

**A KEY TO THE PAKISTANI GENERA AND SPECIES OF THE HISPINAE AND CASSIDINAE
(COLEOPTERA: CHRYSOMELIDAE), WITH DESCRIPTION OF A NEW SPECIES FROM
WEST PAKISTAN INCLUDING THE ECONOMIC IMPORTANCE**

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Keys (with distinguishing characters) are provided for the genera and species of the Hispinae and the Cassidinae of West and East Pakistan. A new species (*H. yunusi* Abdullah & Qureshi) of *Hispa* Linnaeus, 1767 is described from West Pakistan. This is for the first time that the genus has been discovered in West Pakistan. The taxa treated in this paper are pests of economic importance.

Introduction

The Hispinae and the Cassidinae, collectively called as Cryptostomes, are pests of economic importance. They are more common and numerous in East Pakistan than in West Pakistan. Larvae of the Hispinae live inside the tissues of leaves throughout their development and are leaf-miners but the larvae of the Cassidinae are free-living. Some records of host plants are given in Table 1.

A Key to the Genera and Species of the Hispinae of West Pakistan
(Maulik, 1919)

1. Antennae 11-segmented; prothorax and elytra without lateral projections from the sides 3

Antennae 9-segmented; prothorax and elytra with lateral projections
Platypria Guerin, 1840 2

2. Antennae robust, hardly reaching beyond the scutellum; prothorax with the lateral lobe on each side uniformly rounded; elytra with the spines and tubercles much lower
P. andrewesi Weise, 1906

Antennae fine, reaching much beyond the scutellum; elytra with the anterior lateral lobe on each side with five spines
P. hystrix (Fabricius, 1789)
Guerin, 1840

3. Antenna with first to sixth segments with dorsal spines; tarsal claw double, equal
Hispella Chapuis, 1875

antennae short and stout, first segment with five dorsal spines
H. brachycera Gestro, 1897

Antenna without any dorsal spine 4

4. Prothorax with the front border with spines
Dactylispa Weise, 1897 5

Prothorax with the front border without spines
Hispa Linnaeus, 1767
first four prothoracic spines longer than the first two antennal segments combined
H. yunusi Abdullah & Qureshi, new species

5. Black-
D. brevispinosa (Chapuis, 1877)
Maulik, 1919

Reddish-brown, with two longitudinal bands on the prothorax, the extreme tips of the thoracic spines, all the discal spines on the elytra (except the smaller humeral ones), two large spines on the margin below the humerus and a few at the external apical angles, and the sides of the meso- and metasterna, black *D. vestita* Maulik, 1919

TABLE 1.—ECONOMIC IMPORTANCE OF THE HISPINAE.

Pest species	Host plants	Localities
<i>Asamangulia</i> sp.	Sugar-cane	Java
<i>Bronthispa froggatti</i>	Coconut	Solomon Island
<i>Callispa kilimana</i>	Maize	East Africa
<i>Estigmene chinensis</i>	Bamboo shoots	India & Pakistan
<i>Hispa armigera</i>	Rice-plant	India & Pakistan
<i>H. striaticollis</i>	Maize	East Africa
<i>Leptispa pygmaea</i>	Rice-plant	India & Pakistan
<i>Monochirus callicanthus</i>	Rice-plant	Formosa
<i>Phidogonta modesta</i>	Sugar-cane	India & Pakistan
<i>Platypria hystrix</i>	Agathi	India
<i>P. andrewesi</i>	Erythrina	Ceylon
<i>Promecothea antiqua</i>	Coconut	New Guinea and Solomon Island
<i>P. coeruleipennis</i>	Coconut	Fiji
<i>P. cumingi</i>	Coconut shoots	Philippine
<i>P. opacicollis</i>	Coconut	New Hebrides
<i>P. reichei</i>	Coconut	Samoa
<i>Wallacea dactyliferae</i>	Date-palm	India and Pakistan

