

A CONTRIBUTION TOWARDS THE TAXONOMY OF THE
DELPHIACIDÆ.

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LIST OF GENERA.

1. *Achorotile* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 521; type *albosignata* (Dahlbom), Pl. VIII, f. 16.
2. *Aloha* Kirkaldy, 1904, Entom., XXXVII, 177; type *ipomoeæ* Kirk.; 1908, P. Haw. Ent. Soc., 1, Pl. IV, f. 9.
3. *Amblycotis* Stal, 1853, Ofv. Vet. Ak. Forh., 265; type *laticeps* Stal.
4. *Anectopia* Kirkaldy, 1907, H. S. P. A. Ent. Bull., 11, 143; type *mandane* Kirk., Pl. XI, f. 11-13, Pl. XIV, 4-6.
Aræopus Spinola, 1839, Rev. Zool.; type *crassicornis* (Fabricius) Syn. *Delphax*.
5. *Arcofacies* Muir, gen. nov.
6. *Asiraca* Latreille, 1801, Hist. Nat. Crust. Ins., 111, 259; type *clavicornis* (Fabricius).
Atropis Kirschbaum, 1868, Cicad. Wies. u. Frank., 10; type *latifrons* Kirsch—*lavifrons* Shlb. Syn. *Metropis* Fieb.
7. *Bakerella* Crawford, 1914, Pro. U. S. Nat. Mus., XLVI, 601; Pl. XLVII, f. D.
Bambusaria Melichar, 1914, Phil. J. Sci., IX, 3, D. 274; Pl. I, f. 6, a-b.; type *picta* Mel.—Syn. *Sogatopsis pratti* Muir.
8. *Bambusibatus* Muir, gen. nov.
9. *Belocera* Muir, 1913, Pro. Haw. Ent. Soc., II, 5, 239; type *sinensis* Muir., Pl. VI, f. 4, a.
Bergia Scott, 1881, E. M. M., XVIII, 155; type *nimbata* (Berg.) n. preoc. Syn. *Bergias*.
10. *Bergias* Kirkaldy, 1904, Entom., XXXVII, 279; nom. nov. for *Bergia*.
Bidis Walker, 1856, J. Lin. Soc. Lond., Zool., I, 88; type *notivena* Walker, Pl. IV, f. 2. Syn. *Ugyops*.
11. *Bostæra* Ball, 1902, Caa. Ent., XXXIV, 266; type *nasuta* Ball. Syn. *Cochise*.
12. *Calligypona* J. Sahlberg, 1871, Not. Sallsk. Faun. Fenn., XII, 408; type *albicollis* Sahlb.

13. *Canyra* Stal, 1862, Svensk. Vet. Ak. Hand., 3, No. 6, p. 7; type *placida* (Stal).
14. *Chloriona* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 519; type *unicolor* (H-S); Pl. VIII, f. 5.
15. *Chlorionidea* Low, 1885, Verh. Zool. Bot. Ges. Wien, XXXV, 356; type *flava* Low; Melichar, 1896, Cic. Mitt. Eur., Pl. IV, f. 23-25.
Cochise Kirkaldy, 1907, H. S. P. A. Ent. Bull. IV, 63; type *apacheanus* Kirk; Muir, 1913, P. Haw. Ent. Soc., II, 5; Pl. VI, f. 3, a. Syn. *Bostera* Ball.
Cona White, 1879, E. M. M., XV, 218; type *celata* White, n. pr. Syn. *Micromasoria*
Conicoda Matsumura, 1900, Ent. Nachr., XXVI, 258; type *gramina* Mats.—*brunnipennis* Sign. Syn. *Tropidocephala* (or a subgenus).
16. *Conomelus* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 520; type *limbata* (Fabricius), Pl. VIII, f. 10.
17. *Copicerus* Swartz, 1802, Kon. Vet. Nya. Hand, XXIII, 181; type *irroratus* Swartz; Pl. VI, f. 2, a-f; also Fowler, B. C. Amer., Hem.-Hom., I, Pl. XIII, f. 1, a, 2, a, Syn. *Holotus* Guerin.; *Jerala* Walker.
18. *Criomorphus* Curtis, 1833, Ent. Mag., I, 195; type *albomarginatus*. Curtis; Syn. *Ditropis* Kirsch; *Stiroma* Fieb.
19. *Delphacinus* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 520; type *nesomelas* (Boheman), Pl. VIII, f. 12.
Delphacissa (Subg. *Delphacodes* Fieb.), Kirkaldy, 1906, Can. Ent., XXXVIII, 155; type *uncinata* (Fieber).
Delphacodes (Subg. *Delphax-Liburnia*) Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 524; type *mulstanti* Fieber, Pl. VIII, f. 32.
Delphacodes Melicher, 1901, Wien. ent. Zeit., 55; type *lethierryi* (Rey); n. pre. Syn. *Pseudaraeopus*.
20. *Delphax* Fabricius, 1798, Ent. Syst. Suppl., 511; type *crassicornis* Fab. Syn. *Araeopus* Spin.
21. *Dichoneura* Lethierry, 1890, A. Soc. Ent. Fr. (6) X 151; type *simoni* Lethierry.
22. *Dicranotropis* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 521; type *hamata* (Boh), Pl. VIII, f. 17 Syn. *Phacalastor* Kirk.

