of this species, but surmise that the pattern of the pygofer is similar to the patterns exhibited by other species in the genus. In all specimens that have been examined, the antennae are mutilated; their linear ratios therefore cannot be given. This species is probably the most distinctive in the genus, the pronotal and connexival spines readily differentiating it from all others.

### ***Dryptocephala maculosa*, new species**

Figures 6, 15, 16, 23, 24

DIAGNOSIS: Head without anteocular spinous processes; width across greatest pronotal diameter distinctly greater than width across greatest abdominal diameter; head and explanate portions of pronotum with conspicuous, large, piceous punctures (dots).

SPECIFIC CHARACTERS: Pale testaceous, dorsal punctures piceous and ferruginous, dense, mostly fine, somewhat irregularly distributed; ventral punctures piceous, rather uniform, somewhat sparsely distributed, mostly occurring on lateral areas; large piceous punctures on head and explanate portions of pronotum.

Head (fig. 6) half of median length of pronotum, one-third wider between eyes than long; lateral margins without anteocular spinous processes, area there smoothly rounded, anteocular sinuses distinctly obtuse; juga barely as long as wide, their inner margins contiguous at base, then divergent, not overlapping or connivent, apical sinus evident but narrow; disc weakly concave; piceous punctures larger than ferruginous ones. Antennae pale flavescent, basal three segments finely stippled with fine black points, apical portions of segments III, IV, and V fuscous to piceous; segmental ratios: 30/50/50/60/75, i.e., segments II and III equal, each two-thirds of length of V.

Pronotum (fig. 6) subreniform, two and five-eighths as wide as long; lateral explanate portions flaring, extending beyond greatest width of

abdomen and having numerous large black punctures or spots; antero-lateral margins irregular but not distinctly erose, anterior apical angles rectilinear to obtuse, not surpassing line drawn through eyes; sinus between posterolateral margin and base of hemelytron pronounced, obtuse; punctures mostly fine, ferruginous, somewhat irregularly distributed, with vague, transverse rugae between them. Scutellum about one-fifth longer than wide at base, apex evenly rounded; punctures slightly coarser than elsewhere, surface vaguely rugulose. Connexivum pale flavescent, punctures pale reddish, rather vague, sparse; anterior and posterior margins of segments narrowly black, the black line of anterior margin abruptly curved posteriorly in approaching lateral margin; apical angles of segments rectilinear, very slightly produced.

Pygofer (figs. 23, 24) broadly ovate, wider across apices of lateral apical lobes than long from base of capsule; lateral apical lobes about twice as long as wide, conspicuously divergent, dorsal surfaces weakly concave, apices acutely rounded; floor of genital cup without elevation between lateral apical lobes and parameres; proctiger somewhat ovate, rather prominent; parameres (figs. 15, 16) flat, crescentric, concave margins facing inwardly, apices (dorsal aspect) truncate, extreme tips (lateral aspect) acute but not cuspidate; ventral apical margin (fig. 24) reflexed, convex-arcuate, with conspicuous median, black-margined notch; sub-marginal impression rather shallow.

This species averages 12.0 mm. in length; 8.25 mm. in width across widest portion of pronotum.

TYPE MATERIAL: Holotype, male; Rio Natal, Santa Catarina, Brazil; February, 1937; A. Maller, collector, Frank Johnson, donor; deposited in the American Museum of Natural History. Paratype, male; Bituruna, Paraná, Brazil; January, 1946; *ex* collection J. M. C. Carvalho.

DISTRIBUTION: Brazil: Santa Catarina; Paraná.

REMARKS: There is considerable resemblance between this and the following species. Since both were taken from the same or adjacent localities, they apparently cannot be subspecies one of another. Both may be distinguished from others in the genus by the absence of ante-ocular spinous process, so characteristic of *Dryptocephala*.