**A Key to the Genera and Species of the
Cassidinae of West Pakistan**

(Maulik, 1919)

1. Head not completely concealed under the explanate margin of the prothorax dorsally 2

Head completely concealed under the explanate margin of the prothorax dorsally 3

2. Body oblong-ovate; prothorax not narrower than the elytra at the base, with very slightly reflexed margin *Epistictia* Boheman, 1850
pronotum with two well-defined spots and elytra with nine (or seven) greenish or bluish patches
E. viridimaculata Boheman, 1850

Body subquadrate; antennae clubbed; elytra with the basal margin not denticulate

Hoplionota Hope, 1840

ground-colour brown, with the tubercles on the elytra, the scutellum, and two small spots on the pronotum black, and the four corners of the elytral expansion each with a black spot

H. maculipennis Boheman, 1856

3. Claws with a comb-like structure on the inner as well as the outside, or at least indented on the outside; body triangular, being narrowed posteriorly *Laccoptera* Boheman, 1855
the explanate margins of elytra at the base with a patch of the same colour as that of the disc and bordered behind with black, the rest of the margin being paler and hyaline

L. quadrimaculata (Thunberg, 1789) Weise, 1910

Claws without a comb-like structure at the base 4

4. Eye on the outer side has a channel for the reception of the antennae; antennae short and stout, not reaching the posterior edge of the pronotum *Oocassida* Weise, 1897
elytra with less than three red stripes; a faint red stripe along the suture

O. pudibunda (Boheman, 1858) Weise, 1897

Eye on the outer side has no channel for the reception of the antennae; body always smaller, generally oval; the upper surface of the elytra never strongly costate or rugose; antennae shorter than half the body *Cassida* Linnaeus, 1758 5

5. Upper side testaceous, sometimes with a greenish tint; without any markings; insect smaller (3¼–4 mm); the interspace between the second and third rows of punctures narrower

C. pusillula Boheman, 1862

Upper side with markings.... 6

6. All the interstices more or less equally costate; the punctures large with dark centres
C. icterica Boheman, 1854

The second costa more strongly costate than the other 7

7. Elytra variegated with brownish black and yellow, the latter colour being generally on the elevated portions; spots coalescing tending to form lateral bands, the elevated place on the elytra with a longitudinal patch

C. sylvatica Boheman, 1856

Elytra not thus variegated; spots on the disc of each elytra coalescing to form an irregular longitudinal yellow band

C. catenata (Boheman, 1855)

Maulik, 1919.

**A Key to the Genera and Species of the
Hispininae of East Pakistan**

(Maulik, 1919)

1. Sides of the prothorax with spines; body as a rule spiny, but sometimes tuberculate 2

Sides of the prothorax without spines 27

2. Antennae 11-segmented; prothorax and elytra without lateral projections from the sides 4

3. Antennae robust, hardly reaching beyond the scutellum; the lateral lobe on each side of the prothorax drawn forwards; the spines and tubercles of the elytra higher *P. erinaceus* var. *bengalensis* Gestro, 1897

Antennae fine, reaching much beyond the scutellum; elytra covered with whitish hairs; the punctures large, subquadrate, and contiguous; the spines and tubercles numerous, strong, and reddish *P. echidna* Guerin, 1840

