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## New Genera and New Species of Halyini, Mainly from South India

(Heteroptera, Pentatomidae, Pentatominae)

With 117 Figures

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**Abstract.** Based on the type specimen of *Dalpada pilicornis* STÅL, from Riksmuseum, Stockholm, *Dalpada tauriformis* DISTANT, from British Museum (Natural History), London, *Halys concinna* WESTWOOD, from Hope Department, Oxford, and other specimens from British Museum (Natural History), London; R. H. F. RIPPON collection from the National Museum of Wales, Cardiff, Rijksmuseum van Natural History, Leiden; Institut Royal des Sciences Naturelles der Belgique, Bruxelles; and Universitetets Zoologiske Museum, København; four new genera, five new species and three old species are described. All these species are confined to South India, except for a single female of *Halys concinna* WESTWOOD belonging to Cardiff Museum, which was collected from Sri Lanka. This is my seventh paper on the species of the so-called genus *Dalpada*, which have been confused with *Cimex clavatus* FABRICIUS, *Halys versicolor* HERRICH-SCHAEFFER and *Dalpada pilicornis* STÅL because of their superficial resemblance to these species, but their genitalia, particularly male structures, are quite distinct on the generic as well as specific level. The reasons for close but superficial resemblance of these species to others may be warning coloration, mimicry or convergence. These phenomena are well known in groups like Lepidoptera but have not been studied as extensively in Heteroptera, particularly Pentatomidae. A Key to genera and species is also provided.

### Introduction

In my previous six papers on the species of *Dalpada sensu lato* and allied genera (listed in GH A U R I, 1980), only the last dealt with species confined to the southern hills and plains of India. The present study includes the description of four new genera based on the type material of old species, *Dalpada pilicornis* STÅL, *Dalpada tauriformis* DISTANT and *Halys concinna* WESTWOOD, and five new species. Most of these are found in south India except for the one new genus *Eupaleopada* based on *Halys concinna* WESTWOOD which not only occurs in south India but is also distributed in Sri Lanka. The types and other material used in this paper mainly belong to the British Museum (Natural History), London, but also to the R. H. F. RIPPON Collection in the National Museum of Wales, Cardiff; Hope Department, Oxford; Rijksmuseum van Natural History, Leiden; Institut Royal des Sciences Naturelles de Belgique, Bruxelles; Universitetets Zoologiske Museum, København; and Riksmuseum, Stockholm. These will be indicated at their appropriate places under „Material Examined“ in the following pages. Some of the specimens used in this study have been misidentified in the past as *Dalpada clavata* (FABRICIUS) (described as *Cimex clavatus* FABRICIUS), *Dalpada versicolor* (HERRICH-SCHAEFFER) (described as *Halys versicolor* HERRICH-SCHAEFFER) and *Dalpada pilicornis* STÅL. The present differentiation of all the taxa is based not only on external features, such as the shape of head and scent gland opening, but also on the structures of the male and the female genitalia. This inclusive view involving the technique of dissection and close examination revealed that the past misidentifications occurred due mainly to

similar-looking external features such as colour pattern. These superficial resemblances could be attributed to mimicry, convergence and warning coloration. Unless field studies are carried out, which are beyond the scope of the present investigation, the real causes will remain unexplained. All these phenomena have been extensively studied in Lepidoptera, but little attention has been paid to similar studies in the Heteroptera, and even less in Pentatomidae. A key to genera and species described so far, of *Dalpada* complex from south India, is also provided.

### Acknowledgements

I take this opportunity to express my grateful thanks to the following persons and institutions for their assistance and co-operation by providing facilities and specimens on loan for this study:

Dr. Paul FREEMAN, Keeper of Entomology, and Mr. W. R. DOLLING, both of British Museum (Natural History), London; Mr. J. DEEMING, National Museum of Wales, Cardiff; Dr. Per Inge PERSSON, Naturhistorisk Riksmuseum, Stockholm; Professor G. C. VARLEY, Hope Department of Entomology, University Museum, Oxford; Dr. Børge PETERSEN, Universitetets Zoologiske Museum, København; Dr. H. SYNAVE †, Institut Royal des Sciences Naturelles de Belgique, Bruxelles; Dr. P. H. VAN DOESBURG, Rijksmuseum van Natuurlijke Historie, Leiden.

### *Ameridarpa* gen. n.

Body elongate oval, surface shining, closely punctate, punctures black on black and yellowish patches, beautiful yellow marking on mostly dark body, not rugose; apex of head similar to that of *Dalpada sensu stricto*, length of juga slightly less than tylus, jugum at apex sinuate, inner lobe not pointed, outer lobe small, angled, at more than 140° to inner lobe, tylus in lateral view minutely visible, anteroventral angle of bucculae little produced, although forming a right angle, lateral margin of head in front of eye with a clear tooth, eyes not pedunculate, rostrum reaching posterior margin of third abdominal segment; first antennal segment reaching apex of head, visible from above; pronotum, lateral margin concave, humeral angles gently raised, subtriangularly produced and only slightly horny, anterolateral angles with a small tooth, anterolateral margin clearly carinate, auricle of metasternal scent gland minute, prosternum with median channel, mesosternum with prominent carina, metasternum without carina and not channelled, abdominal sterna with a shallow median channel; fore tibia unexpanded.

**Male genitalia** Pygophore, posteroventral margin concave in middle, concavity forming posterior boundary of a median excavation with a central swollen process, posteroventral margin sinuate laterally with submarginal boss forming a cup-shaped depression with lateral margin, this depression forming a deep lateral excavation under dorsal marginal corner formed by posterior septum, margin without any ridged area, but sensory purpose served by marginal depressions and consequent processes and their irregular setae; paramere apex thin, flattened laterally, round dorsally, dorsoposterior external apical margin of head of paramere with narrow stripe of ridged area continuous on a thumb-like process, basal thumb minute with few setae, stem of paramere equally wide as apex; aedeagus, vesica small tubular with long sclerotised vesical appendages, conjunctival appendages, dorsal pair small membranous or semi-sclerotised, ventral pair moderately large, semi-sclerotised, mesal membranous appendage trilobed, median lobe further divided, bilobed, lateral lobes shorter than median lobe's branches.

**Female genitalia** First valvifer broadly triangular, posterior inner angle rounded, inner margin straight, posterior margin slightly sinuate, a little swollen; paratergite 9 long, apex swollen and densely spinose, inner margin a little produced

medially, second valvifer swollen and densely spinose; spermatheca (Fig. 14) proximal part of duct (nearest to opening) gently bulbous, both pump flanges present, bulb small with two simple and small unbranched tubules, duct outside spermathecal bag, joining bulb fine.

*Type species Ameridalpa jamila* gen. et sp. n.

*Comments:* Externally the new genus (as well as the new species on which the genus is based) resembles several species of *Dalpada sensu lato* and also *Dalpada sensu stricto* (based on *D. aspersa* AMYOT et SERVILE), but from both concepts, it is differentiated by the shape of the male paramere (cf. fig. 29, GHAURI, 1977, and fig. 9), small auricle of metasternal scent gland and somewhat shining surface of the body in spite of it being punctate. So far as is known, this genus is confined to south India.

### *Ameridalpa jamila* sp. n. (Figs. 1–15)

*Colour* Ground colour yellow, partly pinkish, with black punctures, scutellum most conspicuous, basal angles and apex (apart from a few shallow punctures) brightly yellow, disc black, connexivum black, each segment with a middle yellow fascia dividing it into three equal areas, antennae dark except for sub-basal ring on third and basal half of fourth segment yellow, tibiae with wide yellow annulation, ventral surface of body, middle area mostly yellow, lateral dark with dark punctures, auricle of scent gland yellow, membrane brown, veins black.

*Size* ♂ (♀): Length 14–15 (16–17) mm; 7 (8) mm width across humeral angles.

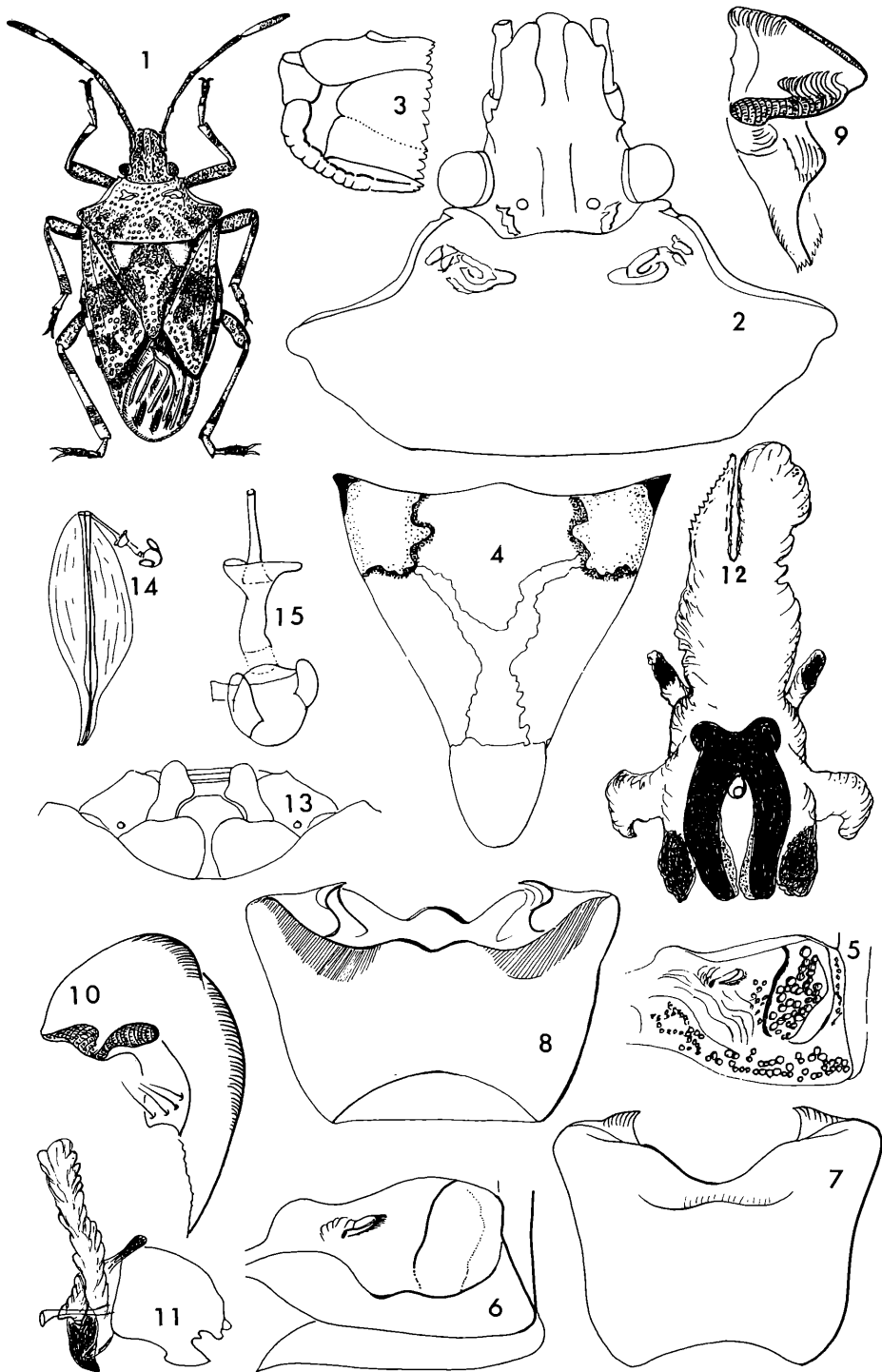
*Structure* Marginal tooth in front of eyes reduced; pronotal lateral margin deeply concave, anterolateral angle with small tooth, humeral angles extended beyond bases of elytra; scent gland auricle width to remaining width of metasternum 1/3 (♂ & ♀), ratio of II & III antennal segments 1/1.50 (♂) and 1/1.34 (♀), rostrum reaching posterior margins of third abdominal segment.

