

Faunistic Review on the Pselaphine Species Known from New Zealand (Insecta, Coleoptera, Staphylinidae)

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Abstract A checklist for the 42 genera and 385 known pselaphine species of New Zealand is provided with data on their original descriptions, type localities and original species numbers by Thomas Broun, the author of most species. Systematic notes on each genus were given and all taxa are placed in the current pselaphine classification. *Euplectus iracundus* (Broun) is transferred to the genus *Euglyptus*. A list of the “syntypes” of Broun’s species from New Zealand contained in Deutsches Entomologisches Institut, Munchenberg are also provided.

Key words: Pselaphinae, Staphylinidae, fauna, systematics, New Zealand.

Introduction

The subfamily Pselaphinae is one of the most diverse subfamilies of Staphylinidae and in New Zealand (NZ) they occur at sea level to the alpine zone, in tree holes and under rocks, in moss and rotten wood, and are especially abundant in leaf litter, making them ideal for ecological study. And despite their relatively small size, these beetles have extraordinary body forms that bear foveae, pits, sulci and grooves that facilitate their identification and make them a fascinating group for taxonomic study. Another feature of the NZ fauna is its richness with endemic taxa, especially Faronitae and Euplectitae, while Goniaceritae and Clavigeritae are completely absent, a classic case of disharmony indicative of islands. The only drawback to the study of NZ pselaphines is that the group has never been revised, there are perhaps hundreds of undescribed species, and the biology is poorly known.

The first pselaphine species were described in the 19th Century, first by David Sharp (1874) who described 30 species on the basis of a collection sent to him by Thomas Broun. Most of the New Zealand species of Pselaphinae were described by Broun from 1883 to 1922, and he named 334 species, 86.8% of the existing names. During Broun’s time, Raffray (1893, 1904b) and Reitter (1880, 1885) also named several species. Following these early workers, only a few species have been described during following 80 or so years. Park and Pearce (1962) defined a new genus *Simkinion* with descriptions of two new species from Northland. Park (1964) also described a new genus and a new species, *Pselaphotheseus hippolytae* from Campbell Island, which is the first record of pselaphine species from the NZ subantarctic islands. Recently, Carlton and Leschen (2001) added the second species of *Pselaphotheseus*, *P. ihipuku* also from Campbell Is-

land. Here we provide a checklist of genera and species described and recorded in NZ; we also provide data on their original descriptions, type localities and original species numbers by Broun. This is largely based on examination of specimens in the New Zealand Arthropod Collection, Auckland (NZAC) by S. Nomura.

This is not the first checklist for pselaphines; this group was included by Hutton (1904) in his catalogue of NZ insects. A more recent checklist of the NZ staphylinid genera that included pselaphines, was published by Klimaszewski *et al.* (1996): these authors listed taxa that were endemic and introduced and enumerated the number of species for each genus. In a large revision of Australian pselaphines, Chandler (2000) also recorded additional taxa from NZ that he recorded from both areas. Newton and Thayer (2003) presented a comprehensive on-line database of all staphylinid species known from the Southern Hemisphere, and the NZ pselaphine checklist we provide is based on their work and modified further to include additional information.

Materials and Methods

Systematic notes in the following were based on the identified material of pselaphines contained in the NZAC and recently collected material obtained by the authors during fieldwork in NZ. Most data (species names, original descriptions, the type localities and distributional ranges) are extracted from the on-line database by Newton & Thayer (2003). The higher classification system of Pselaphinae proposed by Chandler (2000) is adopted for this checklist. We also provide a list of Broun material inappropriately labeled as types in the DEI (Deutsches Entomologisches Institut, Müncheberg, Germany) examined by S. Nomura.

Systematic Notes

In this chapter, all scientific names and synonyms of pselaphine genera and species known from NZ are given. The genera are listed according to systematic position by family-group and listed alphabetically: genera that were not placed prior to this study are located based on their similarity to related taxa. For each species, the data of original description are followed, author names, years and the following symbol (a, b, c, ...) of which are coincident with the papers cited. The type localities are added and the distributional ranges in NZ are indicated by the geographical area codes developed by Crosby *et al.* (1998) (Plate 8) in square brackets. Though geographic information for all species is limited we indicate those species recorded in Lynfield, Auckland, by Kuschel (1990) by an asterisk (*). For each of Broun's species, his reference numbers are indicated by angle brackets behind the page numbers. Junior primary homonymns are indicated by acronym (JPH).