### ***Dryptocephala lipoloba*, new species**

Figures 7, 13, 14, 25, 26

DIAGNOSIS: Lateral margins of head without anteocular spinous processes; width across greatest pronotal diameter not greater than greatest width across abdomen; head and explanate portions of pronotum without conspicuous, large black spots.

**SPECIFIC CHARACTERS:** Sordid flavescent, punctures above ferruginous, dense, rather regularly distributed, beneath paler flavescent, punctures somewhat darker and coarser, widely spaced, those laterally slightly finer and denser.

Head (fig. 7) slightly more than half of median length of pronotum, about one-third wider between eyes than long; anteocular area feebly protuberant, anteocular processes lacking, anteocular sinuses roundly rectilinear to obtuse; juga as long as wide, apices obtusely rounded, their inner margins connivent, in some cases overlapping, apical sinus small, short; disc slightly concave, punctures ferruginous, fine, dense; eyes slightly protuberant. Antennae flavescent, basal three segments finely stippled with black, apical portions of segments III, IV, and V piceous; segmental ratios: 20/30/50/50/60, i.e., segment II distinctly shorter than segment III.

Pronotum (fig. 7) subreniform, slightly more than two and one-half times as wide as long, lateral portions explanate but not exceeding greatest width of abdomen, marginal sinus between pronotum and base of hemelytron shallow, rectilinear; anterolateral margins almost entire, slightly irregular, but not at all erose; anterior apical angles obtuse, not exceeding line drawn through eyes; punctures ferruginous, very fine, those on explanate portions sparser but not conspicuously enlarged. Scutellum about one-fifth longer than wide at base, apex somewhat narrowly rounded, punctures fine, dense, sparsest toward apex; surface vaguely irregular. Hemelytra very finely punctured, costal margins feebly ampliplate opposite base of abdomen, basal portion of embolium with few larger black punctures; membranes very pale smoky amber, veins and a few central dots slightly darker, veins vaguely anastomosing. Connexivum pale flavescent, punctures pale ferruginous, dense; anterior and posterior margins of segments black, black stripes dilating toward margin to form conspicuous triangular patch at incisures.

Metasternum less distinctly longitudinally sulcate than in allied species. Legs flavescent, black spotting on femora and tibiae moderately dense. Median portion of first visible abdominal segment feebly tumid, median furrow obsolete. Marginal connexival incisures with black triangular mark.

Basal plates of female genital valves trapezoidal, slightly wider than long, apical margins feebly sinuate; apical plates somewhat broadly triangular, their apices slightly exceeding margin of abdomen.

Pygofer (figs. 25, 26) subglobular; lateral apical lobes rather stubby, barely half again as long as wide, dorsal surfaces feebly concave, apices obtusely rounded; floor of genital cup without elevated tubercle or ridge

between lateral apical lobes and parameres; proctiger somewhat pyriform; parameres digitiform, slightly dilated toward apices (dorsal aspect, fig. 13), slightly curved (lateral aspect, fig. 14), extreme apices truncate; ventral apical margin between lateral apical lobes (fig. 26) reflexed, somewhat produced, with deep, median, black-bordered, U-shaped notch; submarginal impression transversely oval, moderately deep.

This species averages 11.5 mm. in length; 7.5 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, male; Rio Grande do Sul, Brazil; March 10, 1925; deposited in the American Museum of Natural History. Allotype, female; Rio Natal, Santa Catarina, Brazil; A. Maller, collector; deposited in the American Museum of Natural History. Paratypes (11): Males (six), same data as for holotype (one) deposited in the American Museum of Natural History; Lages, Brazil; no date (two), deposited in the British Museum (Natural History); January 14, 1953 (one), deposited in the United States National Museum of the Smithsonian Institution; Tibagyó, Paraná, Brazil, no date (two), deposited in the American Museum of Natural History. Females (five): same data as for holotype (one), deposited in the American Museum of Natural History; Lages, Brazil, no date (two), deposited in the British Museum (Natural History); Tibagyó, Paraná, Brazil, no date (two), deposited in the American Museum of Natural History.