23. *Dictyophorodelphax* Swezey, 1907, Pro. Haw. Ent. Soc., I, 104; type *mirabilis* Swezey. Fig. op. c. II, p. 2.
Dictropis Kirschbaum, 1868, Cicad. Wies. Frank. (nec. Fieber) part. Syn. *Jassidea* *crimorphus* and *Stiroma* Fieber. (Fieber used *Stiroma* in text and *Ditropis* on his plate and Kirschbaum followed the name on plate.)
Ectopiopterygodelphax Kirkaldy, 1906, H. S. P. A. Ent. Bull., I, 412; type *eximius* Kirk. Syn. *Tropidocephala*.
24. *Embolophora* Stal., 1853, Ofv. Vet. Ak. Forh., X, 265; type *monoceros* Stal.
25. *Eodelphax* Kirkaldy, 1901, Entom., XXXIV, 39; type *serendiba* Kirk. Syn. *Eudelphax* *setulosus* Mel.
26. *Eoerysa* Muir, 1913. Pro. Haw. Ent. Soc., II, 249; type *flavocapitata*, Muir.
27. *Epeurya* Matsumura, 1900, Ent. Nachr., 261; type *nawaii* Mats.
28. *Epibidis* Fowler, 1905, B. C. Amer., Hem.-Hom., I, 131; type *goodmani* Fowler, Pl. XIII, f. 3, a, b, 4-5.
29. *Eucanyra* Crawford, 1914, Pro. U. S. Nat. Mus., XLVI, 568; type *stigmata* Crawford, Pl. XLIV, f. G. N. R. S.
Eudelphax Melichar, 1903, Hom. Cey., 32 (Cixiidae); type *setulosus* Mel., Pl. I, f. 6; Syn. *Eodelphax* *serendiba* Kirk.
30. *Euidella* Puton, 1886, Cat. Hem. Pal., 72; type *basilinea* (Germ.) n.n. for *Euides*.
Euides Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 519; type *basilinea* (Germ). Fig of *speciosa* (Boh), Pl. VIII, f. 7. Syn. *Euidella*, n. pr.
Eueides Dallas, 1867, Zool. Rec., III, 560, Syn. *Euidella*.
31. *Eumetopina* Breddin, 1896, Deut. Ent. Zeit., 109; type *kruegeri* Bred.
32. *Eurybregma* Scott, 1875, E. M. M., XII, 92; type *nigrolineata* Scott (considered by some a syn. of *Criomorphus*).
33. *Eurya* Fieber, Verh. Zool. Bot. Ges. Wien, XVI, 520; type *lineata* (Perr), figure Melichar Cic. Mitt. Eur., Pl. IV, f. 31-35.
Gadora Walker, 1858, Cat. Hom. Suppl. 84; type *capensis* Walker. Syn. *Hapalomelus* *flavipes* Stal.
34. *Gelastodelphax* Kirkaldy, 1906, H. S. P. A. Ent. Bull. I, 411; type *histrionicus* Kirk.; 1907, op. c., III, Pl. XVII, f. 1-3, Pl. XVIII, f. 16.