*Male genitalia* Pygophore, marginal concavity shallow (Fig. 7) with well developed submarginal boss (Fig. 8), dorsal excavation as in fig. 8, paramere, usual or basal thumb small, substituted by the well developed thumb-like process covered with ridges and at right angle to lateral margins (Figs. 9 + 10), head of paramere rounded; aedeagus, vesica small tubular with long sclerotised vesical appendages, conjunctival appendages, dorsal appendages small, membranous, ventral appendages moderately large, semi-sclerotised, mesal membranous appendages trilobate, median lobe further bilobed, lateral lobes slightly shorter than median lobe's branches (Figs. 11 + 12).

*Female genitalia* As described in generic definition. See figs. 13–15.

*Material examined* Holotype ♂, South India, B. M. 1930-539 (T. V. CAMPBELL). Paratypes. 1 ♂, 1 ♀, same data as holotype, 1 ♀ det. *D. pilicornis*, Nilgiri Hills, otherwise same data as holotype; Lovedale, 7,200 ft., Nilgiri Hills, S. India (T. V. CAMPBELL), Ex. coll. E. A. BUTLER, B. M. 1926-171, 1 ♂, 1 ♀; Kotagiri, 1892 (92-3) (ATKINSON coll.), 3 ♀♀, one det. as *pilicornis* STAL (which might stand for all 3 ♀♀). In BMNH.

*Comments* The new species has been confused, in the past, with *D. pilicornis* STAL which forms the basis of a different genus in the following pages. Thanks to Dr. Per Inge PERSSON, of Naturhistoriska Riksmuseum, Stockholm, I was able to study the holotype of *D. pilicornis* which, although looking like the new species superficially, is in fact easily distinguished. The new species, unlike *D. pilicornis*, has much broader basal yellow impunctate scutellar spots, each as wide as its length



(in *D. pilicornis* length of each spot twice its own width), well developed lateral marginal carina of pronotum, male and female genitalia (cf. Figs. 7–15 & 43–45, 52–58).

***Ameridalpa nikhata* sp. n.** (Figs. 16–24)

**Colour** Similar to *A. jamila* sp. n. except for narrower luteous spot at basal angle of scutellum, length of each spot almost twice its width.

**Size** Length 14 mm; width 7 mm across humeral angles.

**Structure** Marginal tooth in front of eye very much reduced; lateral margin of pronotum deeply concave, tooth at anterolateral angle very much reduced, humeral angle a little horny, extended beyond bases of elytra; width of scent gland auricle as to width of metasternum 1 3.53; ratio of II & III antennal segments 1 1.26; rostrum reaching posterior margin of 3rd abdominal segment.

**Male genitalia** Pygophore, marginal concavity very deep, dorsal excavation deeper than in previous species (Fig. 21), submarginal boss small (Fig. 20); paramere, basal thumb much reduced, apical thumb well developed but smaller than that of *A. jamila* and located subparallel to lateral margin (Fig. 22); head of paramere not rounded, almost transverse; aedeagus, vesica small tubular with large sclerotised appendages, conjunctival appendages – dorsal pair very small, membranous or only weakly sclerotised, ventral pair moderately large, semi-sclerotised, median appendage membranous, trilobate, middle lobe deeply divided, each finger much larger and longer than lateral lobe (Fig. 23).

**Female genitalia** Female so far unknown.

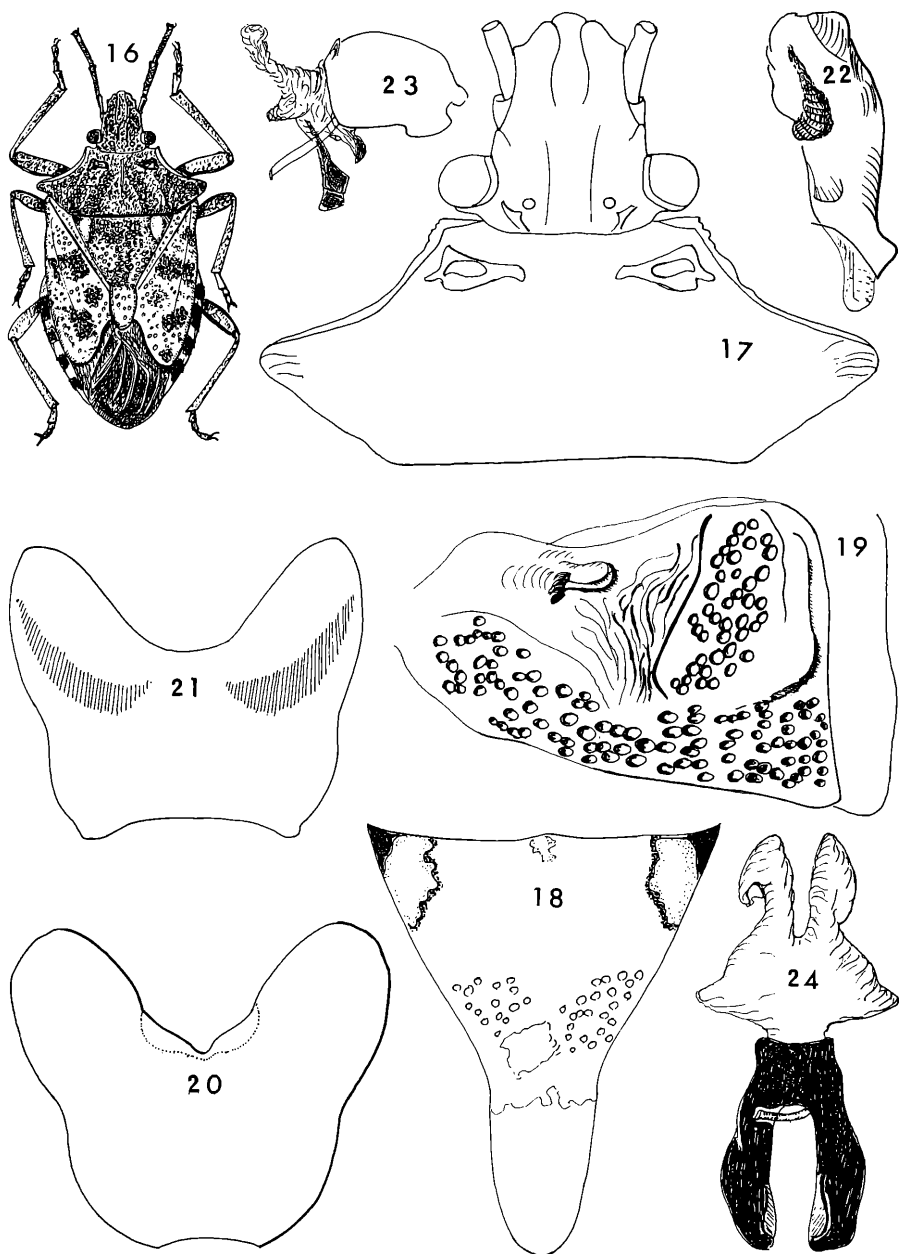
**Material examined** Holotype ♂, Nilgiri (South India) (HAMPSON), DIST. coll. 1911-383; labelled as *pilicornis*. This is the ♂ mixed with true *D. pilicornis* STÅL recorded by DISTANT (F. B. I. 1902 I, p. 114), from Nilgiri Hills (HAMPSON). In BMNH.

**Comments** *A. nikhata* differs from *A. jamila* by narrower luteous basal spots of scutellum, much deeper margin of pygophore, smaller apical thumb of paramere and its sub-parallel location to lateral margins and almost transverse head of paramere. From *D. pilicornis* STÅL, this new species can be readily separated by the carina to anterolateral margins of its pronotum, these in *D. pilicornis* are toothed all along their corresponding length.