DISTRIBUTION: Brazil: Rio Grande do Sul; Lages; Santa Catarina, Natal; Paraná, Tibagyó.

REMARKS: This and the preceding species apparently are closely related and readily confused but may be distinguished by the coarse black spotting on the head and pronotum of *maculosa* and by the differences in the pygofers. The absence of prominent antecular spinous processes in both species is a good diagnostic character and resembles the condition found in *latiloba* Stål; indeed, the several examples in the British Museum collection were erroneously identified as the latter species. The smaller size of *maculosa* and *lipoloba*, both with fine dense puncturation, differentiates them from *latiloba*.

*Dryptocephala punctata* Amyot and Serville

Figures 8, 27, 28

*Dryptocephala punctata* AMYOT AND SERVILLE, 1843, p. 119. FIEBER, 1851, p. 434. STÅL, 1872, p. 4. BERG, 1879, p. 36. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

*Dryptocephala divergens* VOLLENHOVEN, 1868, p. 178.

DIAGNOSIS: Very densely punctured above and beneath; connexival

incisures marked with conspicuous black triangle, with central, flavescent eye; antennal segments IV and V almost entirely black, only their very narrow bases flavescent.

**SPECIFIC CHARACTERS:** Pale fulvous or reddish testaceous; punctures mostly ferruginous and fuscous above, fine, very dense, mostly closer together than their own diameters, somewhat confused; punctures beneath piceous, somewhat coarser.

Head (fig. 8) about two-thirds as long as median length of pronotum and about one-fourth wider between eyes than long; juga not much longer than wide, their inner margins divergent, apical incisure elongate, inner apical angles rectilinear, outer apical angles obtusely rounded, disc distinctly concave; anteocular processes rather short, barely longer than wide, their apices hardly attaining middle of jugal margins. Antennae pale flavescent, basal three segments with fine black stipples, apex of segment III, and most of segments IV and V, piceous, only very narrow bases of latter flavescent; segmental ratios: 30/30/40/50/70, i.e., segments I and II equal, each shorter than segment III.

Pronotum (fig. 8) subreniform, more than two and one-half times as wide as long; width across greatest diameter not more than greatest width across abdomen; anterolateral margins feebly convex-arcuate, slightly irregular, obscurely erose; anterior apical angles rectilinear, not surpassing a line drawn through middle of eyes; punctures fine, congested, with few larger ones near anterolateral margins; disc very vaguely rugulose. Scutellum very little longer than wide at base, apex somewhat broadly rounded; punctures very fine, ferruginous, many aggregated in short lines and small clusters; surface vaguely rugulose. Hemelytra more regularly punctured than elsewhere, punctures ferruginous except for few larger piceous ones on basal portion of embolium; costal margin very obtusely ampliate opposite base of abdomen; membranes pale, smoky amber, veins pale brown. Connexivum flavescent, punctures pale reddish ferruginous, rather regularly spaced; anterior and posterior margins of segments broadly banded with black, band of each anterior margin dilated toward lateral margin to form a conspicuous black triangle at incisures with central yellow eye; apical angles of segments rectilinear, not produced.

Ventral punctures quite dense, somewhat coarser than those above, tending to become denser toward lateral margins. Legs flavescent, femora and tibiae densely spotted with black dots. Lateral ends of abdominal margins and adjacent lateral margins at incisures narrowly black. Median portion of first visible abdominal segment slightly tumid; median abdominal furrow obsolete.

Basal plates of female genital valves subtrapezoidal, about as long as wide, their apical margins truncate, converging medially, their inner margins somewhat thickened, forming double, obtuse carina; apical plates small, short, not exceeding apex of abdomen.