Supertribe FARONITAE

Tribe FARONINI

Genus *Exeirartha* Broun (Figs. 1–3)

Exeirartha Broun, 1893a: 1054. Type species: *Exeirartha enigma* Broun by monotypy.

Remarks. This genus is very similar to the more diverse genus *Sagola* and is separated from it by having the enlarged second segment of the protarsus in the male (Fig. 3) and the very short and scarcely visible palpal spine on the fourth palpal segment. While these characters are distinct in the type species, they vary among the other species of the genus and may not be re-

garded as diagnostic for the genus. *Sagola planicula* Broun was transferred to *Exeirarthra* by Kuschel, 1990, though it should be *Sagola*, because it does not have key characters of this genus.

List of species:

- E. angustula* Broun, 1917: 374 (3824). Glenhope, near Nelson [NN].
E. enigma Broun, 1893a: 1054 (1885). Near Howick [AK]* (Figs. 1–3)
E. longiceps Broun, 1917: 375 (3825). Hollyford, north of Lake Wakatipu [OL].
E. pallida Broun, 1893a: 1424 (2474). Maketu, Hunua Range [AK].
E. parviceps Broun, 1921a: 486 (3992). Mount Hope, near Nelson, nearly 4000 ft. [NN].

Genus *Sagola* Sharp (Figs. 4–14, 97–102)

Sagola Sharp, 1874c: 506. Type species: *Sagola misella* Sharp, designated by Oke, 1928: 5.

Remarks. This is a very large and morphologically diversified genus distributed in NZ and Australia. It includes 131 species known from NZ. This genus is characterized by the short median longitudinal sulcus on the frons and the clearly transverse head.

List of species:

- S. acuminata* Broun, 1921a: 498 (4009). Routeburn [OL].
S. aemula Broun, 1921a: 496 (4006). Mistake Basin, Canterbury [MC].
S. affinis Broun, 1921a: 500 (4012). Mount Algidus [MC].
S. angulifera Broun, 1911b: 491 (3363). Waimarino, 2700 ft. [TO].
S. anisarthra Broun, 1893a: 105 (1884). Moeraki [DN].
S. arboricola Broun, 1921a: 502 (4015). Hollyford, 3500 ft. [OL].
S. auripila Broun, 1911b: 500 (3371). Erua, 2400 ft. [TO].
S. basalis Broun, 1911b: 496 (3368). Paparoa Bush, near Howick [AK].
S. bifida Broun, 1915: 290 (3706). Woodhill, Kaipara Railway [AK].
S. bifoveiceps Broun, 1912b: 629 (3489). Greymouth [BR].
S. biimpressa Broun, 1912b: 630 (3490). Greymouth [BR].
S. bilobata Broun, 1921a: 486 (3993). Mounts Dick, Alfred & Earnslaw, near Lake Wakatipu, over 1000 ft. [OL] (Figs. 4, 97, 98).
S. bipunctata Broun, 1886: 887 (1580). Near Whangarei Harbour [ND].
S. bipuncticeps Broun, 1921a: 499 (4011). Mount Algidus, Canterbury [MC].
S. bituberata Broun, 1914b: 160 (3525). Greymouth [BR].
S. brevicornis Raffray, 1893b: 27. Auckland [AK].
S. brevifossa Broun, 1921a: 501 (4014). Routeburn [OL].
S. brevisternis Broun, 1915: 284 (3699). Pudding Hill, near Methven [MC].
S. brevitaris Broun, 1886: 887 (1579). Paparoa, south of Auckland [AK].
S. carinata Broun, 1912b: 622 (3482). Greymouth [BR].
S. castanea Broun, 1886: 884 (1573). West Taieri bush [DN].
S. cilipes Broun, 1921a: 491 (3999). Waitakerei Reservoir, near Auckland [AK].
S. citima Broun, 1893b: 177 (none). Wellington [WN].
S. clavatella Broun, 1912b: 631 (3491). Greymouth [BR].
S. cognata Broun, 1911b: 494 (3365). Tairua [CL].
S. colorata Broun, 1914b: 156 (3519). McClennan's Bush, near Methven [MC].
S. concolorata Broun, 1915: 292 (3709). Tairua [CL].
S. confusa Broun, 1915: 286 (3701). Hunua Range, Clevedon [AK].
S. convexa Broun, 1886: 889 (1583). Tuakau, Waikato [AK].