4. Antenna with a dorsal spine at least on the first segment; claws pointed

Monochirus Chapuis, 1875

antennal club very thick

M. sthulacundus Maulik, 1915

Antenna without any dorsal spine 5

5. The front border of the prothorax with spines *Dactylispa* Weise, 1897 8

The front border of the prothorax without spines *Hispa* Linnaeus, 1767 6

6. Upper surface of the prothorax with an almost circular flattened area in the middle
H. aerea Gestro, 1897
- Upper surface of the prothorax with no such well-defined area 7
7. Spines are straight and short, hardly longer than the two basal joints of the antennae
H. armigera Olivier, 1808
- Spines are curved and long, much longer than two basal joints of the antennae
H. birendra Maulik, 1919
8. Prothorax on each side with two spines
D. doriae Gestro, 1890
- Prothorax on each side with three spines 9
9. Insect entirely black, elytra sometimes with bluish or brassy reflections 10
- Insect neither entirely black, nor so coloured 13
10. Length 2½–3 mm; antennae clubbed, with the first joint truncate at the apex 11
- Length 4–6 mm.; antennae not clubbed 12
11. Pronotum without any smooth discal areas
D. dilaticornis (Duvivier, 1891)
Gestro, 1907
- Pronotum with a single oval area
D. assamensis Weise, 1904
12. Discal and marginal spines of elytra minute
D. brevispinosa Chapuis, 1877
- Discal and marginal spines of elytra longer; stalk of the two anterior spines of the prothorax much shorter than the first spine
D. peregrina Maulik, 1919
13. Prothorax with three lateral spines arising independently; not stalked; insect broad; marginal spines of the elytra flattened, discal spines very short 14
- No such combination of characters 16
14. Upper side red; discal spines of the elytra black; without three black fasciae on each elytra
D. harsha Maulik, 1919
- Upper side black; antennae, legs and abdominal sternites yellow 15
15. Upper side entirely black; interocular space without a depression; sides of prothorax parallel behind the spines: apical margin of elytra with minute spines *D. xanthopus* (Gestro, 1898)
Maulik, 1918
- Upper side more brownish than black, elytral margins not lighter; underside (except the legs and the abdominal sternites) black
D. bindusara Maulik, 1919
16. Prothorax with the third lateral spine long, at least not shorter than either of the anterior two; lateral spines of the prothorax equally long
D. lohita Maulik, 1919
- Prothorax with the third lateral spine shorter than either of the anterior two 17
17. Interocular space elevated above the level of the eyes, interantennal ridge prominent, bases of antennae in depressions; elytra enormously long
D. nandana Maulik, 1919
- These characters absent 18
18. Antennae clubbed; colour black, with the elytra, spines and mouth-parts brown
D. dilaticornis (Duvivier, 1891)
Gestro, 1907
- Antennae not clubbed; colouring different 19
19. Body yellow to red-brown; suture black for a short distance at base, discal spines of elytra black, of these three or four humeral and three parallel to the apical margin longer than the others; sometimes with an oblique black stripe from the humerus to the suture
D. atkinsoni (Gestro, 1897)
Maulik, 1919
- No such combination of characters 20
20. Pronotum testaceous-ferruginous, with six black spots
D. montivaga (Gestro, 1898)
Maulik, 1919
- Pronotum without six black spots 21
21. Ground colour of upper side black, sometimes with dark brown patches, legs pale yellow to red-brown 22
- Ground colour of upper side yellow-brown to dark-brown with the elytral spines black 23
22. Pronotum with very small narrow longitudinal area in the middle
D. pugnax (Gestro, 1899)
Gestro, 1907