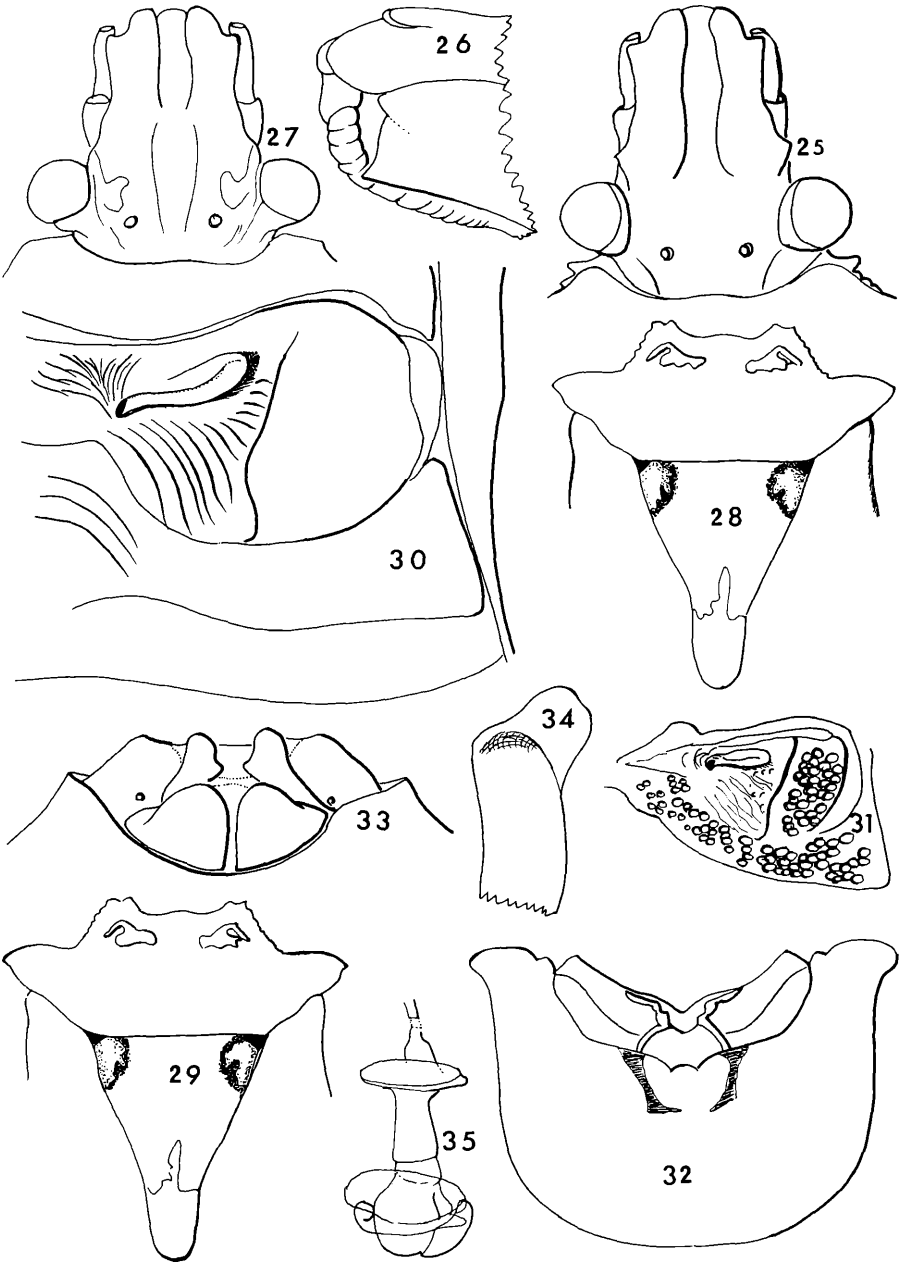
***Meridalpa* gen. n.**

Body moderately elongate, surface a little shining, quite closely punctate, punctures black, colour of surface in between punctures yellow to smoky yellow, basal angles of scutellum with large to small impunctate luteous spot, dorsal surface of body with dull brown, obliquely angled streaks, similar to general colour of *Halys* species; not rugose; apex of head similar to that of *Dalpada sensu stricto*, juga almost in line with tylus, jugum apex sinuate, inner lobe round to subacute, outer lobe small, sharply angled or a little rounded, at 110°–140° degree to inner lobe, tylus in lateral view minutely visible anteroventral angle of bucculae a little produced, although

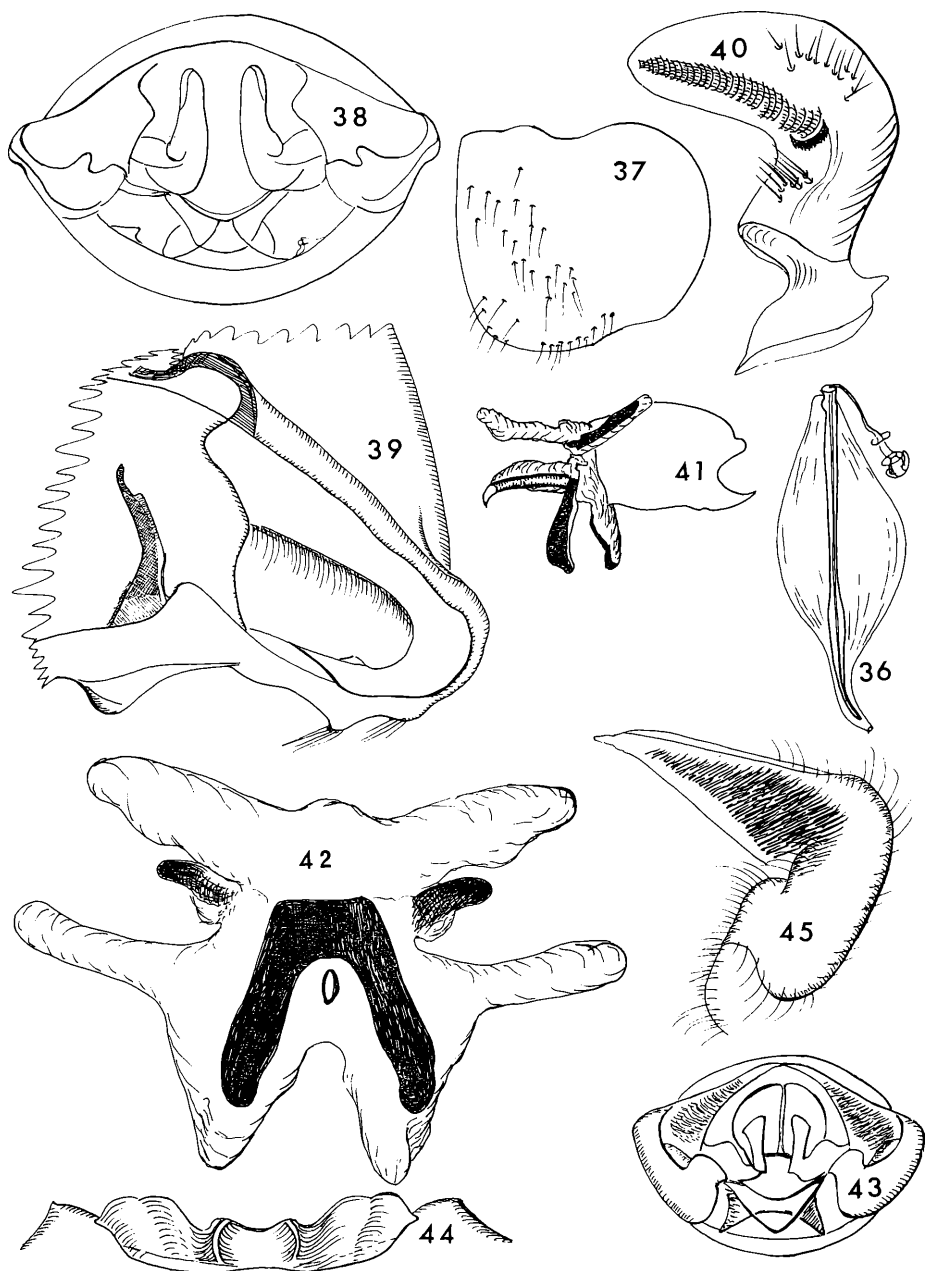
Figs. 1–15. *Ameridalpa jamila* sp. n. 1 dorsal view of ♂ holotype – 2: head and pronotum of same, enlarged – 3: lateral view of tip of head of same – 4: scutellum of same, semi-diagrammatic – 5: metasternum of ♂ paratype – 6: metasternum of ♀ paratype, semi-diagrammatic – 7 ventral view of pygophore, ♂ holotype – 8: dorsal view of same – 9: paramere of ♂ holotype – 10: another view of same – 11 aedeagus of ♂ holotype, lateral view, basal plate not shown – 12: posterior view of same, left branch of median lobe not shown fully – 13: external plates of ♀ paratype – 14: spermatheca of ♀ paratype – 15: bulb of same.



Figs. 16–24. Holotype ♂ of *Ameridarpa nikhata* sp. n. 16: dorsal view — 17: head and pronotum, enlarged — 18: scutellum, semi-diagrammatic — 19: metasternum — 20: ventral view of pygophore — 21: dorsal view of same — 22: paramere — 23: aedeagus, lateral view, basal plate not shown — 24: posterior of same, only vesical and median conjunctival appendages shown.

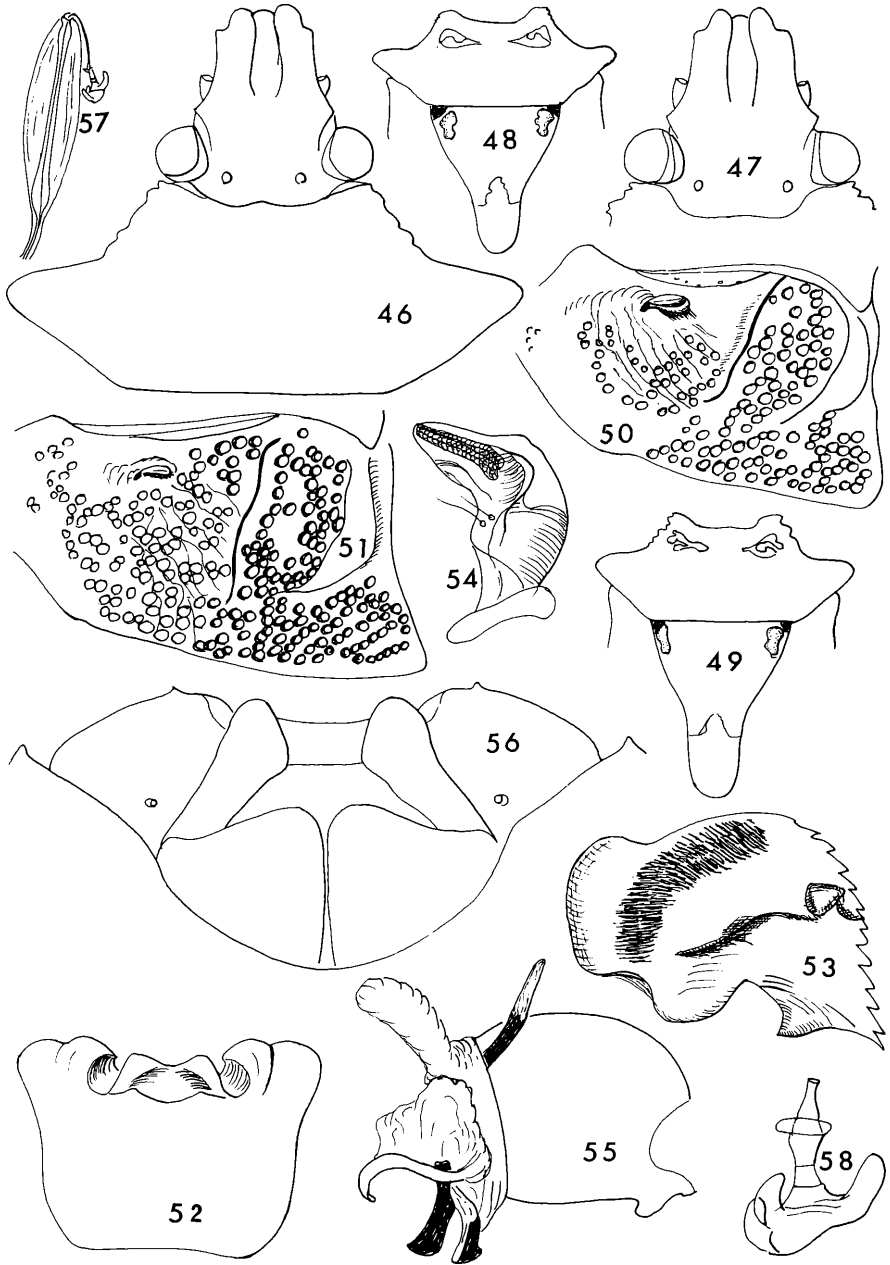


Figs. 25–42. *Meridalpa tauriformis* (DISTANT). 25: head of ♂, dorsal view, compared with lectotype ♂ – 26: apex of same, lateral view – 27: head of paralectotype ♀, dorsal view – 28: pronotum and scutellum, lectotype ♂ – 29: same of paralectotype ♀ – 30: metasternum of ♂ lectotype, semi-diagrammatic – 31: same of ♀, compared with paralectotype ♀ – 32: ventral view of pygophore, ♂ compared with lectotype ♂, internal apodemes on ventral floor – 33: external plates of ♀ paralectotype – 34:

