The Dolichopodidae (Diptera) of Midway Atoll, with a New Species of *Dactylomyia* Aldrich, and Taxonomic Notes on the Subfamily Neurigoninae[1]

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The Leeward Chain of the Hawaiian Islands is comprised of a series of coralline atolls and rocky pinnacles stretching northwest from the high volcanic islands of Hawai'i. The Midway Group lies near its extreme end, some 1,500 nautical miles from Honolulu and quite isolated from any continental landmass.

Midway has been collected only sporadically for insects, but recent (1997) intensive sampling by Gordon M. Nishida of the Bishop Museum's Hawaii Biological Survey, as well as staff and volunteers of the U.S. Fish & Wildlife Service, Midway Atoll National Wildlife Refuge provided abundant material for this review of its dolichopodid fauna. For methods and abbreviations as well as keys, descriptions, and nomenclature to most Midway species, consult *Insects of Micronesia* (Bickel, 1995).

I. The Dolichopodidae of the Midway Group

Subfamily SCIAPODINAE

Chrysosoma globiferum (Wiedemann)

Material examined: **KURE**.: 14.IX.1964. **LAYSAN**.: (5♂,4♀ : 27.IV–7.V.1959; 20–28.VII. 1959; 16–21.VI.1962. **MIDWAY**: *Sand I.* (more than 150 specimens): I–III.1957; 2. VI.1957; 11–13.V.1970; 11–13.V.1973; Roosevelt & Halsey, 17.II.1997, swept ex. flowering *Pluchea*; 1–17. V.1997, Malaise trap; 17–18.II.1997, yellow pans; Central, 28º12.760'N, 177º22.968'W, Malaise trap, 23.V–6.VI, 6–14.VI, 27–30.VI, 6–14.VII, 4–7.VIII, 11–18.VIII, 1997. *Eastern I.*: IV.1923; 13–16.V. 1997, yellow pans; IV.1923.

Remarks. *Chrysosoma globiferum* is known from China (Oriental and Palaearctic), Taiwan, the Ryukyus, and the Hawaiian Islands (including Midway, Laysan, and Kure Islands). The species is undoubtedly an accidental introduction to the main islands of Hawai'i, from which it was probably secondarily introduced to the Leeward Islands.

While examining these specimens, I noticed an additional diagnostic character on male *C. globiferum:* basitarsus III with a posterior group of 8–9 short curved and somewhat capitate short setae along the basal fifth, adjacent to join with tibia III (male secondary sexual character, MSSC).

Krakatauia micronesiana Bickel

Material examined. **MIDWAY**: *Sand I.* (hundreds of specimens): II.1953, VIII.1956; V.1957; 13–17.XII.1970; 11–13.V.1970; 11–13.V.1973; Roosevelt & Halsey, 17.II.1997, sweeping & 1–17.V.1997, Malaise trap; Dump Lake, at pond edge, 12.V.1997; Central, 28º12.760'N, 177º 22.968'W, Malaise trap, 23.V–6.VI, 6–14.VI, 27–30.VI, 6–14.VII, 4–7.VIII, 11–18.VIII, 1997. **KURE**. (♂, 22): IX.1961; 14.IX.1964.

Remarks. *Krakatauia micronesiana* is confined to Micronesia, and is known from Guam, Palau, Northern Marianas, and Wake Atoll. Considering its distribution and adaptation to atoll habitats, this species could have reached Midway by natural dispersal.

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Subfamily MEDETERINAE

Medetera grisescens de Meijere

Material examined: **Midway**: *Sand I.*: 4♂,8♀ 4–23.IV.1953, 26.I.1964: ♂,22, 13–18.II.1997, Malaise trap; 5♂, 3♀ Roosevelt Airfield, Bunker site, 13–18.II.1997, Malaise trap; Roosevelt & Halsey, 1–17.V.1997, Malaise; ♂,22, 18.II.1997, at light; 8♂,7♀ Central, 28º12.760'N, 177º 22.968'W, Malaise trap, 23.V–6.VI, 6–14.VII, 4–7.VIII, 11–18.VIII, 1997. *Spit I.*, no date.