- Pronotum concave, with a strongly raised convex area in the middle; third lateral spine of prothorax not stalked with the anterior two
D. variabilis Maulik, 1919
23. Prothorax with the third lateral spine curved back like a hook
D. gonospila (Gestro, 1897) Maulik, 1919
- Prothorax with the third lateral spine not so curved 24
24. Prothoracic spines with one or two spinules; the two anterior lateral spines with a characteristically curved and flattish stalk
D. vestita Maulik, 1919
- These characters are absent 25
25. Pronotum with a slightly impressed area on each side and a raised smooth area in the middle
D. elegantula (Duvier, 1892) Maulik, 1919
- Pronotum with a transversely raised smooth area in the middle 26
26. Antennae, head and prothorax bright yellow-brown; pronotum with two faint black patches
D. kamarupa Maulik, 1919
- Antennae black, sometimes brownish black, basal segment never lighter
D. soror Weise, 1897
27. Elytra with a short row of punctures on each side of the scutellum (Scutellar row of punctures) 35
- Elytra without a scutellar row of punctures 28
28. Prothorax with its sides not parallel; the costae on the elytra much higher and well developed throughout 30
- Prothorax with its sides parallel; the three principal costae on each elytra are much lower, and sometimes broadened and flattened at base
Downesia Baly, 1858 29
29. Rows of punctures between the suture and the first costa uniting at about the middle or just in front of the middle (anteriorly) and continuing to the base as one row; prothorax not distinctly broader; interstices at the apex imperceptibly elevated
D. gestroi Baly, 1888
- Rows of punctures between the suture and the first costa uniting usually at the apex or behind the middle and then continuing as one row; abdomen brown
D. atrata Baly, 1869
30. Prothorax almost cylindrical, slightly narrowed in the middle with the lateral margins smooth and even
Agonia Weise, 1905 31
- Prothorax not cylindrical, broadest in the middle, the lateral margins as a rule toothed and rough
Gonophora Baly, 1858
antennae long, pronotum usually with five maculae
G. pulchella Gestro, 1888
31. Elytra entirely of one colour 32
- Elytra not entirely of one colour 33
32. Elytra yellow; on the apical area between the third costa and the lateral margin two rows of punctures
A. pallidipennis Maulik, 1919
- Elytra about half from the apex is black, the lines between the reddish and black portions being well-defined; size large
A. himalayensis Maulik, 1919
33. Between the suture and the first costa at least three rows of punctures 34
- Between the suture and the first costa two rows of punctures; the external costa is not obliterated in the middle
A. immaculata (Gestro, 1888) Maulik, 1919
34. Between the first and second costae three rows of punctures; size smaller, 12 mm
A. saundersi Baly, 1858
- Between the first and second costae more than three rows of punctures; size larger, 14 mm
A. cherapunjiensis Maulik, 1919
35. Upper border of the circular cavity in which the mouthparts are situated is in close proximity to the roots of the antennae; the clypeus therefore entirely wanting or at most in the form of a small transverse streak 38
- Upper border of the oral cavity is separated from the roots of the antennae by a triangular, quadrate or straight clypeus; body wedge-shaped, being broader posteriorly
Prionispa Chapuis, 1875 36
36. External apical angles of the elytra right angled 37

- External apical angles produced or expanded; colour black with bronze reflections; antennae long
P. tenuicornis Gestro, 1910
37. Colour reddish brown; prothorax and elytra not marked with vittae
P. himalayensis Maulik, 1915
- Colour of head, prothorax and elytra black
P. sonata Maulik, 1919
38. Prothorax with its lateral angles without bristles 39
- Prothorax with its lateral angles with bristles 41
39. Antennae fairly robust and cylindrical; elytra flattened towards the apex, and projecting a little beyond the abdomen
Botryonopa Blanchard, 1845
- elytra with the anterior part red and posterior half shining metallic blue
B. sheppardi Baly, 1858
- Antennae more slender; elytra convex and projecting much beyond the abdomen
Macrispa Baly, 1858 40
40. Size larger (25.5 mm); apices of antennal segment clavate; thorax less constricted in front; elytra opaque, fulvous; lunate depression on last abdominal sternite (O) broader
M. saundersi Baly, 1858
- Size smaller (22 mm); apices of antennal segment not clavate; thorax suddenly constricted in front; elytra subnitid, rufous; ventral depression narrower
M. krishnalohita Maulik, 1915
41. Prothorax with a fine bristle on each of the anterior angles 42
- Prothorax with a fine bristle on each of the posterior angles 46
42. Prothorax with its anterior edge emarginate in the middle
Estigmene Hope, 1840
- elytra not scaly *E. chinensis* Hope, 1840
- Prothorax with its anterior edge not emarginate in the middle 43
43. Labrum short, on a lower plane than the clypeus, its transverse edge emarginate and covered with long and stiff hairs; upper side of the body shining; elytra without pronounced ribs
Anisoderopsis Maulik, 1916 44
- Labrum large, on the same plane as the clypeus, its transverse edge straight and sparsely covered with hairs; upper side of the body as a rule, opaque or subnitid; elytra with pronounced costae
Anisodera Cheverolat, 1847
- prothorax more quadrate
A. guerini Baly, 1858
44. Insect narrow and elongate 45
- Insect much broader and larger; head, antennae, prothorax, sternum and legs are black; the rest of the body being chestnut-brown
A. excavata Baly, 1858
45. Insect entirely black, very elongate; alternate interstices on the elytra raised towards the apex
A. nigra Maulik, 1919
- Insect dark brown, not very elongate, sub-cylindrical in form *A. cylindrica* (Hope, 1831) Maulik, 1913
46. Eyes prominent; upper surface of the prothorax with depressions; scutellum small, transverse, quadrate, its posterior border always rounded
Callispa Baly, 1858 47
- Eyes small and almost flat; upper surface of the prothorax without any depressions
Amblispa Baly, 1858
- Insect entirely shining blue-black
A. laevigata (Guerin, 1844) Baly, 1858
47. Upper side reddish yellow, elytra with four spots, and a narrow stripe from the humerus to the middle or a little beyond
C. arcana Duvivier, 1892
- Upper side without spots or stripes 48
48. Body oblong-ovate, shining dark brown to yellow, the posterior half of the elytra being purple
C. mungphua Maulik, 1919
Body ovate, blue *C. assama* Maulik, 1919

