

42. Family NEMESTRINIDAE

By Nelson Bernardi

The family Nemestrinidae comprises almost 300 species of brachycerous flies. Although the family is distributed worldwide, species concentration is high in just a few areas, including Australia. In the areas covered by this catalog the family is well represented only in Australia (particularly the eastern half), with a few New Guinean records. The 5 extant subfamilies have representatives in the areas, although the occurrence of the Hirmoneurinae may be considered doubtful. *Hirmoneura nigripes* Macquart, previously thought to be Australian, has been placed as a South African species of *Prosoeca* Schiner (Bowden 1980a). About 54 species in 7 genera (out of 23 genera worldwide) have been reported from the areas. It is reasonable

to expect that several new species await description.

Immatures of species belonging to 3 genera have been studied in some detail, including the Australian *Trichopsidea oestracea*. Larvae parasitize either grasshoppers (Trichopsidaeinae) or scarabaeid beetles (Hirmoneurinae). Acridophagous forms are considered important in the control of grasshopper populations. Adults have often been observed on flowers.

The present classification of the family was established by Bernardi (1973, 1976).

Refs.: Bernardi (1973, 1976, cat., keys, rev.), Fuller (1938b, biol.), Mackerras (1925, keys, rev.), Paramonov (1953e, keys, rev.).

Subfamily HIRMONEURINAE

Unplaced species of Hirmoneurinae

ales Newman, 1841: 220 (*Rhynchocephalus*). "Australia."

Subfamily NEMESTRININAE

Genus TRICHOPHTHALMA Westwood

TRICHOPHTHALMA Westwood, 1835e: 448 (*Nemestrina* subg.). Type species: *Nemestrina bivittata* Westwood, 1835, des. Lichtwardt, 1910: 371.
TRICHOPHTHALMA, error for *Trichophthalma*.

Subgenus AUSTROGASTROMYIA Bequaert

AUSTROGASTROMYIA Bequaert, 1932b: 30. Type species: *Hirmoneura novaehollandiae* Macquart, 1840, orig. des.

bancrofti Mackerras, 1925: 509, 533. Australia (Qld); Australia (NSW).

doddi Paramonov, 1953e: 260, 274. Australia (Qld).

froggatti Paramonov, 1953e: 260, 274. Australia (Qld).

nigrovittata Mackerras, 1925: 509, 531. Australia (NSW); Australia (Qld).

novaehollandiae Macquart, 1840: 18 [1841: 297] (*Hirmoneura*). "Nouvelle-Hollande"; Australia (NSW, Qld, SA, Vic).

funesia Walker, 1849: 231. "New Holland."

gigas Newman, 1841: 220. Australia (NSW).

scapularis Bigot, 1881b: 18. "Australia"; Australia (ACT, NSW, Qld, Vic).

pallipes Paramonov, 1953e: 261 (*scapularis* var.). Australia (NSW & Qld).

nigripes, authors, not Macquart, 1840, misid.

Subgenus LICHTWARDTIOMYIA Bequaert

- LICHTWARDTIOMYIA** Bequaert, 1932b: 29. Type species: *Nemestrina costalis* Westwood, 1835, orig. des.
- bivitta** Walker, 1857: 135. "Australia"; Australia (NSW, Qld, SA, Vic).
nigricosta Mackerras, 1925: 509, 524 (*bivitta* ssp.). Australia (NSW).
- calabyi** Paramonov, 1953e: 261, 276. Australia (SA).
- confusa** Mackerras, 1925: 509, 521. Australia (NSW); Australia (Qld, Vic).
- costalis** Westwood, 1835e: 448 (*Nemestrina*). "Nova Hollandia"; Australia (NSW, Qld, SA, Vic, WA).
albibasis Walker, 1857: 134. "Australia."
heydenii Jaenicke, 1867: 336 (*Hirmoneura*). "Australia."
fuscipennis Thomson, 1869: 447. Australia (NSW).
ochropa Thomson, 1869: 447. Australia (NSW).
apicalis Mackerras, 1925: 508, 512 (*costalis* ssp.). Australia (WA).
soror Paramonov, 1953e: 277 (*costalis* spp.). Australia (WA).
albitarsis, error for *albibasis*.
- degenera** Walker, 1849: 233. Australia (WA).
longirostris Mackerras, 1925: 509, 530. Australia (WA).
leucophaea, Mackerras, 1925, not Walker, 1849, misid.
- dubiosa** Mackerras, 1925: 509, 527. Australia (NSW); Australia (Vic).
- fortei** Paramonov, 1953e: 265, 287. Australia (WA).
- fullerae** Paramonov, 1953e: 261, 274. Australia (ACT & NSW & Qld).
obscura, Mackerras, 1925, not Westwood, 1835, misid.
- fulva** Walker, 1849: 235. Australia (WA); Australia (NSW, Qld, Vic).
- fusca** Mackerras, 1925: 509, 516. Australia (Qld); Australia (NSW).
- glauerti** Paramonov, 1953e: 264, 286. Australia (WA).
- griseola** Paramonov, 1953e: 263, 283. Australia (WA).
- griseolineata** Mackerras, 1925: 509, 528. Australia (SA).
- harrisoni** Mackerras, 1925: 509, 525. Australia (NSW); Australia (Qld).
- intermedia** Mackerras, 1925: 508, 517. Australia (Qld).
- leucophaea** Walker, 1849: 233. Australia (WA).
heydenii, Hardy, 1924, not Jaenicke, 1867, misid.
- lutea** Paramonov, 1953e: 264, 280. Australia (NSW); Australia (Vic).
- mackerrasi** Paramonov, 1953e: 261, 275. Australia (Qld).
- nicholsoni** Mackerras, 1925: 509, 525. Australia (NSW).
- orientalis** Mackerras, 1925: 519 (*punctata* ssp.). Australia (NSW); Australia (Qld, Vic, WA).
- punctata** Macquart, 1846a: 229(101) (*Hirmoneura*). Australia (Tas); Australia (Qld, SA, Vic).
quadricolor Walker, 1849: 234. Australia (Tas).
nigriventris Macquart, 1850: 402(98) (*Hirmoneura*). Australia (Tas).
minima Mackerras, 1925: 519 (*punctata* var.). Australia (NSW).
novae-hollandiae, authors, not Macquart, 1840, misid.
- regina** Paramonov, 1953e: 263, 282. Australia (WA).
- ruficosta** Mackerras, 1925: 509, 522. Australia (WA).
- rufonigra** Mackerras, 1925: 508, 513. Australia (NSW).
- subcostalis** Mackerras, 1925: 508, 514. Australia (SA).
- transversa** Paramonov, 1953e: 262, 278. Australia (Qld).
- trilinealis** Mackerras, 1925: 509, 526. Australia (NSW).