Remarks. *Medetera grisescens* occurs widely across the Oriental and Australasian regions. It is known from the Pacific island groups of New Caledonia, Fiji, Samoa, Hawai'i (all high islands), Ryukyus, Bonin, and Saipan. The Midway population was probably established from the main Hawaiian islands rather than by dispersal across the northern Pacific.

Subfamily SYMPYCNINAE

Syntormon flexibile Becker

Material examined: **Midway**: *Sand I.*: 6♂,4♀ 17.II.1997, swept ex. *Sesuvium* & *Tournefortia*.

Remarks. *Syntormon flexibile* is a Pacific Basin littoral species, and is widely known from northwestern North America, coastal China, the Russian Far East, Bonin Is, Hawaiian Is, Tonga, New Caledonia, and Australia. In addition, it occurs on St. Helena I in the South Atlantic. Specific searches for this species will probably reveal an even wider distribution.

Subfamily DIAPHORINAE

Chrysotus sp.

Material examined: **MIDWAY**: *Sand I.* : ♂, 17.II.1997, swept ex. *Sesuvium* & *Tournefortia.*

Remarks. This specimen is a headless male which represents an species unknown from the major high Hawaiian Islands. However, the genus *Chrysotus* is rich in the Pacific Basin, with many undescribed species from various archipelagoes. I have examined collections from Polynesia and Micronesia, and this damaged Midway male is closest to an undescribed species from Tonga (BPBM), whose males also have black halteres and dark brown femora.

Subfamily NEURIGONINAE

Dactylomyia vockerothi Bickel, **n. sp.** Figs. 1–2b

Type material: **MIDWAY**: *Sand I.*: Holotype ♂ (BPBM 15,968), Paratypes, 2♂,8♀, Roosevelt & Halsey, 1–17.V.1997, Malaise trap, G. Nishida; Paratypes, 5♂,25♀, Central, 28°12.760'N, 177°22.968'W, Malaise trap, 23.V–6.VI, L. Patrick, 6–14.VII, N. Seto, 11–18.VIII, 1997, A. Gall (BPBM).

Description. **Male**: length: 3.3; wing: 2.8 × 1.3

Head: head wider than high; pair of short black vertical setae, pair of long black diverging ocellar setae, and short pale postvertical setae present; frons metallic green bronze with dusting of silvery pruinosity; face and clypeus with dense silvery pruinosity, and distinctly separating eyes; palp large, yellow with some short brown setae along outer margin; proboscis brown; scape and pedicel yellow; first flagellomere basally yellow and distally dark brown, short and rounded; pedicel truncate with first flagellomere; arista dorsal, bare and about as long as head height; postocular row entirely white; ventral postcranium with some strong pale setae.

Thorax: posterior slope of mesonotum distinctly flattened, even slightly concave; dorsum mostly metallic green with general dusting of silvery pruinosity, but ac band, mesonotal depression, and area laterad of median dc rows metallic bronze; pleura mostly metallic green with grey pruinosity, except metepimeron yellow; ac with 2 rows of 12–14 short whitish setulae ending at mesonotal

depression; dc comprising 2 strong black setae bordering mesonotal depression, with shorter black seta anteriad, and with dc area expanding anterolaterally to cover most of anterior mesonotum with 5–6 irregular rows of whitish setulae, so that area from dc row laterally to margin of mesonotum comprises field of whitish setulae, which subsumes the normal position of sr setae; additional strong black setae include: 1 pa, 2 sa, 2 npl, 1 hm, and 1 pm; median scutellars strong and black, laterals as tiny pale hairs; lower proepisternum with 2 pale setae.