- Geoneossus* Muir, 1913, P. Haw. Ent. Soc., II, 238; type *sacchari* Muir., Pl. VI, f. 5-6. Syn. *Pseudaraëopus* Kirk.
Goniolcium Föller, 1905, B. C. Amer. Het.-Hom., I, 132; type *granulosum* Fowler, Pl. XIII, f. 7-8. Syn. *Stobara* Stal.
Haedodelphax Kirkaldy, 1906, H. S. P. A. Ent. Bull., I, 410; type *pluto* Kirk.; 1907, op. c., III, Pl. XVII, F. 12. Syn. *Sardia* Mel.
 35. *Hapalomelus* Stal, 1853, Of. Vet. Ak. Forh., 265; type *flavipes* Stal. Syn. *Gadora* Walker.
 36. *Haplodelphax* Kirkaldy, 1907, H. S. P. A. Ent. Bull., III, 145; type *iuncicola* Kirkaldy, 1907, XII, f. 8-9.
Holotus (=Holatus) Guerin, 1856, de la Sagras Kist. Cuba, VII, and 1857, op. c., An. Artic., 429; type *thoracicus* Guerin. Syn. *Copicerus* Swartz.
 37. *Idiosemus* Berg, 1883, Ann. Soc. Argentine, XVI, 233; type *xiphias* (Berg).
 38. *Idiosystatus* Berg, 1883, Ann. Soc. Argen., XVI, 231; type *acutiuscula* (Spin.).
Ilburnia White, 1878, Pro. Zoo. Soc. Lond., 471; type *ignobilis* White (—*Ilburnia* Scudder. Nom. Zool., II, 160). Subgenus of *Liburnia*.
 39. *Jassidaus* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 521; type *moris* Fieber. Pl. VIII, f. 13. Syn. *Ditropis* Kbm. prt. *lugubris* (Sign).
Jerala Walker, 1858, List. Hom. Suppl., 85; type *singula* Walker (—*Jeralia* Scudder Nom. Zool. II, 163) Syn. *Copicerus* Swartz.
 40. *Kalpa* Distant, 1906, F. B. I. Rhyn., III, 474; type *aculeatu* Dist. Fig. 261.
 41. *Kelisa* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 519; type *guttula* (Germar); Pl. VIII, f. 4.
 42. *Kormus* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 520; type *artemisiæ*; Fieber, Pl. VIII, f. 8.
 43. *Laccocera* Van Duzee, 1897, Bull. Buff. Soc. Nat. Sci., V, 229 and 241; type *vittipennis* Van Duzee.
 44. *Lanaphora* Muir, gen. nov.
 45. *Leialoha* Kirkaldy, 1910, Faun. Haw. II (6), p. 579; type *naniicola* (Subgenus now erected to genus).