Pygofer (figs. 27, 28) subglobular; lateral apical lobes stout, barely half again as long as wide, dorsal surfaces strongly concave, apices narrowly rounded; elevation on floor of genital cup between lateral apical lobes and parameres in form of stout, obtuse, oblique ridge appressed to parameres; proctiger stoutly ovate; parameres not much longer than proctiger, in dorsal aspect (fig. 27) thin, compressed digitiform, feebly dilated at apex and declivous, with acute ventral cusp; ventral apical margin between lateral apical lobes, reflexed, bisinuate, with small median notch (fig. 28); submarginal impression broad, quite shallow.

This species averages 11.0 mm. in length; 6.0 mm. in greatest width across pronotum.

TYPE MATERIAL: Holotype, female; Brazil; no date; deposited in the Muséum National d'Histoire Naturelle, Paris.

DISTRIBUTION: Brazil: Rio de Janeiro; Nova Teutonia; São Paulo. Peru: Tingo Maria; Upper Marañón River. Venezuela: Llanos.

REMARKS: This widely distributed and rather readily recognized species of *Dryptocephala* has frequently been erroneously identified by numerous early workers. The conspicuous design of yellow and black banding on the connexivum and over-all, somewhat darker coloration makes its identification rather simple.

### *Dryptocephala dentata* Fieber

Figures 9, 29, 30

*Dryptocephala dentata* FIEBER, 1851, p. 433. STÅL, 1858, p. 16; 1872, p. 4. BERG, 1879, p. 36. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

DIAGNOSIS: Juga elongate, apically acute; connexival angles subacute, somewhat produced; anterolateral pronotal margin distinctly erose; anterior apical angles of pronotum acute.

SPECIFIC CHARACTERS: Broadly oval, mildly convex above, distinctly convex beneath; densely, finely fuscopunctate to nigropunctate, most punctures as far apart as their own diameters, some closer together; beneath more coarsely punctured.

Head deeply incised apically; juga almost twice as long as wide, apices acute, or acutely rounded, lateral margins obliquely truncate for nearly half of length of margin; anteocular processes prominent, their acute apices reaching middle of juga or nearly so; punctures dense,

many occurring in pairs; disc sparingly pilose. Antennae flavescent, three basal segments stippled with fine black points, many tending to coalesce, apices of segments III, IV, and V black; segmental ratios: 35/40/55/60/-60, i.e., segment II distinctly shorter than segment III.

Pronotum subreniform, about two and one-half times as wide as long; anterolateral margins mildly convex-arcuate, distinctly erose, anterior apical angles acute, not surpassing line drawn through eyes, posterior angles roundly rectilinear; punctures coarsest on explanate marginal areas, central portion of disc irregularly rugulose. Scutellum essentially equilateral, apex evenly rounded, disc somewhat rugulose. Costal margin of hemelytra very obtusely angled near base, proximal portion of embolium with a few coarse black punctures, external apical angle of corium roundly rectilinear; discal punctures ferruginous, some rather widely spaced; membranes pale, essentially colorless, veins faintly pale brown. Connexivum widely exposed, flavescent, with some orange-red tints, punctures ferruginous and fuscous, moderately dense, anterior margin of each segment, apical segmental angles, and small spot on middle of lateral margin black.

Under surface rather densely punctured, punctures on abdomen becoming denser laterally. Rostrum reaching mesocoxae. Legs flavescent, femora and tibiae with conspicuous, irregularly spaced, fuscous spots. Median portion of first visible abdominal segment weakly tumid; median furrow obsolete.

Basal plates of female genital valves subtrapezoidal, slightly wider than long, apical margins truncate, convergent medially; apical plates narrowly triangular, slightly exceeding apex of abdomen.