- S. cordiceps* Broun, 1921a: 493 (4002). Mount Alfred [OL].
- S. crassulipes* Broun, 1915: 283 (3697). Epsom, base of Mount Eden [AK].
- S. deformipes* Broun, 1880: 138 (252). Tairua [CL].
- S. denticollis* Broun, 1880: 138 (253). Tairua [CL].
- S. dickensis* Broun, 1917: 377 (3827). Mount Dick, near Kingston [OL] (Figs. 5, 99, 100).
- S. dilucida* Broun, 1914b: 157 (3520). Epsom, base of Mount Eden [AK].
- S. disparata* Broun, 1914b: 160 (3524). Old Man Range, Otago [CO].
- S. dissonans* Broun, 1921b: 601 (4165). Tauherenikau Bush, near Featherston [WA].
- S. distorta* Broun, 1921b: 602 (4166). Tauherenikau [WA].
- S. diversa* Broun, 1911b: 495 (3366). Midhurst, near Mount Egmont [TK].
- S. duplicata* Broun, 1886: 888 (1581). Parua, near Whangarei Harbour [ND]*.
- S. electa* Broun, 1914a: 91 (3400). Erua, 2500 ft. [TO].
- S. elevata* Broun, 1886: 886 (1578). Woodhill, near Helensville [AK].
- S. elongata* Broun, 1893a: 1423 (2472). Karaka, near Drury [AK].
- S. eminens* Broun, 1895: 75 (none). Tarukenga, near Rotorua & Mount Pirongia [BP,WO] (Fig. 6).
- S. excavata* Broun, 1886: 884 (1574). Paparoa district, south of Auckland [AK]*.
- S. fagicola* Broun, 1921a: 494 (4004). Mount Dick, Lake Wakatipu, 1100 ft. [OL].
- S. fasciculata* Broun, 1921a: 497 (4007). Glenhope, near Nelson [NN].
- S. flavipes* Broun, 1893a: 1422 (2471). Maketu [AK].
- S. fovealis* Broun, 1886: 886 (1577). Waitakerei Range [AK].
- S. foveiventris* Broun, 1921a: 492 (4000). Hollyford, north of Lake Wakatipu [OL].
- S. frontalis* Raffray, 1893b: 23. NZ.
- S. fulva* Broun, 1893a: 1052 (1881). Clevedon [AK].
- S. fulvipennis* Broun, 1915: 289 (3705). Tairua, Auckland [CL].
- S. furcata* Broun, 1921a: 495 (4005). Belgrove, near Nelson [NN].
- S. fuscipalpis* Broun, 1914b: 159 (3523). Mount Hutt, near Methven [MC].
- S. genalis* Broun, 1881: 663 (1157). Wellington? [WN]*.
- S. grata* Broun, 1912b: 628 (3488). Picton [SD].
- S. guinnessi* Broun, 1911b: 502 (3373). Erua [TO].
- S. halli* Broun, 1914b: 155 (3518). Pudding Hill, near Methven [MC] (Figs. 7, 8, 101, 102).
- S. hectorii* Broun, 1917: 378 (3829). Belgrove, near Nelson [NN].
- S. hirtalis* Broun, 1893a: 1050 (1876). Near Howick [AK].
- S. ignota* Broun, 1921a: 495 (4004). Routeburn, north of Lake Wakatipu [OL].
- S. immota* Broun, 1893a: 1422 (2470). Maketu [AK].
- S. indiscreta* Broun, 1915: 288 (3703). Howick, near Auckland [AK].
- S. insignis* 1893a: 1049 (1875). Mokohinou Island [ND].
- S. insolens* Broun, 1893a: 1051 (1879). Near Howick [AK].
- S. insueta* Broun, 1914b: 157 (3521). Curiosity Gully, near Methven [MC].
- S. laetula* Broun, 1915: 291 (3708). Hunua Range, near Clevedon [AK].
- S. laminata* Broun, 1893a: 1421 (2469). Maketu, Hunua Range [AK]*.
- S. laticeps* Broun, 1911b: 490 (3362). Greymouth [BR].
- S. latistriata* Broun, 1911b: 495 (3367). Ligar's Bush, Papakura [AK].
- S. latula* Broun, 1912b: 633 (3493). Greymouth [BR].
- S. lawsoni* Broun, 1912b: 632 (3492). Auckland [AK].
- S. lineata* Broun, 1893b: 175 (none). Mount Pirongia [WO] (Fig. 9).