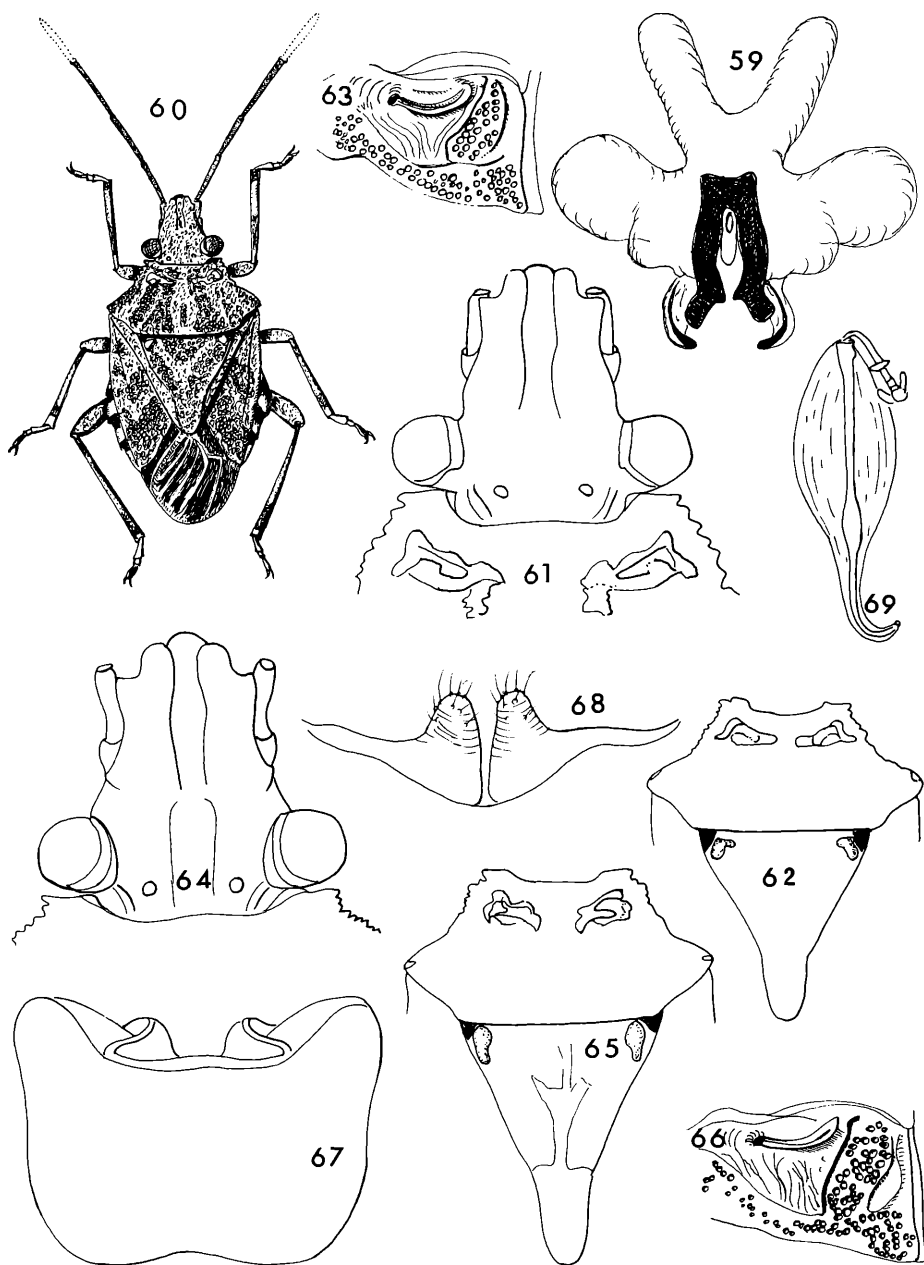


paratergite 9 of ♀ compared with lectotype ♀ — 35: spermathecal bulb of same — 36: spermatheca of same — 37: first valvifer of same — 38: posterior view of pygophore, ♂ compared with lectotype ♂ — 39: right hand corner of same, showing internal apodeme on ventral floor — 40: paramere of same — 41: aedeagus, lateral view, ♂ compared with lectotype ♂ — 42: posterior view of same.  
 Figs. 43–59. *Meridarpa pilicornis* (STAL). 43: pygophore, ♂ compared with lectotype ♂,

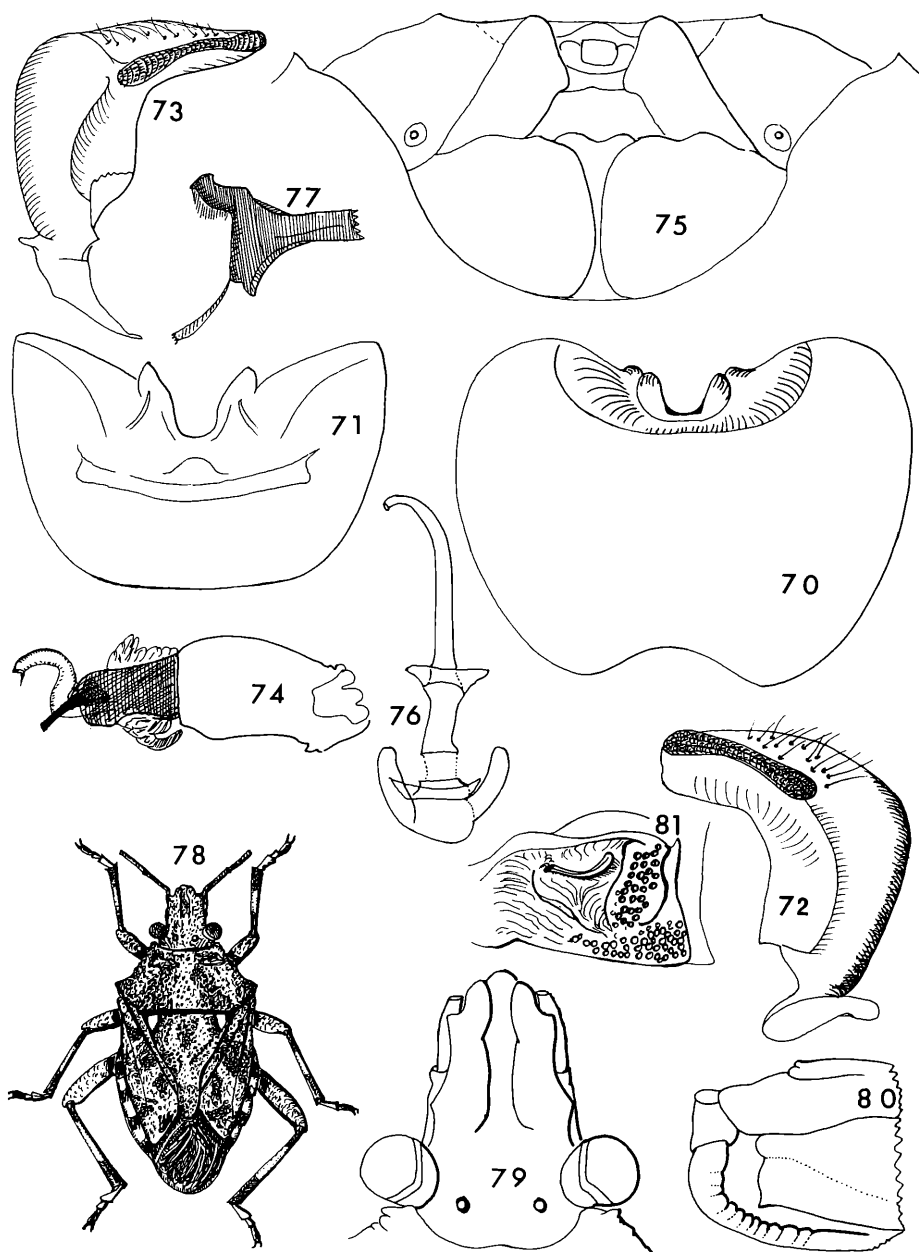




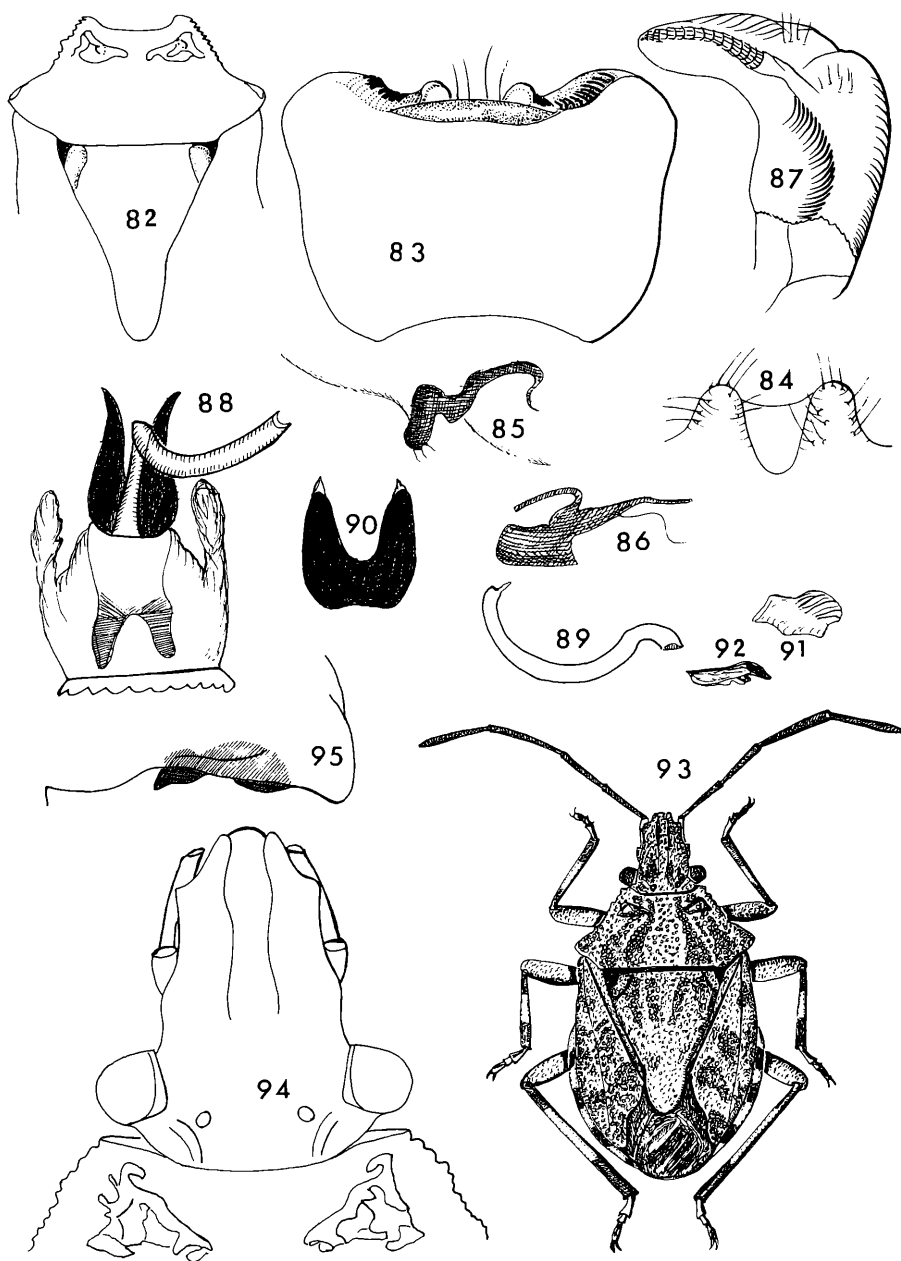
posterior view - 44: ventral view of pygophore of lectotype ♂, in situ - 45: right hand corner of pygophore, ♂ compared with lectotype ♂ - 46: head and pronotum of lectotype ♂ - 47: head, ♀ compared with lectotype ♂ - 48: pronotum and scutellum, ♂ compared with lectotype ♂ - 49: the same of a ♀, compared with lectotype ♂ - 50: metasternum of lectotype ♂ - 51: the same of a ♀, compared with lectotype ♂ - 52: ventral view of pygophore of lectotype ♂ - 53: left hand corner of pygophore