**A Key to the Genera and Species of the
Cassidinae of East Pakistan**

(Maulik, 1919)

1. Head dorsally not completely concealed under the explanate margin of the prothorax 2

Head dorsally completely concealed under the explanate margin of the prothorax 8

2. Body oblong or oblong-ovate 3

Body subquadrate or rotundate 4

3. Prothorax much narrower than the elytra at the base and with strongly reflexed margins; body oblong *Calopepla* Hope, 1840
insect broad; prothorax light yellow to dark red-brown; elytra greenish bronze with a bluish violet margin; generally only the first two joints of the antennae share the colour

C. leayana (Latreille, 1807)
Maulik, 1913.

Prothorax not narrower than the elytra at the base, with very slightly reflexed margin, body oblong-ovate *Epistictia* Boheman, 1850
pronotum with two well-defined spots and elytra with nine (or seven) greenish or bluish patches
E. viridimaculata Boheman, 1850

4. Antennae clubbed; basal margin of elytra not denticulate *Hoplionota* Hope, 1840 5

Antennae subfiliform; basal margin of elytra denticulate *Prioptera* Hope, 1840 6

5. Interocular prolongation truncate at the apex; body broadest behind the middle, narrowest between the prothorax and elytra; antennal club very short; the principal tubercle sending off four costae *H. duvivieri* Spaeth, 1913

Interocular prolongation not pronounced, not broader at the apex than at the base; colour of upper side pitch-black, with two small transparent yellow patches on each side on the elytral expansion which is laterally produced just behind the anterior lateral angles of the elytra, and then narrowed posteriorly

H. tenuicula Spaeth, 1913

6. Upper surface of elytra rough owing to the deep punctures and raised interstices 7

Upper surface smooth, without raised interstices, but sometimes punctate; oblong, explanate margins of the elytra much narrowed

P. decemmaculata Boheman,
1850

7. Metasternum black

P. maculipennis Boheman, 1850

Underside uniform yellow-brown

P. punctipennis Wagener, 1877

8. Claws with a comb-like structure at the base 9

Claws without a comb-like structure at the base 19

9. Claws with a comb-like structure on the inner side only *Sindia* Weise, 1897 10

Claws with a comb-like structure on the inner as well as the outer side, or at least indented on the outer side 11

10. Body broad, oblong; colour light brown to dark red-brown, with black markings on the prothorax and elytra

S. clathrata (Fabricius, 1798)
Weise, 1897

Body ovate, convex; colour testaceous and shining, with two round black spots on the pronotum; elytra with two round common spots, one behind the scutellum and the other a smaller one at the apex of the suture, besides which on each elytra there are six similar spots; the middle of the prosterum and the abdominal segments black