- S. lineiceps* Broun, 1921a: 504 (4018). Glenhope [NN].
- S. longicollis* Broun, 1911b: 498 (3369). Mahuia, near Mount Ruapehu [TO].
- S. longipennis* Broun, 1911b: 504 (3375). Erua, 2400 ft. [TO]*.
- S. longipes* Broun, 1915: 287 (3702). Woodhill, Kaipara Railway [AK].
- S. longula* Broun, 1912b: 625 (3485). Auckland [AK].
- S. macronyx* Broun, 1893a: 1418 (2466). Maketu, Hunua Range [AK].
- S. major* Sharp, 1874: 507 (246). NZ*. (Fig. 10)
- S. mimica* Broun, 1893a: 1419 (2467). Hunua Range, Clevedon [AK].
- S. minuscula* Broun, 1921a: 497 (4008). Heaven's Gate, near Mount Earnslaw; Mount Alfred & Staircase, southern end of the Remarkables [CO,OL] (Fig. 11).
- S. misella* Sharp, 1874: 508 (248). New Zealand
- S. monstrosa* Reitter, 1880: 168. Type locality is not given (Greymouth implied). [BR?] (Figs. 12, 13).
- S. monticola* Broun, 1912a: 402 (3195). Mount Ngauruhoe [TO]*.
- S. nitida* Broun, 1911b: 492 (3364). Greymouth [BR].
- S. notabilis* Broun, 1880: 137 (251). Tairua [CL]*.
- S. occipitalis* Broun, 1912b: 624 (3484). Greymouth [BR].
- S. opercularis* Broun, 1915: 284 (3698). Rakaia Gorge, near Methven [MC].
- S. osculans* Broun, 1886: 885 (1576). Woodhill [AK].
- S. pallidula* Broun, 1912b: 626 (3486). Greymouth [BR].
- S. parallela* Broun, 1893a: 1053 (1883). Clevedon [AK].
- S. parva* Sharp, 1874: 508 (249). NZ.
- S. pertinax* Broun, 1893b: 176 (none). Ohaupo, Waikato, near Mr. Kusab's saw-mill [WO].
- S. planicula* Broun, 1921a: 503 (4017). Mount Te Aroha, Auckland, 2000 ft. [BP]*.
- S. planipennis* Broun, 1921a: 500 (4013). Mount Oakden, Canterbury [MC].
- S. posticalis* Broun, 1915: 291 (3707). Wairiri, Kaikoura [KA].
- S. prisca* Sharp, 1874: 507 (247). New Zealand
- S. pulchra* Broun, 1880: 137 (250). Tairua [CL].
- S. punctata* Broun, 1893a: 1052 (1880). Tairua [CL].
- S. puncticeps* Broun, 1911b: 489 (3361). Tairua, Auckland [CL].
- S. puncticollis* Broun, 1911b: 499 (3370). Timaru [SC].
- S. punctulata* Raffray, 1893b: 21. NZ.
- S. rectipennis* Broun, 1921a: 489 (3997). Mount Alfred, north of Lake Wakatipu [OL].
- S. rectipes* Broun, 1893a: 1051 (1878). Tairua [CL].
- S. remixta* Broun, 1921a: 502 (4016). Mount Owen [NN].
- S. robusta* Broun, 1893a: 1420 (2468). Hunua Range, near Drury [AK] (Fig. 14).
- S. robustula* Broun, 1917: 377 (3828). Routeburn, north of Lake Wakatipu [OL].
- S. rotundiceps* Broun, 1915: 289 (3704). Stratford, base of Mount Egmont [TK].
- S. rufescens* Broun, 1921a: 499 (4010). Staircase, nearly ten miles north of Kingston [CO].
- S. ruficeps* Broun, 1893a: 1053 (1882). Clevedon [AK].
- S. rugifrons* Broun, 1895: 73 (none). Mount Pirongia [WO].
- S. rustica* Broun, 1915: 285 (3700). Rakaia Gorge [MC].
- S. setiventris* Broun, 1915: 282 (3696). Erua [TO].
- S. sharpi* Raffray, 1893b: 26. NZ.
- S. sobrina* Broun, 1893a: 1050 (1877). Mokohinou Island [ND].
- S. socia* Broun, 1915: 281 (3695). Pudding Hill, near Methven, 3500 ft. [MC].