46. *Leimonodite* Kirkaldy, 1907, H. S. P. A. Ent. Bull., III, 133 (foot note); type *beckeri* (Fieber), Fig. Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, f. 17.
Lepticus Crawford, 1914, Pro. U. S. N. Mus., XLVI, 567. Erected on nymph.
 47. *Liburnia* Stal, 1866, Hem. Afr., IV, 179; type *pellucida* (Fab.) Syn. *Delphax* Auct. nec Fabricius; *Delphacodes* s. g. Fieber. *Delphacissa* s. g. Kirkaldy.
 48. *Liburniella* Crawford, 1914, Pro. U. S. Nat. Mus., XLVI, 585. Pls. XLV, f. T. XLVII, f. E.; XLIX f. N.
 49. *Livatis* Stal, 1859, Eugen. Resa. Ins. 274; type *annulipes* (Stal), Pl. IV, f. 3.
 50. *Macrotomella* Van Duzee, 1907, Bul. Buff. Soc. Nat. Sci., VIII, 44; type *caranata* Van Duzee
 51. *Malaxa* Melichar, 1914, Phil. Jour. Sci., IX, 3, D 275; Pl. III, f. 7.
 52. *Megamelanus* Ball, 1902, Can. Ent., XXXIV, 265; type *bicolor* Ball.
 53. *Megamelus* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, 519; type *notulus* (Germar). Pl. VIII f. 2.
 54. *Melanesia* Kirkaldy, 1907, H. S. P. A. Ent. Bull., III, 128; type *pacifica* Kirkaldy. Pl. XVII f. 13-14.
 55. *Mestus* Motschulsky, 1863, Bull. Soc. Nat. Mosc., XXXVI (3) III; type *morio* Motsch.
 56. *Metropis* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 521; type *mayri* Fieber, Pl. VIII, f. 14. Syn. *Atropis* Kirsch.
 57. *Micromasoria* Kirkaldy, 1904, Entom., XXXVII, 279; n.n. for *Cona*; type *celata* (White).
Nephropsia Costa, 1862, Ann. Mus. Zool. Nap., I, 76; type *elegans* (Costa). Syn. *Tropidocephala*.
 58. *Nesodryas* Kirkaldy, 1908, P. Haw. Ent. Soc., I, 203; type *freycinetiæ* Kirkaldy.
 59. *Nesopleias* Kirkaldy, 1910, Faun. Haw., II (6), 582; type *nimbata* Kirkaldy. Syn. *Aloha* in part, *Nesorestias* in part.
 60. *Nesorestias* Kirkaldy, 1908, P. Haw. Ent. Soc., I, 205; *filicicola* Kirkaldy.
 61. *Nesosydne* Kirkaldy, 1907, P. Haw. Ent. Soc., I, 161; type *koæ* Kirkaldy; fig. op. c. 1908, Pl. IV., f. 2.

62. *Nesothoe* Kirkaldy, 1908, P. Haw. Ent. Soc., I, 203; type *fletus* Kirkaldy.
63. *Nilaparvata* Distant, 1906, F. B. I. Rhyn., III, 473; type *greeni* Dist., f. 260.
Orchesma Melichar, 1903, Hom. Cey., 94; type *marginepunctata* Mill., Pl. III, f. 3, a-c. Syn. *Tropidocephala* (or Sub. gen.).
64. *Ostama* Walker, 1857, J. Lin. Sc. Lond., Zool., I, 151; type *juncta* Walker, Pl. 7, f. 4 a.
65. *Paranda* Melichar, 1903, Hom. Cey., 92; type *globiceps* Melichar, Pl. III, f. 10.
67. *Pentagramma* Van Duzee, 1898, Bull. Buff. Soc. Nat. Sci., V, 260; type *vittatifrons* (Uhl).
68. *Perigrinus* Kirkaldy, 1904, Entom. XXXVII, 175; type *maidis* (Ashmead); figure, Psyche, V, 1890, 323.
69. *Perimeccera* Muir, 1913, P. Haw. Ent. Soc., II, 250; type *giffardi* Muir, Pl. VI, f. 13.
70. *Perkinsiella* Kirkaldy, 1903, Entom., XXXVI, 179; type *saccharicida* Kirkaldy. Figure H. S. P. A. Ent. Bull., I, Pl. XXVI, f. 1-8, Pl. XXVII, f. 1-4; op. c., III, Pl. XI, f. 5-8
Phacalastor Kirkaldy, 1906, H. S. P. A. Ent. Bull., I, 408; type *Pseudomaidis* Kirk. Syn. *Dicronotropis* Fieber.
71. *Phyllodinus* Van Duzee, 1898, Bull. Buf. Soc. Nat. Sci., V, 240; type *nervatus* Van Duzee.
72. *Pissonotus* Van Duzee, 1898, Bul. Buff. Soc. Nat. Sci., V, 236; type *marginatus* Van Duzee.
73. *Platybrachys* Bierman, 1910, Notes Leyden Mus., XXXIII, 41; type *platypoda* Dammerman.
74. *Prokelisia* Osborn, 1905, Ohio. Nat., 373; type *setigera* Osborn, f. 1 a-f.
75. *Proterosydne* Kirkaldy, 1907, H. S. P. A. Ent., Bull. III, 130; type *arborea* Kirkaldy, Pl. XVIII, f. 11-12.
76. *Pseudaræopus* Kirkaldy, 1904, Entom., XXXVII, 177 (foot note); type *lethierryi* (Rey) n. n. *Delphacodes*. Melichar (nec Fieber) n. pr. Figure Melichar, 1896, Cic. Mitt. Eur., Pl. III, f. 46; Syn. *Geonessus* Muir.
77. *Punana* Muir, 1913, Pro. Haw. Ent. Soc., II, 249; type *brunnea* Muir.