Pygofer (figs. 29, 30) broadly ovate; lateral apical lobes widely divergent, elliptical-triangular, margins somewhat sinuate, apices acutely rounded, dorsal surfaces concave; genital cup shallow, elevation on its floor between lateral apical lobes and parameres in form of obtuse ridge appressed to parameres; proctiger ovate to subconical; parameres compressed digitiform, rather straight, convergent apically, apices declivous, slightly expanded, inner margins truncate and with minute acute cusp, dorsal basal portion of each paramere with short acute keel; ventral apical margin (fig. 30) reflexed, shallowly bisinuate, with small median notch; submarginal impression somewhat crater-like but shallow.

This species averages 10.0 mm. in length; 7.5 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, female; Brazil; no date; deposited in the Naturhistorisches Museum, Vienna.

DISTRIBUTION: Brazil. Uruguay: Montevideo.

REMARKS: Stål was the first to synonymize this species with *punctata*. Amyot and Serville, and others, have followed in his footsteps, but the two species are distinctly different in the form of the juga, the size of the apical incisure, their color markings, the degree to which the connexival angles are produced, and the nature of the pygofer. Each deserves specific status.

*Dryptocephala obtusiceps* Stål

Figures 10, 31, 32

*Dryptocephala obtusiceps* STÅL, 1872, p. 4. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

DIAGNOSIS: Juga stubby, apically obtusely rounded, contiguous for most of length, apical incisure short or obsolescent; connexival sutures not conspicuously black.

SPECIFIC CHARACTERS: Quadrately oval, equally convex above and beneath; sordid testaceous, punctures pale ferruginous, fine, rather dense, somewhat unevenly distributed, those beneath slightly darker.

Head three-fifths of median length of pronotum, one-third wider between eyes than long; disc shallowly concave; anteocular processes triangular, barely twice as long as wide, their apices acute, hardly reaching middle of jugal margins; juga oval, not much longer than wide, their apices rather broadly rounded, their inner margins contiguous for most of length, apical incisure triangular, rather small, shallow. Antennae flavescent, basal three segments finely stippled with black, apices of segments III, IV, and V piceous; segmental ratios: 30/30/40/-50/60, i.e., segment II equal to I, about one-fourth shorter than III.

Pronotum subreniform, not quite two and one-half times as wide as long; anterolateral margins weakly convex-arcuate, feebly erose, anterior apical angles rectilinear, very slightly exceeding line drawn through eyes; posterior angles obtusely rounded, followed by shallow, obtuse sinus; punctures dense, somewhat unevenly distributed, surface vaguely uneven; punctures at anterolateral margins essentially no different from others. Scutellum as long as wide at base, apex evenly rounded; central portion of disc slightly elevated and slightly uneven. Hemelytra unevenly punctured, several smooth areas visible; costal margin obtusely explanate near base, margin of proximal portion of embolium subreflexed, with a few larger, darker punctures; membranes almost colorless, with few brown dashes near center. Connexivum flavescent, with slight orange suffusion; punctures pale, somewhat unevenly spaced, narrow anterior margin of each segment, apical angles, and small spot near middle of lateral margin black; apical angles rectilinear, not produced.

Central punctures on abdominal venter somewhat more widely spaced than lateral ones. Median sulcus of metasternum well defined. First visible abdominal segment with distinct umbonate tumidity. Lateral ends of abdominal sutures with very short and very thin black dash.

Basal plates of female genital valves trapezoidal, wider than long, apical margins feebly sinuate, essentially truncate, convergent medially, inner margins narrowly reflexed, but not thickened; apical plates subconical, short, just reaching apical margin of abdomen.

Pygofer (figs. 31, 32) ovate; lateral apical lobes stubby, broadly triangular, strongly divergent, dorsal surfaces concave, apices acutely rounded; elevation on floor of genital cup between lateral apical lobes and parameres stout, bluntly subconical, not appressed to paramere except near base, its crest directed obliquely toward lateral lobe; proctiger ovoid, prominent; parameres somewhat compressed, digitiform, with short, basal, acute, low, keel on dorsal surface, apical ends declivous, slightly expanded; ventral apical margin (fig. 32) reflexed, medially produced into acute triangle, with very small median notch which is subtended by a pyriform submembranous fovea; submarginal impression transversely oval, rather shallow.