S. sedecimmaculata (Boheman,
1856) Spaeth, 1901

11. Body rotundate or oval

Aspidomorpha Hope, 1840 13

Body triangular, being narrowed posteriorly; in some cases the claws only indented on the outer side

Laccoptera Boheman, 1855 12

Body parallel-sided or elongate; sculpturing of the elytra not rough; humeral angles not drawn forward

Conchyloctenia Spaeth, 1902

body suboblong, colour red or yellowish, elytra with a black spot at each of the four corners and two apical, sutural row of unequal black spots from the base to the apex, and a similar duplicated

- row on the outer slope of the disc near the explanate margin; the underside black, except along the margins
C. nigrovittata (Boheman, 1854)
 Maulik, 1916
12. Elytra with the explanate margin at the base with a patch of the same colour as that of the disc and bordered behind with black, the rest of the margin being paler and hyaline
L. quadrimaculata (Thunberg, 1789)
- Elytra without any differentiation of colour as above; pronotum with four or six spots
L. vigintisextnotata Boheman, 1855
13. Posterior to the scutellum the dorsal surface is raised into a pointed conical hump 14
 Posterior to the scutellum the dorsal surface is not raised into a pointed conical hump 18
14. Anterior and posterior angles of the elytral explanate margins marked with dark patches 15
 Anterior angles only thus marked 16
 Anterior nor posterior angles thus marked
A. fuscopunctata Boheman, 1854
15. Body sub-rotundate; underside yellowish brown, much lighter than the colour of the elytra; insect never larger than 8×7 mm; the upper surface of the prothorax impunctate
A. indica Boheman, 1854.
 Body rotundate; underside coloured like the upper side; insects much larger than 8×7 mm; explanate margins very broad
A. sanctaerucis (Fabricius, 1792) Boheman, 1854
16. Suture marked with dark brown at the extreme apex
A. chandrika Maulik, 1918
 Suture not dark brown at the extreme apex 17
17. Insect large, about 10×9 mm or larger
A. dorsata (Fabricius, 1787)
 Boheman, 1854
 Insect smaller, about 7½×6 mm or smaller
A. furcata (Thunberg, 1789)
 Maulik, 1919
18. Explanate margins of the elytra at their widest almost as broad as the disc
A. miliaris (Fabricius, 1775)
 Boheman, 1854
 Explanate margins of the elytra at their widest little more than half as broad as the disc; insect more elongate
A. orientalis Boheman, 1856
19. Eye on the outer side with a channel for the reception of the antennae 20
 Eye on the outer side without any channel for the reception of the antennae 24
20. Antennae short and stout, not reaching the posterior edge of the pronotum; the whole antennae lies in the channel
Oocassida Weise, 1897 21
 Only the basal segments of the antennae lie in the channel 22
21. Elytra with three faint longitudinal red stripes, one along the suture and one on each disc
O. cruenta (Fabricius, 1792)
 Maulik, 1919
 Elytra with less than three stripes; insect uniformly reddish brown and without a red stripe along the suture
O. obscura (Fabricius, 1792)
 Maulik, 1919
22. Two apical segments of the antennae passing the posterior margin of the pronotum, antennae finer; body more convex, more narrowed posteriorly
Chirida Chapuis, 1875 23
 Two apical segments of the antennae not passing the posterior margin of the pronotum, antennae more robust, body less convex and parallel-sided
Glyphocassis Spaeth, 1914
 Colour varying from pale yellow to red-brown; prothorax and elytra with a pattern in black which mainly consists of three broad black stripes united by transverse bands; five apical segments of the antennae black
G. trilineata (Hope, 1831)
 Spaeth, 1914
23. Disc of the prothorax red; colour pale yellow to reddish brown black, each with one

yellow stripe which sends out on either side several irregular transverse yellow lines