Subgenus TRICHOPHTHALMA Westwood

- TRICHOPHTHALMA** Westwood, 1835e: 448 (*Nemestrina* subg.). Type species: *Nemestrina bivittata* Westwood, 1835, des. Lichtwardt, 1910: 371.
- albimacula** Walker, 1849: 234. "New Holland"; Australia (NSW, Qld, WA).
occidentalis Paramonov, 1953e: 258 (*albimacula* ssp.). Australia (WA).

- alulata** Paramonov, 1953e: 259, 269. Australia (WA).
bivittata Westwood, 1835e: 448 (*Nemestrina*). "Nova Hollandia" [= Australia (NSW)]; Australia (Qld, Vic, WA).
eques Schiner, 1868: 110. Australia (NSW).
wheeleri Bequaert, 1932a: 164. Australia (WA).
coerulea Paramonov, 1953e: 259 (*bivittata* var.). Australia (NSW).
grisea Mackerras, 1925: 510, 542. Australia (WA).
laetilinea Walker, 1857: 134. "Australia"; Australia (NSW, Qld, Vic).
primitiva Walker, 1857: 134. "Australia"; Australia (NSW, Qld).
tabanina Thomson, 1869: 476. Australia (NSW).
ricardoae Lichtwardt, 1910: 385. Australia (SA); Australia (NSW, Qld).
richardoae, error for *ricardoae*.
rosea Macquart, 1846: 228(100) (*Hirmoneura*). Australia (NSW); Australia (Qld).
aurora Walker, 1849: 342. Australia (NSW).
monotaenia Schiner, 1868: 110. Australia (NSW).
montanea, error for *monotaenia*.
thomsoni Paramonov, 1953e: 258, 270 (n. n. for *bivittata* Thomson). Australia (NSW).
bivittata Thomson, 1869: 476. Australia (NSW). [Preocc. Westwood, 1835.]
variolosa Lichtwardt, 1910: 386. Australia (SA).
variosa, error for *variolosa*.
waterhousei Paramonov, 1953e: 258, 270. Australia (NSW).

Subfamily CYCLOPSIDEINAE

Genus CYCLOPSIDEA Mackerras

- CYCLOPSIDEA** Mackerras, 1925: 557. Type species: *Cyclopsidea hardyi* Mackerras, 1925, orig. des.
hardyi Mackerras, 1925: 559. Australia (Qld); Australia (NSW, SA, WA).

Subfamily TRICHOPSIDEINAE

Genus TRICHOPSIDEA Westwood

- TRICHOPSIDEA** Westwood, 1839: 151. Type species: *Trichopsidea oestracea* Westwood, 1839, mon.
oestracea Westwood, 1839: 151. "Nova Hollandia"; Australia (NSW, Qld, Tas, Vic, WA), PNG (PNG).
ostracea, error for *oestracea*.

Subfamily ATRIADOPINAE

Genus ATRIADOPS Wandolleck

- COLAX** Wiedemann, 1824: 18. Type species: *Colax macula* Wiedemann, 1824, des. Blanchard, 1840: 608. [Preocc. Hübner, 1816.]
ATRIADOPS Wandolleck, 1897: 246 (n. n. for *Colax*).
ATRIATOPS, error for *Atriadops*.
aruanus Paramonov, 1953e: 252, 253. Indonesia (Maluku).
iavanus Wiedemann, 1824: 18 (*Colax*). Indonesia (Java); Australia (NSW, NT, Qld), PNG (Bismarck Arch); India, Indonesia (Sumatra), Sri Lanka, SE Asia.
javanus, error for *iavanus*.
westwoodi Lichtwardt, 1909: 650. "Neuguinea"; Australia (NSW, Qld).

Genus NYCTERIMORPHA Lichtwardt

NYCTERIMORPHA Lichtwardt, 1909: 648. Type species: *Nycterimorpha speiseri* Lichtwardt, 1909, mon.
speiseri Lichtwardt, 1909: 648. Australia (Qld); Australia (NSW).

Genus NYCTERIMYIA Lichtwardt

NYCTERIMYIA Lichtwardt, 1909: 648. Type species: *Trichopsidea dohrni* Wandolleck, 1897, orig. des.
commoni Paramonov, 1953e: 245. Australia (Qld).
horni Lichtwardt, 1912: 27. Australia (Qld).
papuana Bequaert, 1925: 18. Indonesia (Irian Jaya).
septempunctata Lyneborg, 1967: 215. PNG (Bismarck Arch).