of ♂ compared with lectotype ♂, showing internal apodeme on ventral floor — 54: paramere of lectotype ♂ — 55: aedeagus of same, lateral view — 56: external plates of ♀, compared with lectotype ♂ — 57: spermatheca of same — 58: bulb of spermatheca of same — 59: posterior view of aedeagus of lectotype ♂.  
 Figs. 60–77 & Fig. 88. *Meridindia kaniza* sp. n. 60: dorsal view of holotype ♂ — 61: head and part pronotum of same, enlarged — 62: pronotum and scutellum of same,

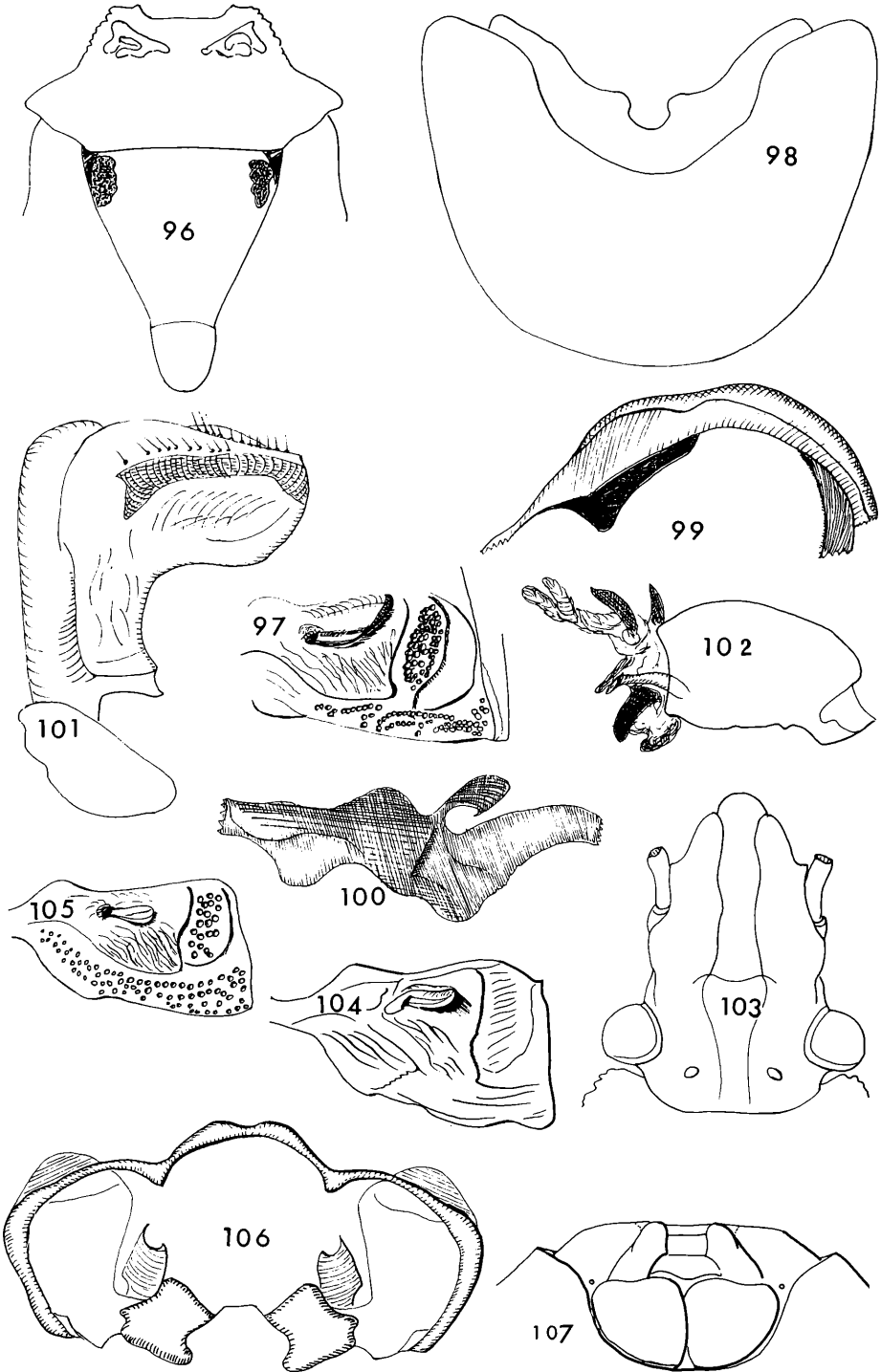


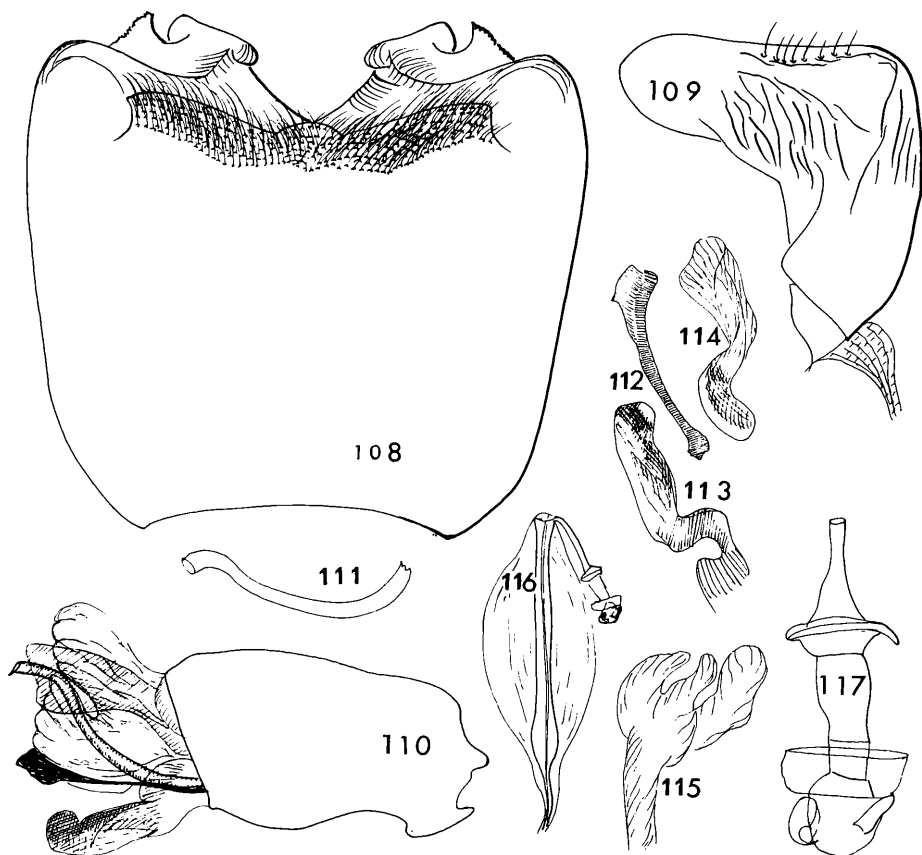
semi-diagrammatic — 63: metasternum of same — 64: head and part of pronotum of ♀ paratype — 65: pronotum and scutellum of same, semi-diagrammatic — 66: metasternum of same — 67: pygophore of holotype ♂, ventral view — 68: dorso-median marginal appendages of same — 69: spermatheca of paratype ♀ — 70: pygophore of ♂ paratype, different view from fig. 67 — 71: pygophore of holotype ♂, different view from figs. 67 & 70 — 72: paramere of ♂ holotype — 73: same, different view — 74:



aedeagus of ♂ holotype, lateral view, basal plates not shown, 75: external plates of ♀ paratype — 76: bulb of spermatheca of same — 77 left hand side internal apodeme on ventral floor of pygophore, ♂ holotype — 88: apex of aedeagus, ventral view, median conjunctival appendages not shown.

Figs. 78–87, 89–92. Holotype ♂ of *Meridindia farhata* sp.n. 78 dorsal view — 79: head and part of pronotum, enlarged — 80: apex of same, lateral view — 81 meta-





sternum — 82: pronotum and scutellum, semi-diagrammatic — 83: pygophore, ventral view — 84: dorsomedian marginal appendages of same — 85: left hand side internal apodeme on floor of same — 86: another view of same — 87 paramere — 89: vesica, lateral view — 90: vesical appendage — 91: dorsal conjunctival appendage — 92: ventral conjunctival appendage.

Figs. 93–102. Holotype ♂ of *Meridindia salmana* sp. n. 93: dorsal view — 94: head and part of pronotum, enlarged — 95: dorso-submedian marginal appendages of pygophore — 96: pronotum and scutellum, semi-diagrammatic — 97 metasternum — 98: pygophore, ventral view — 99: dorsomedian marginal appendage, in different view from that of 95 — 100: ventral apodeme on floor of pygophore — 101 paramere — 102: aedeagus, lateral view, basal plate not shown.