78. *Pundaluoya* Kirkaldy, 1902, J. Bomb. Nat. Hist. Soc., XIV, 52; type *ernesti* (Kirby), figure Kirby, 1891, J. Linn. Soc. Lond. Zool., XXIV, Pl. V, f. 14; Melichar, 1903, Hom. Cey., Pl. II, f. 12 a-c.
79. *Purohita* Distant, 1906, F. B. I. Rhyn., III, 470; type *cervina* Distant, F. 257.
80. *Rhinotettix* Stal, 1853, Ofv. Vet. Ak. Forh., 1853, 265; type *fuscipennis* Stal.
81. *Saccharosydne* Kirkaldy, 1907, H. S. P. A. Ent. Bull., III, 139; type *saccharivora* (Westw), f. Westwood, 1833, A. M. N. H., 413, f. 54 a-c.
82. *Sardia* Melichar, 1903, Hom. Cey., 96; type *rostrata* Melichar, Pl. II, f. 4 a-b. Syn. *Halcodelphax* Kirk. *Smara* Distant, 1906, F. B. I. Rhyn., III, 478; type *festiva* Distant, F. 264, Syn. *Tropidocephala* Stal.
83. *Smicrotodelphax* Kirkaldy, 1906, H. S. P. A. Ent. Bull., I, 411; type *perkinsi* Kirkaldy; figure Kirkaldy, op. c., III, Pl. XVI, f. 14-16; Pl. XVIII, f. 14.
84. *Sogota* Distant, 1906, F. B. I. Rhyn., III, 471; type *dohertyi* Distant, f. 258.
85. *Sogatopsis* Muir, 1913, P. Haw. Ent. Soc. II, 247; type *pratti* Muir; Syn. *Bambusaria picta* Mel.
86. *Sparnia* Stal, 1862, Sve. Vet. Sk. Hand, III, p. 6.
87. *Stenocranus* Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 519; type *minutus* (Fab.), Pl. VIII, f. 3.
Stiroma Fieber, 1866, Verh. Zool. Bot. Ges. Wien, XVI, 521; type *mæsta* (Bohman). Syn. *Criomorphus* (Fieber's figure 18 is marked *Ditropis*).
88. *Stobæra* Stal, 1859, Berl. Ent. Zeit., III, 327; type *concinna* (Stal); Syn. *Goniolcium* Fowler.
89. *Toya* Distant, 1906, F. B. I. Rhyn., III, 472; type *attenuata* Distant, F. 259.
90. *Tropidocephala* Stal, 1853, Ofv. Vet. Ak. Forh., 266; type *flaviceps* Stal. Syns. *Conicoda* Mats.; *Ectopiopterygodelphax* Kirk.; *Nephropsis* Costa; *Orchesma* Mel.
91. *Ugyops* Guerin, 1834, Voy. Belanger, Zool., 477; type *percheronii* Guerin, Syn. *Hygyops*, *Hygiops*; *Bidis* Walker.
92. *Upachara* Distant, 1906, F. B. I. Rhyn., III, 469; type *stigma* Distant, f. 256.