Legs: CI and CIII yellow; CII infuscated basally, becoming yellowish distad; remainder of legs yellow, except as noted; CI and CII with pale yellow anterior setae, CIII with pale lateral seta; all femora and tibiae devoid of major setae; I: 5.0; 5.5; 2.7/ 2.6/ 0.7/ 1.5/ 0.5 (Fig. 1b); TI slightly flattened dorsoventrally (MSSC); It_3 shorter than It_4, white, and with fine curved pale ventral hair (all MSSC); It_4 basally white, and dark brown distally, with some pale ventral hairs (MSSC); It_5 with black subrectangular spatulate projection, from which arises single curved claw (MSSC); II: 6.0; 6.3; 2.7/ 1.6/ 0.8/ 0.3/ 0.6; TII with very short ad setae at 1/3 and 2/3; III: 6.2; 8.6; 3.7/ 3.0/ 2.0/ 1.1/ 0.6; TIII with some very short dorsal setae.

Wing: (Fig. 2a) hyaline; Sc incomplete; vein M with smooth gentle curve toward R_{4+5}, and both veins closely subparallel in distal sixth of wing, and each joining costa anteriad of apex; CuAx ratio: 0.4; vein CuA weak, present as trace and not reaching margin; lower calypter yellow with brown rim and fan of yellow setae; halter pale yellow.

Abdomen: "pseudotergite" or membranous area between terga 1 and 2 not evident; abdominal plaques absent; setae brown with yellow reflections; terga 1 and 2 yellow except tergum 2 with dark green mid-dorsal patch; tergum 3 yellow laterally and anteriorly, but with wide dorsal metallic green band; terga 4–6 mostly metallic green with bronze reflections; segments 7–8 and entire hypopygium (except for dark brown surstyli) pale yellow; postabdomen (Fig. 1a); tergum 6 with only moderate ventral prolongation; segment 7 forming peduncle, with curved triangular sternum attached to cap-like sternum 8; epandrium subrectangular; hypandrium and aedeagus arising from base of epandrium, and both elongate and simple; epandrial lobes separate, with basal and more median lobe which bearing pedunculate seta, and with distal lobe greatly enlarged, prolonged, and arching distad of surstyli, and bearing long and short apical setae; ventral surstylar arm greatly enlarged and partially covering smaller dorsal lobe which also has medial extension; cercus subrectangular and curved, bearing enlarged apical blade-like setae.

Female: similar to male except lacks MSSC, and as noted: face only slightly wider if at all; legs entirely yellow; podomere ratios as: I: 4.5; 5.3; 3.1/ 2.0/ 1.0/ 0.7/ 0.6; It_3 longer than It_4; II: 5.5; 6.1; 5.0/ 2.3/ 1.3/ 0.6/ 0.4; III: 6.0; 8.4; 3.0/ 2.6/ 1.7/ 1.0/ 0.6; abdominal terga 1–2 mostly yellow; terga 3–4 yellow anteriorly and laterally, and metallic green dorso-posteriorly; terga 4–6 mostly metallic green, segment 7 yellow; female abdomen (Fig. 2b) apically blunt; sternum 8 distally setose; terga 9+10 short and rounded, dorsally separated, and partially covering digitiform cercus; cercus with long curved ventral seta.

Remarks. *Dactylomyia vockerothi* is known only from Midway and is the first record of the subfamily Neurigoninae from the Hawaiian Archipelago. It is an accidental introduction, ultimately from the New World tropics, and possibly also occurs on the main Hawaiian islands.

Dactylomyia vockerothi shows distinct size variation, and among 8 females taken in the same Malaise trap sample, wing length ranged from 2.3–2.9. Adult Neurigoninae are often found on tree trunks, poles, and walls.

Faunal studies are rarely as simple as they might seem. Often a species is present which reflects some larger taxonomic confusion, and its underlying systematics has to be investigated. Such is the case of *Dactylomyia*, which is discussed in Part II of this paper. *Dactylomyia vockerothi* is named in honor of J.R. Vockeroth for reasons that will become evident.