This species averages 11.5 mm. in length; 7.5 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, male; Bogotá, Colombia; no date; deposited in the Naturhistoriska Riksmuseum, Stockholm.

DISTRIBUTION: Colombia: Bogotá. Peru: Tingo Maria. Brazil: São Gabriel. Ecuador: Libertad. Panama: Darien.

REMARKS: This species is apparently abundant in the upper Amazon basin, the highlands of northwestern South America, and lower Central America. It is a species that is rather difficult to differentiate from *lurida* which it closely resembles. In fact, the male genitalia of the two species are very much alike. The principal diagnostic feature of *obtusiceps*, as the name implies, is that the inner margins of the juga are usually contiguous for most of their length, and that their apical margins are obtusely rounded rather than truncate, as in *lurida*.

*Dryptocephala dentifrons* (Latreille)

Figures 11, 17, 19, 33, 34

*Pentatoma dentifrons* LATREILLE, 1811, p. 265, pl. 17, fig. 8.

*Dryptocephala dentifrons*: STÅL, 1872, p. 5. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

DIAGNOSIS: Apical margins of juga rounded, inner margins divergent, contiguous only at base; connexival angles subacute, slightly produced.

**SPECIFIC CHARACTERS:** Sordid-testaceous; punctures ferruginous to fuscous, quite dense, somewhat unevenly distributed, especially on scutellum; beneath sordid flavescent, punctures castaneous to fuscous, rather dense, finer ones aggregating laterally.

Head (fig. 11) feebly concave, almost flat, one-third wider between eyes than long; juga oval, slightly longer than wide, contiguous basally, then divergent, apical margins evenly rounded; apices of anteocular processes acutely rounded, not reaching middle of jugal margins; punctures ferruginous, unevenly distributed. Antennae flavescent, basal three segments stippled with fine, black points, apical portions of segments III, IV, and V piceous; segmental ratios: 30/30/45/60/60, i.e., segment III half again as long as segment II.

Pronotum (fig. 11) about two and one-half times as wide as long; anterolateral margins erose, anterior apical angles roundly rectilinear, reaching line drawn through anterior margins of eyes, posterior angles obtusely rounded; punctures dark ferruginous, dense, about as far apart as own diameters, some closer together, more or less regularly distributed, not becoming conspicuously larger toward anterolateral margins. Scutellum about one-fourth longer than wide at base, vaguely rugose, with pair (1+1) of vague impressions in vicinity of area where frena end; postfrenal margins feebly convergent, apex somewhat narrowly rounded; punctures irregularly disposed. Hemelytra more finely and densely punctured than elsewhere, slightly unevenly distributed, with few smooth areas evident; membranes very pale yellow, veins barely darker. Connexivum sordid flavescent, each segment with orange-red, low umbo; punctures ferruginous and fuscous, regularly distributed; posterior margin and apical angle of each segment narrowly black, in some cases obscurely so; apical segmental angles subacute, vaguely cuspidate, and slightly produced.

Under surface of head punctured in vicinity of bucculae. Mesosternum with few punctures. Ostiolar peritreme not exceeding middle of plate; median portion of first visible abdominal segment distinctly tumid.

Basal plates of female genital valves trapezoidal, very slightly wider than long, densely punctured, apical margins very feebly sinuate, convergent medially, inner margins contiguous for entire length, feebly reflexed; apical plates short, apices obtusely rounded, feebly exceeding apical margin of abdomen.