- S. spinifer* Broun, 1895: 75 (none). Mount Pirongia [WO].
S. spiniventris Broun, 1912b: 627 (3487). Picton [SD].
S. strialis Broun, 1921a: 489 (3996). Moa Hill, Canterbury, 4000 ft. [MC].
S. striatifrons Broun, 1921a: 492 (4001). Harris Saddle & Hollyford, etc., 1100–4200 ft. [OL].
S. subcuneata Broun, 1921a: 488 (3995). Moa Basin [MC].
S. sulcator Broun, 1886: 885 (1575). Woodhill, on the Kaipara Railway, near Helensville [AK].
S. suturalis Broun, 1914b: 158 (3522). Rakaia Gorge, near Methven [MC].
S. tenebrica Broun, 1921a: 487 (3994). Moa Basin, Canterbury [MC].
S. tenuis Broun, 1886: 888 (1582). Tairua [CL].
S. terricola Broun, 1886: 832 (1480). Waitakerei Range [AK].
S. unicalis Broun, 1917: 376 (3826). Scarcliff, near Mt. Algidus & Moa Basin [MC].
S. valida Broun, 1921a: 490 (3998). Mount Owen & Woodhen Bend, near Glenhope [NN].
S. ventralis Broun, 1912b: 623 (3483). Greymouth [BR].

Genus *Stenosagola* Broun (Figs. 15, 16)

Stenosagola Broun, 1921a: 504. Type species: *Stenosagola planiocola* Broun designated by Newton & Chandler, 1989: 18.

Remarks. According to the original description of this genus, *Stenosagola* is separated from the genus *Sagola* by the following characters: body very narrow and slender; pronotum ovi-form; elytra subquadrate, each with a short and undivided dorsal sulcus; abdomen twice as long as elytra; antennae not longer than combined length of the head and pronotum. Two unidentified species of this genus are in NZAC, and their unique characters, the slender and very narrowed body, the oviform pronotum and some characters indicated above are distinct as shown in Figs. 15, 16.

List of species:

- S. connata* (Broun, 1911b): 503 (3374). Erua [TO].
S. crassicornis (Broun, 1911b): 501 (3372). Raurimu, Main Trunk Line, 1900 ft. [TO].
S. gracilis (Broun, 1893a): 1424 (2473). Mount Pirongia [WO].
S. griseipila Broun, 1921a: 506 (4021). Makatote, near Erua [TO].
S. oblongiceps Broun, 1921a: 505 (4020). Glenhope [NN].
S. planiocola Broun, 1921a: 505 (4019). Glenhope [NN].

Supertribe EUPLECTITAE

Tribe EUPLECTINI

Genus *Euplectus* Leach (Figs. 17, 18)

Euplectus Leach, 1817: 82. Type species: *Euplectus reichenbachii* Leach by monotypy.