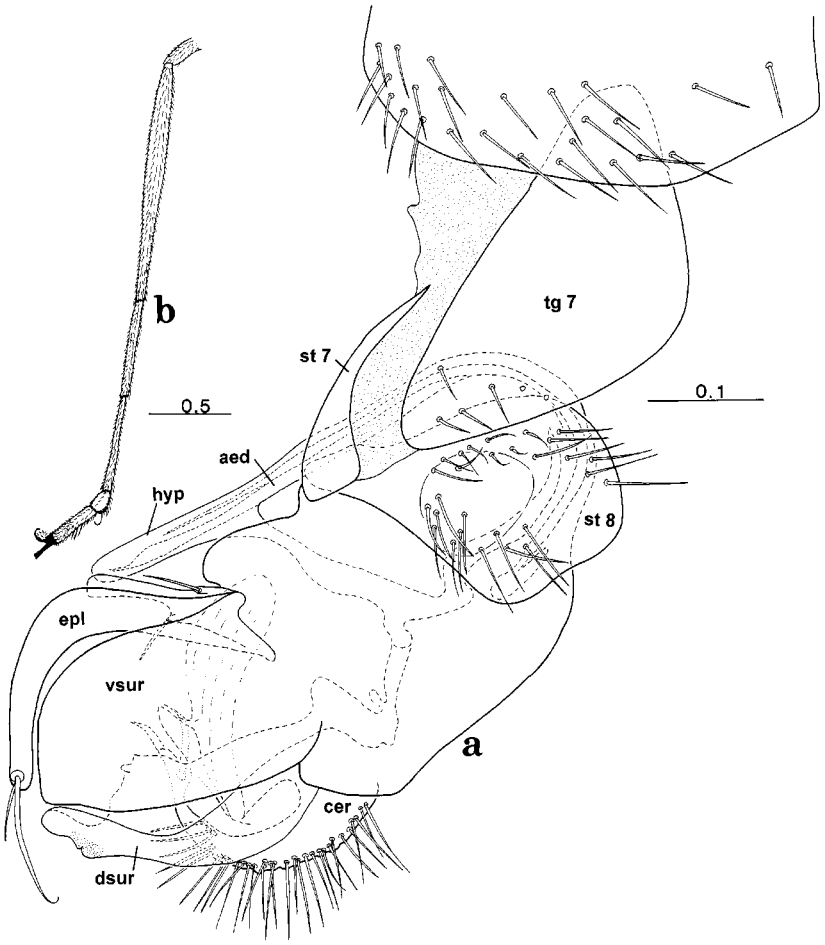

Fig. 1. *Dactylomyia vockerothi* n. sp.: (a) male postabdomen, left lateral. (b) male tibia and tarsus I, posterodorsal. Abbreviations: aed = aedeagus; cer = cercus; epl = epandrial lobe; dsur = dorsal surstylar lobe; hyp = hypandrium; tg = tergum; st = sternum; vsur = ventral surstylar lobe.

Zoogeography of the Midway Dolichopodidae

Midway comprises 2 flat exposed sandy coralline islands, Eastern and Sand, and an emergent sand bar, Spit I., surrounded by fringing reefs. Historically, Midway has been an important cable station and military airstrip. Bryan (1955) noted that when the Pacific Commercial Cable Company station was established on Sand Island, shiploads of soil were brought from Hawai‘i to provide local gardens and *Casuarina* windbreaks. The transported soil along with horticultural specimens would have been ideal media in which to acciden-