C. scalaris (Weber, 1801)
Maulik, 1919

Disc of the prothorax neither red nor black; colour shining brown, but sometimes with the prothorax and bright green with reddish reflections; suture with a red stripe, sutural stripe narrow and without any black bordering

C. septemnotata (Boheman, 1855)
Maulik, 1913

24. Body large, rotundate (9-10 × 8-9 mm); upper surface of the elytra extremely rugose; the five basal joints of the antennae almost hairless, the rest thicker than the basal segments

Thlaspidia Weise, 1899

Colour dark brown, shining, with the explanate margins paler and transparent and have a honey combed structure *T. cribrata* (Boheman, 1855)
Weise, 1899

Body always smaller, generally oval; the upper surface of the elytra never strongly costate or rugose; antennae shorter than half the body

Cassida Linnaeus, 1758 25

25. Upper side testaceous, sometimes with a greenish tint, without any markings at all 26

Upper side with markings 29

26. Testaceous with a greenish tint

C. indicola Duvivier, 1892

Without a greenish tint 27

27. Prothorax with its front edge rounded, but distinctly though slightly drawn forwards in the middle; elytral punctures not deep, fine scattered, rows irregular

C. exilis Boheman, 1854

Prothorax with front edge uniformly rounded not drawn forwards in the middle 28

28. Prothorax with its lateral angles placed more anteriorly, so that it is narrower than the base of the elytra, and the angle between the prothorax and elytra is deeper; insect smaller (3¼-4 mm), the interspace between the second and third rows of punctures narrower

C. pusillula Boheman, 1862

Prothorax with its lateral angles placed nearly on the basal line, so that it is almost as wide as the base of the elytra, and the intervening angle is not deep; insect larger (5¼ mm), at least the first two rows of punctures on the elytra finer; underside entirely black, except the sides of the abdomen

C. nigriventris Boheman, 1854

29. Dark brown, with fifteen boldly defined black spots including two on the pronotum

C. stupa Maulik, 1919

Upper side without fifteen such spots 30

30. Yellowish or yellow brown, with a few very indistinct small black specks on the elytra; generally two spots on the second costa behind the middle 31

No such marking 32

31. All the interstices more or less equally costate; the punctures large with dark centres

C. icterica Boheman, 1854

The second costa more strongly costate than the others; black spots on the explanate margin of the elytra, one below the humerus and another behind it, sometimes connected by a curve forming a circle on the explanate margin

C. petulans Spaeth, 1914

32. Disc of elytra variegated, and elytra variegated with brownish black and yellow and there is more black on the elytra, spots coalescing tending to form lateral bands; the elevated place on the elytra with a longitudinal black patch

C. sylvatica Boheman, 1856

No such markings 83

33. Elytra on each side with a band bent inwardly at the middle, which is black when the ground-colour is red-brown and red-brown when the ground colour is lighter; besides this there is generally a common patch on the suture in front of the elevated point, two spots on each elytra on the second interstices behind the middle and some more irregular spots in some cases 34

No such pattern on the elytra 36

34. Body more elongate than rounded 35

Body more rounded than elongate; ground colour light yellow, with the elytral markings red brown *C. justa* Spaeth, 1914

35. Scutellum a little distance behind have a transverse ridge *C. occurrans* Spaeth, 1914

Scutellum a little distance behind have no such transverse ridge *C. belliformis* Maulik, 1919

36. Elytra with the darker colour extending obliquely towards the lateral angles (anterior, posterior or both), staining the lighter explanate margins 37

Elytra with no such extension of darker colour towards the lateral angles 39

37. Darker colour extends towards the anterior external angles only 38

Darker colour extends towards the anterior and posterior angles; body much narrowed posteriorly *C. dorsata* Duvivier, 1819

38. Lateral angles of the prothorax narrower; the common transverse costa at the apex of the basal triangular depression on the elytra yellow; interstices more costae