Figs. 103–117 *Eupaleopada concinna* (WESTWOOD). 103: head and part of pronotum, ♂ compared with lectotype ♀ — 104: metasternum of same, semi-diagrammatic — 105: metasternum of ♀, compared with lectotype ♀ — 106: dorsal view of apex of pygophore — 107 external plates of ♀ compared with lectotype ♀ — 108: ventral view of pygophore — 109: paramere — 110: aedeagus, lateral view, basal plate not shown — 111: vesica — 112: vesical appendages — 113: ventral conjunctival appendage — 114: dorsal conjunctival appendage — 115: median conjunctival appendage — 116: spermatheca — 117: spermathecal bulb.

forming a sharp right angle, tooth in front of eye on lateral margin of head small, eyes subpedunculate in relation to condition in other genera, rostrum reaching posterior margin of third abdominal segment; 1st antennal segment reaching apex of head, partly visible from above; pronotum, lateral margin not clearly carinate as in *Ameridarpa*, strongly concave as a result of humeral angles being triangularly laterally produced and ascending, but not horny, extended very much beyond basis of elytra, anterolateral angle with small tooth followed by few similar teeth; auricle of scent gland small to minute, width less than or several times less than width of metasternum, prosternum with median channel, mesosternum with median carina, metasternum smooth, i. e. without channel or carina, abdominal sterna with shallow median depression; foretibia not expanded.

**Male genitalia** Pygophore, extreme ventroposterior margin multisinuate, convex points with short brushes of setae, fringe of stiff setae absent, middle ventroposterior margin with a shallow channel delimited by curved carinae, anterior basis of which supported internally by narrow apodemes, lateral to this channel a shallow depression on both sides, dorsal margin without ridged sensitive appendages, median area with few setae (*tauriformis*) or laterally with a thick growth of thick setae (*pilicornis*), septal excavations not very deep; paramere „L“ or beak-shaped with short and wide stem basal „thumb“ reduced, head with elongate ridged area with internal or external small swelling; aedeagus, vesica thin tubular, moderately long, gently curved, with long strongly sclerotised appendages, conjunctival appendages, dorsal pair thin, long, sclerotised, ventral pair thin or broad sclerotised or semi-sclerotised, mesal membranous trilobate with central lobe further bifurcate.

**Female genitalia** External plates, first valvifer slightly swollen, triangular with posteromesal angles rounded, posterior margin slightly concave, paratergites 9 short, broad with inner margin proximally produced. Spermatheca, proximal part of duct (nearest to opening) not bulbous, narrow to slightly bulbous, (similar to *Paranevisanus* DISTANT; vide GHAURI, 1975), both pump flanges present, bulb small with few and simple tubules, duct outside spermathecal bag, joining bulb fine.

**Type species** *Dalpada tauriformis* DISTANT (1918).

**Comments** Amongst the South Indian genera of *Dalpada* complex, this new genus is easily distinguished by its triangularly raised humeral angles of pronotum; from the genus *Ameridarpa*, to which *Meridarpa* resembles in its shorter auricle of scent gland and general shape and colour, it differs by its not so shining surface, less regularly carinate lateral margin of pronotum and the shape of paramere. The two species contained in this genus are not closely related, see shape of pygophore.

### ***Meridarpa tauriformis* (DISTANT) comb. n. (Figs. 25–42)**

*Dalpada tauriformis* DISTANT (1918)

**Colour** Well described by DISTANT as follows: Head, pronotum and scutellum ochraceous, with dense, coarse, black punctures; a small spot at inner margin of each eye, narrow anterior and lateral margins and two transverse cicatrices on anterior area of pronotum, ochraceous or reddish-ochraceous; a large clear levigate spot at each anterior angle of the scutellum bright, shining ochraceous, only slightly longer than wide, and the apical area of the scutellum pale stramineous with sparse black punctures; corium coarsely punctate, excluding the basal and costal areas, which are distinctly suffused with ochraceous, more or less purplish-black; connexivum ochraceous, with large black spots at the segmental incisures; membrane piceous, its apical margin ochraceous; body beneath and the femora ochraceous, coarsely

blackly punctate, tibiae and tarsi ochraceous, the bases of the first and the apices of the latter more or less piceous; antennae brownish-ochraceous, the basal areas of the joints distinctly much paler; the pale pronotal cicatrices with interior black punctures; basal impunctate luteous spot of scutellum almost equilateral triangle, not elongate.

**Size** Length 16 mm, width at humeral angles 8 mm.

**Structure** Head apex at juga not much narrower than in front of eyes, marginal tooth in front of eye small, lateral margin of pronotum with 2–3 small teeth near anterior angle, marginal carina visible but ill-defined (cf. with *Ameridarpa* spp.), humeral angle in form of triangle raised; width of auricle of scent gland to remaining width of metasternum 1 1.35 (♂) and 1 1.7 (♀); ratio of II & III antennal segments 1 1.12 (♂) and 1 1.16 (♀), rostrum reaching hind margin of third abdominal segment. Auricle of scent gland in ♂ larger than in ♀.

**Male genitalia** Pygophore without thick fringe of stiff setae, only short brush at cones on ventral margins and a small scattering at middle of dorsal margin, paramere as in fig. 40, with a small round swelling at lower end of ridged fascia; vesica narrow, gently sinuate tube, vesical appendages long and sclerotised, conjunctival appendages – dorsal pair thin, long and sclerotised, ventral broad, semi-sclerotised, median membranous, lateral lobes as well as middle lobes thin.

**Female genitalia** (Figs. 33–37) First valvifer, posterior margin slightly concave, paratergite 9 medially produced, spermathecal bulb with one very small and one moderately sized tubule; duct towards opening narrow, duct outside bag fine.

**Material examined** Holotype ♂ of *Dalpada tauriformis* DISTANT, South India, Kodai Kanal (CAMPBELL), 14, ex. S. India, E. A. BUTLER, 1915-60 collection, Brit. Mus. type No. 788, with a red circular label, here designated as Lectotype; one ♀ det. *D. tauriformis*, South India, Kodai Kanal, 5,000 ft. (T. V. CAMPBELL), ex S. India, T. V. CAMPBELL coll. B. M. 1930-399, is here designated as paralectotype. S. India, Madura, Shambaganur, 1921-146, 2 ♂♂, 1 ♀. S. India, Madura (P. S. NATHAN), Brit. Mus. 1931-450, 1 ♂. In BMNH. English India (E. C. MOULT), *Dalpada* 12, 1 ♂; in Mus. Leiden. Indes anglaises, Shambaganur, 1929-30 (R. P. MANUEL), 1 ♂ 4 ♀♀; South India, Kodai Kanal, Pulney Hills (6,500 ft.), XI-1953 (P. S. NATHAN), 1 ♂, in R.I.S.N.B.

### ***Meridarpa pilicornis* (STÅL) comb. n. (Figs. 43–59)**

*Dalpada pilicornis* STÅL (1876)

**Colour:** Stramineous; head, pronotum, corium and sternum darkly punctate, the punctures brassy-black, an indistinct median line and the apices of the pronotal angles less densely punctate; pronotal angles nodulose, brassy-black, and with a distinct furrow inwardly; scutellum darkest on basal area, the apical area sparsely punctate, and with a somewhat large elongate levigate ochraceous spot at each basal angle; length more than twice width; membrane fuliginous, the veins darker; connexivum alternately dark blackish-green and ochraceous; abdomen beneath reddish-ochraceous, the disk impunctate, the lateral areas somewhat thickly darkly punctate, the apical segmental angles brassy-green; antennae fuscous, bases of fourth and fifth joints ochraceous.

**Size** ♂ (♀) 10 (15) mm length, 6 (7) mm width across humeral angles.

**Structure** Head at juga narrower than in front of eyes, marginal tooth of eye small but prominent, tylus not extended up to level of juga, lateral margin of pronotum with 2–3 small teeth near anterior angle, marginal carina ill-defined, humeral angles in form of raised triangles, width of auricle of scent gland to remaining width of



metasternum 1 4.63 (♂) and 1 5.54 (♀), i. e. auricle minute, in ♀ smaller than in ♂; ratio of antennal segments II & III, 1 1.6 (♂) and 1 1.2 (♀); rostrum reaching hind margin of third abdominal segment.

**Male genitalia** Pygophore without well developed ventral fringe of stiff setae, a small number of setae present, more on cones of ventral margin, a thick growth of thick setae laterally (Figs. 43, 45 + 53) and only very few on dorsal median margin, ventral margin with a depression, actual margin multisinuate, emarginate medially, lateral margin thick, dorsomedian margins not thick, opening of pygophore oval, somewhat dorsoventrally compressed (Fig. 43), ridged appendages absent, internal ventral apodemes not very well developed; paramere as in fig. 54, inverted „L“-shaped, stem thick, thumb not developed, head like a beak with elongate ridged area, size of head almost equal to stem; vesica short, gently curved, tubular, vesical appendages well developed, yoked and sclerotised; ventral conjunctival appendages long, sclerotised and partly membranous, dorsal conjunctival appendages long, narrow, partly sclerotised, median conjunctival appendages large, membranous, trilobate, median lobe further bilobate.

**Female genitalia** (Figs. 56–58): First valvifer triangular, slightly swollen, inner margin straight, posterior margin gently undulating, posterior inner angle rounded; paratergite 9 elongate, gently produced medially; spermathecal duct slightly swollen at proximal (nearest opening) end, both flanges present, bulb small, 3 tubules relatively longer, duct outside spermathecal bag fine.

**Material examined** Holotype ♂ of *Dalpada pilicornis* STÅL, South India, Neelgerris (GUÉRIN), with other labels, „Type“ white printed, „Types“ red printed, „*D. pilicornis* STÅL“ recently added label with biro-pen writing, „Riksmuseum Stockholm“ green printed, „497 72“ printed and hand written, here designated as Lectotype in Riksmuseum, Stockholm. Neel Gherries, 1 ♂ 1 ♀, *Dalpada pilicornis* STÅL, det. JENSEN-HAARUP, in Mus. Westerm. from Universitetets Zoologiske Museum, København. Nilgiri (HAMPSON) (DISTANT coll. 1911-383) 5 ♀♀ 1 ♂, det. *pilicornis* STÅL; South India, Coonor, 11.17 (Nov. 1917) (T. V CAMPBELL), B. M. 1930-599, 1 ♀, 1 ♂, 200 ? Nilgi., *Dalpada* sp. 1 ♂, other data same as other two specimens (1 ♂ 1 ♀). Utakamond, 1 ♀. In BMNH.