Pygofer (figs. 19, 33, 34) ovate; lateral apical lobes short, barely longer than wide, strongly divergent, apically acute, dorsal surface distinctly concave; obtuse, stout, subconical elevation on floor of genital cup between lateral apical lobes and parameres; proctiger broadly ovate;

parameres (dorsal aspect) digitiform, with distinct basal carina on dorsal margin, rather straight, appressed to proctiger, convergent apically, and apically slightly expanded, inner apical margins truncate, with small basal cusp, extreme apices declivous over ventral apical margin; ventral apical margin (fig. 34) reflexed, median area produced into short, broad triangle, apparently without median notch, subtended by conspicuous oval to rhomboidal glabrous fovea; submarginal impression broad, moderately shallow; aedeagus (fig. 19) black, phallosome somewhat stoutly pyriform, vesica arcuate, rapidly tapering from rather stout base.

This species averages 12.0 mm. in length; 7.5 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Type, sex unknown; Peru; no date; repository of type unknown to me.

DISTRIBUTION: Peru: Tingo Maria; Chanchamayo.

REMARKS: It is unfortunate that I have been unable to find the specimens that Latreille used in his original description, which gives characters that are essentially generic rather than specific. This species apparently is closely related to *obtusiceps* Stål, *lurida* Erichson, and *integra* Walker, from which it differs in subtle ways.

### *Dryptocephala integra* Walker

*Dryptocephala integra* WALKER, 1867 (1867-1868, pt. 1), p. 190. LETHIERRY AND SEVERIN, 1893, p. 83. KIRKALDY, 1909, p. 214.

DIAGNOSIS: Glossy; punctures pale ferruginous; anteocular processes exceeding middle of jugal margins; anterior apical angle of pronotum subacute, slightly surpassing line drawn through anterior margins of eyes.

SPECIFIC CHARACTERS: Sordid-testaceous, punctures pale ferruginous, dense, fine, about as far apart as their own diameters; venter pale testaceous, abundantly ferruginopunctate, punctures fine, sparsest toward center.

Head feebly concave; apices of anteocular processes slightly exceeding middle of jugal margins; juga subquadrangular, a little longer than wide, apical margins truncate, inner apical angles rectilinear, outer ones vaguely obtuse; inner margins divergent, apical incisure very clearly defined. Antennae testaceous, basal three segments finely stippled with fuscous points, apical portions of segments III, IV, and V piceous; segmental ratios: 30/40/50/60/75, i.e., segments progressively increasing in length, segment II longer than I but shorter than III.

Pronotum subreniform, about two and one-third times as wide as long;

anterolateral margins mildly erose, posterior angle obtuse, anterior apical angle subacute, slightly surpassing line drawn through anterior margins of eyes; surface somewhat rugulose, especially centrally, and centrally having vague transverse furrow; punctures irregularly distributed, increasing in size toward lateral margins. Scutellum slightly longer than wide at base, apex evenly rounded, disc slightly convex, rather uneven. Hemelytra somewhat more irregularly punctured, leaving numerous minute, smooth areas evident; membranes translucent, pale gray-yellow, veins concolorous. Connexivum widely exposed, testaceous, sparingly ferruginopunctate, segmental sutures and marginal incisures not conspicuously bordered with black. Tergum flavescent.

Rostrum reaching mesocoxae. Legs pale testaceous, femora and tibiae with conspicuous, widely spaced, piceous dots. Abdomen mildly convex; segmental sutures and lateral incisures concolorous with disc; connexival angles rectilinear, not produced.

Basal plates of female genital valves trapezoidal, wider than long, slightly impressed, internal and external apical angles obtusely rounded, apical and inner margins slightly elevated or reflexed.

This species measures 12.0 mm. in length; 7.5 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Holotype, female; Amazon region, Brazil; no date; deposited in the British Museum (Natural History).

DISTRIBUTION: Brazil: Amazon region.

REMARKS: The type specimen is the only example of this species that I have seen. It has many characters that cause it to be confused with both *lurida* Erichson and *dentifrons* (Latreille). Unfortunately, the absence of a male specimen prevents specifying its exact relationship with its close allies.