C. desultrix Spaeth, 1914

Lateral angles more broadly rounded; the common transverse costa black, interstices less costate *C. cherrapunjiensis* Maulik, 1919

39. Ground-colour of the disc of the elytra and part of the pronotum uniformly pitch black; this colour contrasting with the transparent yellowish explanate margins all round; scutellum brown with the central part yellow; from the common transverse costa at the apex of the depressed basal triangular area, the short costa going towards the middle of the edge is obsolescent

C. flavoscutata Spaeth, 1914

No such combination of colours 40

40. Background a broad black stripe on each elytra along the middle, meeting its fellow posteriorly at the suture, and a short black streak at the base along the suture, sometimes extending on to the pronotum

C. circumdata Herbst, 1799

Elytral stripes very faint red-brown, but constantly found in a large number of individuals

C. varians Herbst, 1799

Not such beetles 41

41. Prothorax red; disc of each elytra with ten or eleven spots *C. conchylata* (Spaeth, 1914) Maulik, 1919

Prothorax not red 42

42. Spots on disc of each elytra coalescing to form an irregular longitudinal yellow band *C. catenata* (Boheman, 1855) Maulik, 1919

Spots not coalescing; antennal club slightly thicker and longer than segments 2-6 together *C. australica* (Boheman, 1855) Maulik, 1919

***Hispa yunusi* Abdullah & Qureshi,
new species**

(Fig. 1)

This is the only species of *Hispa* recorded from West Pakistan. This species closely resembles *H. armigera* Olivier, 1808 (*vide* Maulik, 1919) but differs in the following characters.

(1) This species is black, whereas *H. armigera* is blue-black. (2) The first two segments of the

antennae together combined are shorter than the four prothoracic spines whereas in *H. armigera* Olivier, 1808 the first two segments combined are

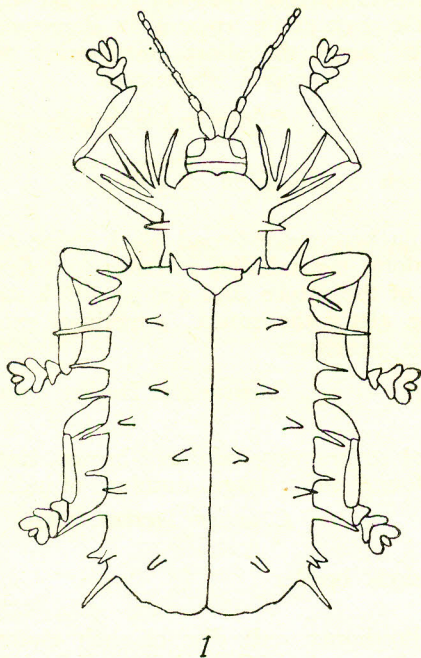


Fig. 1.—*Hispa yunusi* sp. n. dorsal view.

longer than the prothoracic spines. (3) The four prothoracic spines have a common base, the third spine is the largest whereas in *H. armigera* they are more or less of the same size. (4) The single pair of lateral spines on the prothorax are shorter and stouter than in *H. armigera*. (5) Apex of the elytra has no spine while in *H. armigera* there are two pairs of small spines at the apex. (6) The spines on the elytra are not more or less alternately long or short but arranged as shown in Fig. 1.

For other characters, see the description of *H. armigera* (Maulik, 1919: 249-250).

Holotype, Kalashah, 10. XI. 1965, M. Hafiz, in the Department of Entomology, West Pakistan Agricultural University, Lyallpur. *Paratypes*, two, without any data, one at Karachi University and other at the University of the Panjab, Lahore. Length varies from 4-5 mm.

It is a pleasure to name this species in honour of Dr. Muhammad Yunus of the Agricultural University at Lyallpur.

Reference

1. S. Maulik, *The fauna of British India, including Ceylon and Burma* (Chrysomelidae Hispinae and Cassidinae) (Taylor & Francis Ltd., London 1919).