**Comments** *M. pilicornis* (STÅL) has been confused, in the past, with specimens which have now been described as *Ameridarpa jamila* sp. n. and *Ameridarpa nikhata* sp. n. (*vide supra*) because of its superficial resemblance to these species, especially in its colour and levigate markings of scutellum. Apart from its distinct genitalia, *M. pilicornis* differs from *A. jamila* by its smaller size, narrower levigate markings at outer basal angles of scutellum, which are similar to those of *A. nikhata* sp. n., but from both, *M. pilicornis* is easily distinguished by its much more developed humeral angles of pronotum, which are very much extended beyond the bases of hemelytra, and lack of well defined lateral marginal carina of pronotum. The auricle of scent gland is very small in all three species, *M. pilicornis*, *A. jamila* sp. n. and *A. nikhata* sp. n., but not so small in *M. tauriformis* (DISTANT). In some other characters, e. g. detailed shape of pygophore and paramere, the two species in the genus *Meridarpa* are not closely related and might represent two different potential genera, but for the present, they are accommodated in one genus.

### **Meridindia gen. n.**

Body moderately elongate, surface dull, quite closely punctate, punctures dark brown and black, surface colour smoky yellow, basal angles of scutellum with small impunctate yellow spot, dorsal body surface with dull brown obliquely angled streaks,

reminiscent of general colour of *Halys* species; not rugose; apex of head similar to that of *Dalpada sensu stricto*, length of juga slightly less or almost as long as tylus, jugum at apex sinuate, inner lobe subacute, outer lobe small, pointed, angled at more than  $140^\circ$  to inner lobe, tylus in lateral view minutely visible, anteroventral angle of bucculae little produced although forming a sharp right angle, tooth on lateral margin of head in front of eye very much reduced, eyes subpedunculate in relation to condition in other genera, rostrum extending beyond anterior margin of fourth abdominal segment; first antennal segment reaching apex of head, visible from above; pronotum, lateral margins concave, humeral angles only slightly horny, not raised, not extended beyond bases of elytra, anterolateral angle with small tooth, anterolateral margin toothed, not clearly carinate; auricle of scent gland wide, wider than remaining width of metasternum, prosternum with median channel, mesosternum with prominent carina, middle of metasternum without carina, smooth or with a shallow median depression; abdominal sterna with a shallow median channel; fore tibia unexpanded.

**Male genitalia** Pygophore, posteroventral margin with a deep median emargination flanked by a posteroventral swelling, in some species fringed with stiff setae, sublaterally posterolateral margin weakly expanded and gently bisinuate (Figs. 67 + 83), dorsoposterior margin strongly sclerotised sublaterally or provided with a strong dental appendage or medial with a pair of less sclerotised appendages, excavation formed by posterior septum dorsal or dorso-posterior; margin without prominent ridged areas; paramere „L“-shaped, flattened laterally, stem wide; thumb small, external surface of head with a long „swelling“ with ridged rounded surface; aedeagus, vesica tubular small to moderately long, apex curved, with short or moderately long heavily sclerotised spine-like „yoked“ appendages, conjunctival appendages, dorsal pair long and sclerotised, or broad, large and semi-sclerotised, ventral pair thin or broad, semi-sclerotised, mesal membranous, trilobate, central lobe long or short and further bifurcate, lateral lobes large or narrow.

**Female genitalia** (Figs. 69, 75 + 76): External plates, first valvifer broadly triangular, posterior inner angle rounded, inner margin slightly convex, posterior margin gently multisinuate, disc flattish, only slightly swollen; paratergite 9, long, evenly wide, inner margin straight, not produced medially, apex usually swollen, second valvifer swollen, spinose; spermatheca, duct slightly bulbous proximally (nearest opening), both bulb-flanges present, bulb small, simple tubules, relatively longer, duct outside spermathecal bag not very fine.

**Type species** *Meridindia kaniza* gen. et sp. n.

**Comments** This is almost a phenotype of the genus *Tipulparra*, but the different male genitalia of these genera show that the similarities between them are only superficial. From *Meridarpa*, the other South Indian genus *Meridindia* mainly differs by its wide (long) auricle of scent gland and by the shorter humeral angles of its pronotum. Some of the specimens which now represent new species in this genus have been identified in the past as *D. versicolor* (H. SCH.) or confused with *D. clavata* (FABRICIUS), the latter representing a quite different genus.

***Meridindia kaniza* sp. n.** (Figs. 60–77 + 88)

**Colour** Dull, brownish yellow with brown punctures, small, only half as wide as long, impunctate luteous basal spots of scutellum present but not reaching extreme corners, head, pronotum and also to some extent scutellum and corium with small patches of metallic green punctures, connexivum, anterior and posterior edges black, ventro-lateral broad, dark, fascia continued up to head, eyes brown, ocelli red, antennae

dark brown, 1st segment with obscure fuscous fascia, last rostral segment brown, 2nd and 3rd with median dark streak, front femora and apical half of middle and hind femora spotted with dark, tibiae light coloured annulation.

**Size** Small, length 13 mm (16 ♀♀); width at humeral angles 6 mm (7 ♀♀).

**Structure** Marginal tooth in front of eyes reduced; pronotal lateral margins of pronotum shallowly concave, anterolateral angle with small tooth, followed by, up to half limit of margin, with irregular teeth, remaining margin obscurely carinate, humeral angles not horny, only a little margined; width of auricle of scent gland to remaining width of metasternum 1 0.80 (♂) and 1 0.88 (♀); ratio of II & III antennal segments 1 1.13 (♂) and 1 1.27 (♀); rostrum reaching almost middle of fourth abdominal segment.

**Male genitalia** Pygophore, ventroposterior margin with a fringe of stiff setae, dorsal margin with a median pair of small appendages bearing short setae, viewed posteriorly ventral septum of pygophore with a deep emargination both sides of which supported by a pair of internal ridges (Fig. 77); paramere as shown in figure 72 + 73 with a long ridged swelling, setae few on apex or head; aedeagus, conjunctival appendages, dorsal pair small, wing-like, semi-sclerotised, ventral pair finger-like, semi-sclerotised, central membranous trilobate, middle lobe wide and large, lateral lobes very small, vesica tubular curved like a shallow ? mark, appendages yoked, small, sclerotised.

**Female genitalia** As in generic description. See Figs. 69, 75 + 76.

**Material examined** Holotype ♂, South India, Nadungayam, 200 ft., Malabar, 16–22. ix. 38 (B. M. — C. M. Expdn. to S. India Sept.–Oct., 1938), labelled as „*Dalpada clavata* or species close to“ Paratypes, 1 ♂ (head missing), 1 ♀, same data as holotype. In BMNH.

**Comments** The new species only superficially resembles *D. clavata* (FABRICIUS), which as *Cimex clavatus* FABRICIUS (1798) is preoccupied by *Cimex clavatus* REICH (1795) and wrongly synonymised with *Dalpada concinna* WESTWOOD (1837, described as *Halys*) by DISTANT (1902) and KIRKALDY (1909), but can be easily distinguished by the less developed humeral angles (these are well developed and horn-like in *D. clavatus* ♀ holotype) and absence of tooth in front of eye (this is well developed in *D. clavatus* ♀ holotype). *D. clavatus* (F.) is generically different from the new species.

***Meridindia farhata* sp. n. (Figs. 78–87, 89–92)**

**Colour** Similar to that of previous species, *M. kaniza* sp. n., except that luteous impunctate basal scutellar spots slightly longer.

**Size** Length 13 mm; width at humeral angles 6 mm.

**Structure** Head a little longer and narrower than in *M. kaniza*; teeth on anterolateral margin of pronotum different, apex of scutellum narrower; rostrum longer, reaching beyond anterior margin of fifth abdominal segment. Width of auricle of scent gland to remaining width of metasternum 1 1.0, ratio of II & III antennal segments 1 1.20.

**Male genitalia** In corresponding view, paramere head viewed laterally narrower (cf. Figs. 72 + 87). Pygophore margin with a row of stiff setae, in posterior view median septum with a shallower emargination (much deeper in *M. kaniza*, cf. Figs. 67 + 83), dorsomedian marginal appendages broader and ventral internal ridges smaller than in *M. kaniza* (cf. Figs. 77 + 85); aedeagus similar to that of *M. kaniza* sp. n.

**Females** Unknown so far.

**Material examined** Holotype ♂, South India, Thekkadi, Periyar Dam, Trau-  
ancore, 6–10. v. 37 (B.M. — C.M. Expdn. to S. India, April–May, 1937). In BMNH.

**Comments** Similar to *M. kaniza* sp.n. but mainly differing in the shape of narrower head, narrower apex of head of paramere and slightly longer and narrower luteous impunctate scutellar spots. In the last mentioned character it also very closely resembles *pilicornis* (STAL) which has much more extended humeral corners and narrowly angled apical light fascia formed jointly by folded hemelytra and apex of scutellum.

***Meridindia salmana* sp.n. (Figs. 93–102)**

**Colour** Very similar to *M. kaniza* sp.n., i.e. much darker than that of *M. farhata*; basal scutellar spots punctate and therefore not conspicuous, patches of black punctures much more extensive on head, pronotum, scutellum and corium. Lateral black fascia on ventral surface of abdomen not as dark as in other two species.

**Size** Length 17 mm, width at humeral angles 8 mm; much larger than both previous species.

**Structure** Head elongate, narrowed at apex, outer lobe of juga minute, inner lobe much more sloping than in previous two species (cf. Figs. 94, 61, 64 + 79), marginal tooth in front of eye very much reduced, eyes less prominent than in *M. kaniza* and *M. farhata*. Teeth on anterolateral margin of pronotum blunt; rostrum much longer, reaching posterior margin of fifth segment of abdomen; width of auricle of scent gland to remaining width of metasternum 1 : 0.80; ratios of II & III antennal segment 1 : 1.40.

**Male genitalia** Pygophore, ventroposterior margin with a small fringe of short ordinary setae, dorsal margin medially with very much reduced appendages replaced by sublaterally located strongly sclerotised dental appendages, similarly ventral septum extended sublaterally with a central emargination and only thin internal ridges to support it; paramere with very wide apex of its head and broad swelling bearing ridges (Fig. 101); aedeagus, conjunctival appendages, dorsal pair longish, sclerotised, ventral pair broad, semi-sclerotised, median membranous trilobate, lateral lobes narrow, finger-like, middle lobe large, apically bifurcate (Fig. 102), vesical appendages small sclerotised, fully joined, vesica small, tubular curved but not shaped like a ? mark.

**Females** Unknown, so far.

**Material examined** Holotype ♂, South India, Nilgiris (HAMPSON) (DISTANT coll. 1911–383), labelled as „*versicolor* H. Sch.” In BMNH.

**Comments** DISTANT (1902) listed this specimen under *Dalpada versicolor* (H. SCH.) which was originally described from Java. The other specimen determined by DALLAS (1851) and listed by DISTANT (1902) under *D. versicolor* (H. SCH.) originated from North India and belongs to a different genus *Cahara* GHOURI (1978) and was described as *C. chaubattia* GHOURI (1978). *M. salmana* sp.n. differs from the previous two species by its elongate and narrow head, less prominent eyes, longer rostrum, broad apex of paramere, dental appendages on dorsal margin of pygophore, shape of aedeagus which is a curved tube and not like a ? mark. By these and other characters included in its description and figures, the new species is more than specifically different from *M. kaniza* sp.n. and *M. farhata* sp.n. and could be described at least in a distinct subgenus, provided more species are found, in the future, to go along with it. Once more, the importance of revision of earlier

collections, based on detailed examination of the dissected parts of genitalia has become manifest.