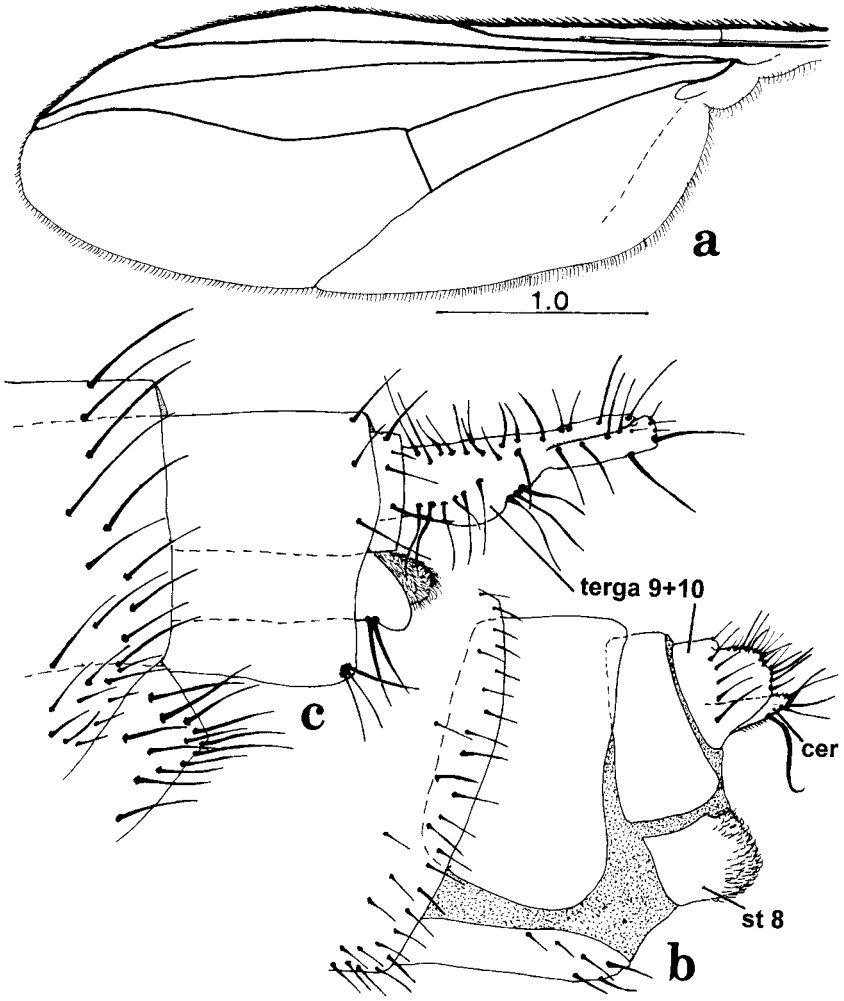

Fig. 2. *Dactylomyia vockerothi* n. sp.: (a) male wing, dorsal. (b) female oviscapt, left lateral. *Neurigona pallida* (Fallén): (c) female oviscapt, left lateral. *Neurigona pallida* Fallén: (c) female oviscapt, left lateral. abbreviations: cer = cercus; st 8 = sternum 8.

tally introduce main Hawaiian island species to Midway (also see Bickel, 1997).

Therefore, it is important to distinguish between species whose range and biology would enable colonization by dispersal from northern Pacific atolls, and those accidentally introduced by human transport from the Hawaiian main islands, in particular O‘ahu. It must be noted that many of these species were themselves accidentally introduced to Hawai‘i.

A. Probable natural colonizers

i. *Krakatauia micronesiana* is found on many isolated low islands in Micronesia, and could have been transported to Midway by wind. This species is unknown from the high islands of Hawai‘i.

ii. *Syntormon flexibile* is a widespread littoral species in the Pacific Basin, and is found throughout the Hawaiian chain.

iii. The genus *Chrysotus* has many undescribed species throughout the tropical Pacific and the Midway species could well be endemic, and related to the Micronesian or Polynesian faunas.

B. Accidental introductions to Midway, probably from the high volcanic Hawaiian islands

i. *Chrysosoma globiferum* from the eastern Orient is a probable accidental introduction to the main islands of Hawai‘i, and a secondary introduction to the Leeward Islands.

ii. *Medetera grisescens* is widespread in the tropical Pacific, and its presence on the high Hawaiian islands could be natural. However, it is a tree trunk associate and undoubtedly was introduced to Midway in transported soil and horticultural specimens.

iii. *Dactylomyia vockerothi* was probably established on Midway in association with horticultural specimens, and is ultimately from the Neotropics. I suspect this species will also be found on O‘ahu.