### *Dryptocephala lurida* Erichson

Figures 12, 35, 36

*Storthia livida* HERRICH-SCHAEFFER, 1844 (1835-1844, vol. 7), p. 42, fig. 718.

*Dryptocephala lurida* ERICHSON, 1848, p. 609. KIRKALDY, 1909, p. 214.

*Dryptocephala truncata* FIEBER, 1851, p. 433.

*Dryptocephala livida*: STÅL, 1872, p. 4. LETHIERRY AND SEVERIN, 1893, p. 83.

DIAGNOSIS: Apex of head truncate, inner angle of jugum rectilinear; anteocular processes rather short, not reaching middle of jugal margins; anterior margin of each connexival segment narrowly black.

SPECIFIC CHARACTERS: Brownish testaceous, punctures fuscous, fine, moderately dense; beneath paler, punctures ferruginous to fuscous, spar-

ingly distributed centrally; a short black dash on each abdominal suture adjacent to lateral incisures.

Head slightly more than one-third wider between eyes than long; disc mildly concave; juga somewhat quadrate, inner margins contiguous for short distance just before tylus, apices truncate, inner apical angles rectilinear, apical incisure narrowly V-shaped, outer angles rounded; antocular processes flat, triangular, barely twice as long as wide, apices acute, not reaching middle of jugal margins; punctures ferruginous, moderately dense, somewhat unevenly distributed. Antennae flavescent, basal three segments stippled with black, apical portions of segments III, IV, and V piceous; segmental ratios: 30/30/40/40/50, i.e., segment II one-fourth shorter than III.

Pronotum slightly more than two and one-half times as wide as long, no wider across greatest diameter than across widest portion of abdomen; anterolateral margins mildly arcuate, feebly irregular, but not distinctly erose, in some specimens almost entire; anterior apical angles rectilinear to mildly acute, reaching line drawn through middle of eyes, posterior angles obtuse; punctures quite dense, fine, as far apart as their own diameters, many closer together, those on posterior portion of disc arranged in short, irregular, transverse lines, numerous minute smooth points visible, surface vaguely uneven. Scutellum very slightly longer than wide at base, apex somewhat broadly rounded, surface transversely rugulose; punctures similar to those on pronotum. Hemelytra just about reaching apex of abdomen, punctures on corium more irregular than those on embolium, leaving small, irregular, pale points visible; membranes sordid smoky yellow, veins and some central spots pale brown. Connexivum flavescent, in most cases with orange-red spot; punctures ferruginous, narrow anterior margin of each segment, the apical segmental angles, and a small spot on anterior half of each lateral margin, black; segmental angles rectilinear, not produced.

Sulcus of metasternum well defined, apex of rostrum usually lying in this sulcus. Median portion of first visible abdominal segment distinctly tumid, weakly umbonate.

Basal plates of female genital valves trapezoidal, about as long as wide, apical margins truncate, weakly convergent medially, inner margins contiguous for entire length, slightly thickened toward apical ends.

Pygofer (figs. 35, 36) ovate; lateral apical lobes strongly divergent, concave, triangular, apices acute, lateral margins feebly sigmoid; proctiger ovoid, moderately prominent; parameres (dorsal aspect) compressed-digitiform, dorsal margins acute but not keeled, apical ends slightly dilated, weakly declivous, apices acute; floor of genital cup with pair

(1 + 1) of stout, elevated, slightly compressed, prominent elevations between lateral apical lobes and parameres; ventral apical margin (fig. 36) reflexed, somewhat broadly triangular in outline, with minute median notch subtended by elliptical shallow fovea; submarginal impression transversely oval, shallow.

This species averages 12.0 mm. in length; 7.5 mm. in width across greatest pronotal diameter.

TYPE MATERIAL: Type, sex unknown; Colombia; no date; repository of type unknown to me.

DISTRIBUTION: Colombia. British Guiana. Argentina: Misiones; Corrientes. Brazil: Santarem.

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