### **Eupaleopada gen. n.**

Body moderately elongate, surface dull, closely punctate, punctures brown, surface colour smoky yellow, basal angles and apex of scutellum paler but sparsely punctate, dorsal surface of body with dull brown obliquely angled streaks, reminiscent of general colour of *Halys* species, not rugose; apex of head narrowed, tylus much more extended than juga (cf. Figs. 103 + 94) and visible in lateral view, with a sharp cross-ridge at base, outer lobe of juga in form of a small tooth, inner lobe gently sinuating at an angle of  $\pm 145^\circ$  to first lobe, anteroventral angle of bucculae angulate, lateral margin of head in front of eye without tooth, eyes prominent but not pedunculate, rostrum reaching posterior margin of fourth abdominal segment or slightly beyond; 1st antennal segment not reaching apex of head, visible from above; pronotum, lateral margin concave, anterior half toothed, not carinate, humeral angles horny, raised laterally as short blunt horns, extended slightly beyond bases of elytra; auricle of scent gland moderate in size, less in width than remaining width of metasternum, prosternum with median channel, mesosternum with prominent carina, surface of metasternum at middle smooth; abdominal sterna with a shallow median channel; fore tibia unexpanded.

**Male genitalia** Pygophore, posteroventral margin semi-circular with a thick fringe made up of several rows of stiff setae, posteroventral margin separated from posterodorsal margin by a shallow depression, latter with a median emargination flanked by a pair of elaborate processes bearing sensory hairs which in turn have a smaller lateral process, dorsal margin without a process or ridged area except a small fringe of short setae, lateral to median depression; paramere L-shaped, or like a bird head, simple, head as long as stem, „thumb“ small, ridged area practically absent, absence of ridged areas on dorsal margin of pygophore and on paramere compensated by elaborate sensory ventral processes; vesica long, tubular with spatulate sclerotised appendages, conjunctival appendages, dorsal pair long, spatulate, sclerotised, ventral pair longer than dorsal, spatulate, sclerotised, mesal membranous conjunctival appendage trilobate, median lobe round, each lateral lobe further bilobate.

**Female genitalia** External plates, first valvifers triangular, slightly swollen, their posterior margin gently sinuate, posteromesal corner rounded, paratergite 9 elongate with inner margin excavate and consequently slightly produced in middle. Spermatheca with tube slightly swollen at proximal (posterior) end; bulb small with two short tubules, both flanges present.

**Type species** *Halys concinna* WESTWOOD

**Comments** This is the only South Indian genus with horny humeral angles, so far. In general appearance, the new genus resembles other South Indian genera in several features, but its narrow apex of head is strikingly distinct from all others. By the shape of the auricle of scent gland, *Eupaleopada* seems to be more closely related to the genera *Meridarpa* and *Ameridarpa*, than to the genus *Meridindia*, but apart from their different genitalia, this new genus can be distinguished from both of them by the shape of its pronotum. The relatively longer head of *Eupaleopada* is reminiscent of the very long head of the genus *Halys*.

***Eupaleopada concinna* (WESTWOOD) resurrected species comb. n.** (Figs. 103–117)

*Halys concinna* WESTWOOD (1837)

Not *Halys concinna* WESTWOOD *sensu* DALLAS, 1851, who synonymised it with *Cimex clavatus* FABRICIUS

Not *Halys concinna* WESTWOOD *sensu* DISTANT, 1902, who synonymised it with *Dalpada clavata* (FABR.)

Not *Halys latipes* WESTWOOD *sensu* DISTANT, 1902

Not *Dalpada bulbifera* WALKER *sensu* DISTANT, 1902

Not *Dalpada consobrina* WALKER *sensu* DISTANT, 1902

Not *Dalpada concinna* (WESTWOOD) *sensu* KIRKALDY (1909), who synonymised *Cimex clavatus* FABRICIUS *sensu* STÅL (1868) and *sensu* DISTANT (1902), *Halys latipes* WESTWOOD, *Dalpada bulbifera* WALKER, and *Dalpada consobrina* WALKER with it.

**Colour** Pale yellowish smoky, humeral horn dark with their blunt dorsal surface, lateral margin of head, lines between juga and tylus, two short lines, one between eye and line of tylus and second behind eye black, base of membrane dark, membranous nerves smoky, connexivum anterior and posterior margins black, middle area of ventral surface of body pale yellow with few or no punctures, sublaterally with black markings, basal segments of rostrum paler, apical segment dark, I, II & III antennal segments dark with longitudinal yellow streaks, IV & V segments smoky with short basal yellow annulation, coxae of light colour, femora, tibiae and more so tarsi with black punctures, tibiae with alternate light and dark annulations, claws and spiracles black; other colour description as in generic definition.

**Size** ♂ (♀): Length, 17 (16) mm; width at humeral angles, 8 (7) mm.

**Structure** Head almost triangular because of its width across eyes and narrowed apex of extended tylus beyond juga, anterolateral margin of pronotum with more or less six larger and six smaller teeth; width of auricle of scent gland to remaining width of metasternum 1 1.44 in ♂ and 1 1.70 in ♀; ratio of II & III antennal segments 1 1.1 ♂ + ♀; other characters as in generic descriptions.

**Male genitalia** As described in generic definitions. For details see Figs. 106, 108–115.

**Female genitalia** As described in generic description. See Figs. 107, 116 + 117

**Material examined** Holotype ♀ with the following labels: „Cuna“ „*concinna* Hope“, „*Dalpada clavata* Fabr.“ „Type Hem.: NO. 96, *Halys concinna* Westwood, Hope Dept. Oxford“ „Type, Westw. (Hope) C. Hemipt. 1837, Part 1, page 23, Distant, P.Z.S., 1900, p. 807–825“, designated here as lectotype, in Hope Department, Oxford. S. India, Chikkaballapura (T.V.C.), ex. coll. E.A. BUTLER, B.M. 1926-171, 1 ♀, 1 ♂ compared with type, Dohnavur, 350', Tinnevely Dt., 30. ix. 38 (B.M. — C.M. Expdn. to S. India, Sept.–October, 1938), 1 ♀ 1 ♂, det. as *Dalpada clavata* F.; South India (T.V. CAMPBELL coll.) B.M. 1930-599, N.D. 513 (Nandidrug), 1 ♂, CB 1 ♂; S. India, Coorg, (Lt. Col. J.C. FRASER), B.M. 1926-465, Brit. Mus. 1939-205, 1 ♂. In BMNH. Ceylon (Sri Lanka), Panduloya, 1918-93, (R. H. F. RIPPON coll.), 1 ♀. In NMW Cardiff.

**Comments** DISTANT (1900 & 1902) listed *Halys concinna* WESTWOOD under *Dalpada clavata* (FABR.) and considered it as synonym of the latter. KIRKALDY (1909) used the name *Dalpada concinna* (WESTWOOD) for *D. clavata* (FABR.) because as *Cimex clavatus* FABRICIUS (1798) is preoccupied by *Cimex clavatus* REICH (1795), the next available name, in his opinion, was *Dalpada concinna* (WESTWOOD, 1837). The species listed under these two names, i. e. *D. clavata* (FABRICIUS) and *D. concinna* (WESTWOOD) are *Halys latipes* WESTWOOD, *Dalpada bulbifera* WALKER and *Dalpada consobrina* WALKER. I have studied the types of all these species and found that they are not synonyms, are not the same as either of them and neither these two are the same. Of course, externally they look very similar and caused the confusion. The question whether these similarities are the results of mimicry or convergence, remains yet unexplained. WESTWOOD used „Cuna“ at least twice, in his work (1837). It is most probable that by „Cuna“ he meant Cannanor or Coonor in South India.

*Eupaleopada concinna* (WESTWOOD) stands distinct both as a species on its own merit as well as in a separate genus whose distribution is in South India and Sri Lanka.

Key to south Indian genera of the *Dalpada* complex described in this paper and in the paper published earlier (GHAURI, 1980)

- 1 First antennal segment much shorter, clearly not reaching apex of head (Fig. 103). **Eupalopada gen. n.**
- First antennal segment not short, more or less reaching apex of head (Figs. 2, 17, 27, 61). 2
- 2 Pygophore with lateroventral angles produced into well developed processes (GHAURI, 1980, Fig. 9), vesica a fine long tube curved into a ? mark shape (GHAURI, 1980, Fig. 77). **Tipulparra GHAURI**
- Pygophore without lateroventral angles produced into processes; vesica much shorter (Figs. 11, 23, 55, 74, 88, 102, 110). 3
- 3 Humeral angles of pronotum triangularly raised and much more extended beyond bases of hemelytra. **Meridalpa gen. n.**
- Humeral angles of pronotum only slightly or not raised, nor extended beyond bases of hemelytra. 4
- 4 Lateral margin of pronotum clearly carinate (Figs. 2 + 17). **Ameridalpa gen. n.**
- Lateral margin of pronotum not clearly carinate, but more or less dentate (Figs. 61, 68, 65, 82, 94, 96). **Meridindia gen. n.**

Key to the species of the genus *Ameridalpa* gen. n.

Pygophore shallowly emarginate (Fig. 9), basal luteous, impunctate spots of scutellum as long as wide (Fig. 4). **A. jamila sp. n.**

Pygophore deeply emarginate (Fig. 28), basal luteous, impunctate spots of scutellum narrow, about twice longer than width. **A. nikhata sp. n.**

Key to the species of the genus *Meridalpa* gen. n.

Scent gland auricle small (Figs. 30 + 31), luteous spots at base of scutellum almost as wide as long (Figs. 28 + 29). **Meridalpa tauriformis** (DISTANT)

Scent gland auricle minute (Figs. 50 + 51), luteous spots at base of scutellum narrow (Figs. 48 + 49) almost twice as long as wide. **Meridalpa pilicornis** (STÅL)

Key to the species of the genus *Meridindia* gen. n.

1 Head elongate (Fig. 94), basal spots of scutellum punctate (Figs. 93 + 96), paramere head apex very wide (Fig. 101). **Meridindia salmana sp. n.**

— Head not exceptionally elongate (Figs. 61, 64, 79), basal spots of scutellum impunctate (Figs. 60 + 78), paramere head apex not very wide (Figs. 72 + 87). 2

2 Luteous, impunctate spots of scutellum base minute (Figs. 60, 62 + 65), head wider (Figs. 61 + 64). **M. kaniza sp. n.**

— Luteous, impunctate spots of scutellum base not minute (Figs. 78 + 82), head much less wide (Fig. 79). **M. farhata sp. n.**

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