C. Hawaiian Island endemics

i. *Hydrophorus pacificus* Van Duzee is a coastal species endemic to the Hawaiian Islands. Although not collected on Midway, it might be expected there, as it occurs on Laysan Island (Hardy & Kohn, 1964).

II. Notes on the Subfamily Neurigoninae

When I first saw *Dactylomyia vockerothi* in the Midway collections, I thought it was a member of the widespread genus *Neurigona*. Although this genus does not occur in Polynesia or eastern Micronesia, a group of species close to the Indo-Australian *N. angulata* de Meijere occurs east to the Solomon Islands and New Caledonia. However, the *angulata* group is distinctly different in venation and thoracic chaetotaxy from both the Midway species and *Neurigona* characteristic of the Palaearctic and Nearctic fauna (the genus *Neurigona* itself requires redefinition on a world scale). The Midway species does not match any description from the Palaearctic fauna (Negrobov, 1987; Negrobov & Fursov, 1988). I studied a collection of 35 identified New World *Neurigona* species at the California Academy of Sciences, and found that the Midway specimens were close to *Neurigona lateralis* (Say), a species whose distinctiveness has always been emphasized by J. R. Vockeroth (Robinson & Vockeroth, 1980; Vockeroth, 1994), and which had been the type species of the synonymized genus *Dactylomyia* Aldrich. The re-establishment of *Dactylomyia* and its relationship to other neurigonine genera are discussed below.

Genus **DACTYLOMYIA** Aldrich, **new status**

DACTYLOMYIA Aldrich, 1894: 151. Type species, *Dactylomyia gracilipes* Aldrich, 1894 (mono.) [= *Medeterus lateralis* Say, 1829].

COELINIUM Parent, 1939. 148. Type species, *Coelinium bicolor* Parent, 1939 (orig. des.) **N**. **syn**.

Diagnosis:

Head: dorsal postcranium flat; head wider than high; pairs short vertical, long ocellar, and short postvertical setae present; face and clypeus distinctly separating eyes in both sexes; pedicel truncate with first flagellomere; first flagellomere short and rounded; arista dorsal.

Thorax: posterior slope of mesonotum flattened; ac with 2 rows of short setulae; 3 dc, comprising 2 strong setae bordering mesonotal depression and a shorter seta anteriad, and with only short setulae anteriormost in dc row; anterior mesonotum with 5–6 irregular rows of whitish setulae, form a field of setulae; median scutellars strong, laterals as tiny hairs; lower proepisternum with 2 pale setae.

Legs: mostly yellow; all femora and tibiae devoid of major setae; male tarsus I often modified, especially $It_{3–5}$ (MSSC).

Wing: hyaline; Sc incomplete; vein M with smooth gentle curve toward R_{4+5}, and both veins closely subparallel in distal 1/6 of wing; vein CuA weak, present as trace and not reaching margin (Fig. 2a).

Male abdomen: "pseudotergite" or membranous area between terga 1 and 2 not evident; abdominal plaques absent; segments 7–8 and entire hypopygium (except for dark brown surstyli) pale yellow; tergum 6 with only moderate ventral prolongation; distal epandrial lobe greatly enlarged, prolonged, and arching distad of surstyli, and bearing long and short apical setae; ventral surstylar arm greatly enlarged; cercus subrectangular and curved, bearing apical blade-like setae.

Female abdomen: (Fig. 2b) apically blunt; sternum 8 distally setose; terga 9+10 short and rounded, dorsally separated, and partially covering digitiform cercus; cercus with long curved ventral seta.

Remarks. Aldrich (1894) established *Dactylomyia* for the single species, *D. gracilipes*. Subsequently, Wheeler (1899) placed *D. gracilipes* in synonymy with *Neurigona superbiens* (Loew), and decided against using Aldrich's genus because it was not distinctive enough. Aldrich (1904) placed his genus *Dactylomyia* in synonymy with *Neurigona*, and later (1905) regarded *Neurigona lateralis* (Say) as the senior synonym of the 3 nominal species.