93. *Zuleika* Distant, 1912, A. M. N. H. (8) IX 198; type *bengalensis* Dist.

TABLE OF GENERA.

1. Fulgorids, with movable spur on hind tibiæ.....*Delphacidæ*.
- 2 (3) Post-tibial spur subulate, with cross section either circular or angular, apex more or less acuminate, without teeth on side *Asiracinæ*.
- 3 (2) Post-tibial spur, cultrate or subcultrate or laminate, with or without teeth on hind edge.....*Delphacinæ*.

ASIRACINÆ.

- 1 (2) First femora and tibiæ foliaceous.....*Asiraca*
- 2 (1) First femora and tibiæ simple or only slightly flattened.
- 3 (6) Three mesonotal carinæ.
- 4 (5) Antennæ cylindrical or subcylindrical.....*Malaxa*
|
| *Ostama*
- 5 (4) Antennæ, with both joints foliaceous.....*Copicerus*
- 6 (3) More than three mesonotal carinæ.
- 7 (8) Four mesonotal carinæ.....*Idiosemus*.
- 8 (7) Five mesonotal carinæ.
- 9 (10) First joint of antennæ cylindrical, shorter than second, second joint ovate and considerably flattened; face with two median carinæ.....*Punana*.
- 10 (9) Both joints of antennæ cylindrical or subcylindrical.
- 11 (12) Antennæ with "articulo secundo supra sulcato".....*Canyra*.
- 12 (11) Second joint of antennæ not sulcate.
- 13 (22) Face with two medio-longitudinal carinæ.
- 14 (17) Face much longer than broad.
- 15 (16) Second joint of antennæ more than three times the length of first *Perimececera*.
- 16 (15) Second joint of antennæ less than three times the length of first *Ugyops*
- 17 (14) Face about as broad as long, second joint of antennæ about twice the length of first.
- 18 (19) Medio-longitudinal carinæ of face arcuate, nearer together at apex and base than at middle.....*Pentagramma*
- 19 (18) Medio-longitudinal carinæ of face "slightly widening from the lower margin of the frons to apex."

- 20 (21) Clypeus with median carina.....*Bergias*.
- 21 (20) Clypeus without median carina.....*Idiosystatus*.
- 22 (13) Face with one medio-longitudinal carina, furcate or simple.
- 23 (24) First joint of antennæ less than half the length of second (second joint slightly flattened).....*Melanesia*.
- 24 (23) Joints of antennæ subequal or first, but slightly shorter than second.
- 25 (26) Medio-longitudinal carina of face simple.....*Eucanyra*.
- 26 (25) Medio-longitudinal carina of face furcate.
- 27 (28) First joint of antennæ considerably shorter than second *Ugyops*.
- 28 (27) First joint of antennæ but slightly shorter than second *Epibidis*.

DELPILACINÆ.

- Post-tibial spur cultrate, solid, both surfaces convex, distinct teeth along the hind edge*Alohini*.
- Post-tibial spur cultrate, solid but with inner surface concave; no teeth along hind edge.....*Tropidocephalini*
- Post-tibial spur laminate or foliaceous, sometimes tectiform, with or without teeth along hind edge *Delphacini*

ALOHINI.

- 1 (4) First joint of antennæ very short, broader than long; second joint short and thick, often ovaliform or sub-ovaliform (all macropterous).
- 2 (3) Two median frontal carinæ, approximating at base or apex, or both, or even meeting together, but not forming a stalk *Leialoha*.
- 3 (2) A single median frontal carina, forked at extreme base, if at all *Nesodryas*.
- a Slender, elongate forms.....Subgenus *Nesodryas*
- b Broader, more robust forms.....Subgenus *Nesochoe*
- 4 (1) First joint of antennæ distinctly longer than broad, second joint cylindrical or only slightly enlarged at middle (few macropterous, most brachypterous).
- 5 (8) Two median frontal carinæ.