Parent (1939) described the genus *Coelinium* with 2 included species, *C. bicolor* from Costa Rica, and *C. unicolor* from Argentina. Both his description of the thoracic chaetotaxy and figures of the wing and antenna of the type species, *C. bicolor*, indicate that it is congeneric with *Dactylomyia* as here defined. Parent thought the specimen he examined was a male with a hidden or retracted hypopygium. However, his figure of the "male postabdomen" is clearly that of a blunt female *Dactylomyia* abdomen, with the characteristic oviscapt whose cercus bears a long curved ventral seta, and a protruding setose sternum 8, a configuration of characters identical to that in found in both *D. vockerothi* and *D. lateralis* (compare Fig. 2b with Fig. 13 in Parent, 1939).

The second species, the Argentinian *Coelinium unicolor*, is similar in overall wing venation, but differs from *Dactylomyia* in several major points. It has numerous strong setae on tibiae II and III (absent on *Neurigona*, *Dactylomyia*, and most Neurigoninae), and 5 strong dc. The single specimen was damaged and Parent was uncertain as to its sex. In any case, the 2 species should not even be together in the same genus. Possibly *C. unicolor* is related to the monotypic genus *Argentinia* Parent (1931), which has similar venation and tibial chaetotaxy, and has been variously referred to the Medeterinae and Neurigoninae. For now, it is best to regard *Coelinium unicolor* as "Unplaced Dolichopodidae."

Aldrich (1896) described another genus, *Coelogluthus*, based on a single female, *C. concavus*, from St. Vincent, West Indies. His wing figure is similar to that of *Dactylomyia*, otherwise the description is inadequate. Robinson (1975) redescribed the species based on a male and female collected in Dominica. The only other congener is *Coelogluthus sinu-*

atus (Parent), from Central America. Based Robinson's redescription, and the original descriptions of *C. sinuatus* (Parent, 1928) and its junior synonym, *C. bicoloripes* Van Duzee (1933), *Coelogluthus* and *Dactylomyia* share similar thoracic chaetotaxy and weak vein CuA. However, the following characters distinguish the 2 *Coelogluthus* species: arista apical, pedicel with a distal lobe which intrudes into first flagellomere on median side (as in Fig. 25, Van Duzee, 1933), an elongate thorax, and a rather small hypopygium. As well, Dyte (1959) noted that female *C. concavus* has a sclerotized oviscapt, not unlike that of the dolichopodid genus *Thrypticus* (Medeterinae), which possibly is used for oviposition in plant tissue. Negrobov (1986) erected the subfamily Coelogluthinae for *Coelogluthus* and *Neotonnoiria* Robinson, which he based on the elongate, rather obliquely orientated thorax of the 2 included genera. I have not seen specimens nor adequate genitalic figures for either genus, but feel that this subfamily is premature, and pending further study, it is best to keep *Coelogluthus* associated with the Neurigoninae. As a final note, it should be noted that the female holotype of *Dactylomyia bicolor* (as *Coelinium*) and male holotype of *Coelogluthus sinuatus* have the same collection data (Costa Rica: La Caja, Schmidt, 1930), and could be conspecific.

The near cosmopolitan genus *Neurigona* comprises some 100 described species with many more awaiting description. Superficially, it shows a range of variation in thoracic chaetotaxy, venation, and habitus, and the genus needs review and redefinition. As well, its relationship to other neurigonine genera, such as the New Zealand *Halteriphorus* Parent, Australian *Arachnomyia* White, and Palaearctic *Oncopygius* Mik, requires investigation.

Following are some notes on specific aspects on neurigonine morphology:

1. In addition to *Coelogluthus* and *Dactylomyia*, some Oriental and Australasian *Neurigona* also have the anterior mesonotum largely covered by a field of setulae.
2. Males of some species in most neurigonine genera have modified fore-tarsi, including modified tarsomere length and shape, elongate setae, enlarged claws, etc. (all MSSC). These secondary sexual characters probably relate to species recognition and courtship behavior on tree trunks, where the male approaches the female from behind, and places his fore tarsi in front of her head (e.g., Gruhl, 1924).
3. Males in some neurigonine genera have postabdominal terga 5 and 6 enlarged with striking ventral modifications such as cuticular extensions and special setal arrays. These terga also partially enclose the hypopygium at rest. As well, genera in the Neurigoninae have a similar basic hypopygium, comprising an enlarged epandrial lobe which arches distad of the surstyli, and an enlarged ventral surstylar arm.
4. The female abdomen of *Dactylomyia* (Fig. 2b) has terga 9+10 short and rounded, dorsally separated, and partially covering the cercus. The cercus has a long curved ventral seta. This contrasts markedly with the female terminalia of *Neurigona* (e.g., Fig. 2c, the Palaearctic *N. pallida*) where terga 9+10 are prolonged and with a subequal digitiform cercus.

General subfamilial characters of the Neurigoninae include: dorsal postcranium flat, not concave; arista subapical to dorsal; proepisternum with setae; posterior slope of mesonotum flattened; legs elongate, and bare of major setae; hypopygium often with complex appendages, and pedunculate; male terga 5 and 6 often with ventral modifications.

KEY TO *NEURIGONA*, *DACTYLOMYIA* AND *COELOGLUTHUS* IN THE NEW WORLD

1. Dc comprising 5–8 distinct pairs, extending anteriad of mesonotal suture; vein CuA strong, extending to wing margin; vein M ranging from subparallel with R_{4+5} to distally bent toward R_{4+5}; female abdomen telescoped, with terga 9+10 of oviscapt prolonged, and cercus digitiform ..... *Neurigona* Rondani

–. Dc comprising 3 pairs only, 2 strong setae bordering mesonotal depression, with shorter seta posteriad of mesonotal suture; anterior mesonotum with field of whitish setulae; vein CuA weak and not reaching wing margin (Fig.2a); vein M with smooth gentle curve toward R_{4+5}, and both veins closely subparallel in distally; female abdomen (where known) otherwise modified 2

2. Arista apical; pedicel intrudes into first flagellomere on median side; hypopygium rather small, partially hidden; thorax elongate; female with sclerotized blade-like oviscapt .... *Coelogluthus* Aldrich

–. Arista dorsal; pedicel truncate with first flagellomere; hypopygium large, external; female abdomen blunt, with terga 9+10 short and rounded, and cercus with long curved ventral seta (Fig.2b) ..... *Dactylomyia* Aldrich

Summary of taxonomic changes

I. Subfamily NEURIGONINAE

DACTYLOMYIA Aldrich, 1894: 151. Type species, *Dactylomyia gracilipes* Aldrich, 1894 (mono.) [= *Medeterus lateralis* Say, 1829]. **N**. **status**

COELINIUM Parent, 1939: 148. Type species, *Coelinium bicolor* Parent, 1939 (orig. des.). **N**. **syn**.

bicolor Parent, 1939: 149 (*Coelinium*). Costa Rica. **N**. **comb**.

lateralis Say, 1829: 169 (*Medeterus*). Eastern N. America. **N**. **comb**.

superbiens Loew, 1861: 76 (*Saucropus*). USA (Florida).

gracilipes Aldrich, 1894: 169 (*Dactylomyia*). USA (South Dakota).

vockerothi Bickel, n. sp. Hawaiian Islands (Midway).

II. Unplaced species of DOLICHOPODIDAE

unicolor Parent, 1939: 150 (*Coelinium)*. Argentina.

Synonymic Note

Sympycnus pugil Wheeler, 1899: 51.

Neurigona kesseli Hendrickson, 1961: 278. **N**. **syn**.

Hendrickson described *Neurigona kesseli* based on a female holotype and male allotype from California (CAS, examined). Both specimens have a subsequent determination label, “Sympycnus pugil Wheeler /det. F.C. Harmston”, which was also noted by Arnaud (1979). Harmston was correct in his determination and this note serves to make the synonymy formal, as the name *Neurigona kesseli* has appeared in recent checklists.

Acknowledgments

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