- 6 (7) Tegmina reaching well beyond middle of abdomen.....*Aloha*.
 7 (6) Tegmina very short, not reaching to middle of abdomen.....*Nesorestias*.
 8 (5) One median frontal carina, forked or simple.
 9 (10) Head enormously elongate, longer than thorax and abdomen combined.....*Dictyophorodelphax*.
 10 (9) Head not elongate.
 11 (12) Mesonotum with rounded disk, a depression dividing the disk from the posterior angle.....*Proterosydne*.
 12 (11) Mesonotum with flattened disk, no distinct depression dividing the disk from posterior angle.....*Nesosydne*.

TROPIDOCEPHALINI.

- 1 (8) Lateral carinae of vertex and face only moderately developed.
 2 (7) First joint of antennae terete, or if at all flattened than longer than wide with lateral edges sub-parallel.
 3 (4) Vertex turbinate (triangular with curved sides), sometimes considerably elongate; lateral edges of face arcuate; antennae very much shorter than face, first joint annular, second about twice the length of first.....*Tropidocephala*.
 4 (3) Vertex quadrate.
 5 (6) Antennae slightly longer than face, joints subequal in length, first slightly flattened; lateral edges of face straight, subparallel; length of vertex equal to width at base; in profile clypeus not bent at right angle to face.....*Sogatopsis*.
 6 (5) Antennae about length of face, first joint terete, about 2-3 length of second; lateral carinae of face arcuate; in profile clypeus bent at right angle to face.....*Arcofacies*.
 7 (2) First joint of antennae subsagittate, broader at apex than base, only a little longer than wide.....*Bambusibatus*.
 8 (11) Lateral carinae of vertex and face forming deep keels.
 9 (10) First joint of antennae about equal to second, not foliaceous.....*Lanaphora*.
 10 (9) First joint of antennae much longer than second, flattened, foliaceous.....*Purehita*.

(To be continued.)

ON THE EARLY STAGES OF TWO MOTHS.

BY WM. BARNES AND J. MCDUNNOUGH, DECATUR, ILL.

Apantesis michabo Grt.

Eggs of this species were received early in the spring from Southern Pines, N. C. They were laid in small patches of from 30-40 ova in one patch and were similar to those of *A. arge*. The larvae fed up quickly on lettuce and dandelion. It was noticeable that the larvae producing the male moths underwent one less moult than those producing the female; on account of this extra moult the female larvae were considerably smaller than the male ones in the fourth and fifth stages, but when full grown were much larger.

Stage I.—Head black. Body pale greyish with large black tubercles similar in arrangement to those of our sketch (Can. Ent., 44, p. 133, 1912). Prothoracic plate brownish, rounded posteriorly, with four long black equidistant setae on anterior margin and two similar setae on posterior margin situated one on each side of the centro-dorsal line; laterad to each of these is a minute white seta. Posterior to the outer corner of the prothoracic plate is a minute white seta situated on a small chitinous patch; laterad to this plate, on the anterior margin of the segment, is a larger chitinous patch with two black setae, below which again are two small white setae on a small chitinous area. On the meso- and metathorax the two setae of tubercles I. and the single seta of III are black, all the others white and shorter than the black ones; tubercle IV situated laterad and posterior to III, small; on the first eight abdominal segments the seta of tubercle II and the upper one of III are black, the setae of the other tubercles and the lower one of III being white; tubercle I minute. On the 9th abdominal segment two large dorsal tubercles contain each 4 setae and the anal plate is shield-shaped with four short setae on each side of the centro-dorsal line.

Stage II.—Head black with the sutures of the clypeus strongly marked in white. Body black-brown dorsally, shading into light brown laterally; a broad dorsal whitish stripe, a narrower sub-dorsal one above tubercle III and a slightly waved subspiracular one between tubercles IV and V. The tubercles are black and