Remarks. *Euplectus* is a taxonomically rich genus distributed mainly in the Holarctic, though it is not so well-represented in Australia (1 species) and NZ. Some species in the following list should be transferred to other genera. Here we transfer *Euplectus iracundus* to the genus *Euglyptus* (see below). *Euplectus sculpturatus* (Fig. 19) was identified *Plectomorphus* by Kuschel (1990), though it should be placed in a group of true *Euplectus* and allied genera. Three species, *E. opacus*, *E. ovocollis* and *E. tuberigerus* were combined with the genus *Euplectopsis* by

Kuschel (1990), but they are reclassified into this genus by Newton & Thayer (2003). There are an additional seven undescribed species contained in the NZAC.

List of species:

- E. auripilus* Broun, 1886: 945 (1701). Near Howick [AK].
E. caviceps Broun, 1904: 48 (none). Thompson's Gorge [DN].
E. cephalotes Reitter, 1880: 171; preoccupied, not Motschulsky, 1845 (JPH). Type locality is not given (Greymouth implied). [BR?].
E. frontalis Broun, 1880: 142 (260). Tairua [CL].
E. incomptus Broun, 1884: 239; also 1886: 921 (1652). Tairua [CL].
E. leiphorus Broun, 1893a: 1056 (1887). Clevedon [AK].
E. longulus Broun, 1880: 141 (257). Tairua [CL].
E. opacus Sharp, 1874: 509 (258). Auckland [AK]*.
E. ovicollis Broun, 1880: 143 (262). Tairua [CL]*.
E. personatus Broun, 1893a: 1059 (1894). Near Howick [AK].
E. scruposus Broun, 1893a: 105 (1889). Near Clevedon [AK].
E. sculpturatus Broun, 1880: 142 (259). Tairua [CL]*.
E. semiopacus Broun, 1895: 81 (none). Maketu, Hunua Range [AK].
E. sulciceps Broun, 1904: 49 (none). Thompson's Gorge, Otago [DN].
E. tuberigerus Broun, 1882: 289; also 1886: 760 (1348). Near Whangarei Harbour [ND]*.
E. unicus Broun, 1893a: 1060 (1895). Stratford, near Mount Egmont [TK].
E. vacuus Broun, 1884: 239; also 1886: 921 (1651). Paparoa (Howick). [AK].
E. verticalis Broun, 1893a: 1061 (1897); preoccupied, not Reitter, 1884 (JPH). Near Howick [AK].

Genus *Leptoplectus* Casey (Fig. 20)

Leptoplectus Casey, 1908: 266. Type species: *Euplectus pertenuis* Casey designated by Lucas, 1920: 371.

Remarks. This genus is broadly distributed in Holarctic and Oriental regions. Klimaszewski *et al.* (1996) recorded this genus based on two undetermined species in the Lynfield collection of NZAC (Fig. 20). The genus was not considered to be adventive species in that paper, but it is probably introduced. This genus is very similar to *Euplectus*; however, it is separated from it by having the labrum with a large and arcuate emargination on the anteromedian area.

Tribe TRICHONYCHINI

Subtribe TRICHONYCHINA

Genus *Macroplectus* Raffray (Fig. 21)

Macroplectus Raffray, 1898: 255. Type species: *Macroplectus calcaratus* Raffray designated by Lucas, 1920: 389.

Remarks. The tribe Trichonychini was redefined by Chandler (2000) to include four subtribes (Trichonychina, Panaphantina, Bibloporina and Trimiina) including tribe-level synonymies. The genus *Macroplectus* was revised in the same work by Chandler (2000) and two *Gabata* and a *Vidamus* species known from NZ were transferred to this genus. *Macroplectus* is characterized by the large and posterolaterally expanded head and the pronotum without a distinct median longitudinal sulcus; it is difficult to distinguish from the genus *Vidamus* of Panaphantina.

List of species:

M. bifoveata (Broun, 1921a): 514 (as *Gabata*) <4033>. Routeburn [OL].

M. parallela (Broun, 1921a): 515 (as *Gabata*) <4034>. Routeburn [OL].

M. spinipes (Broun, 1910): 21 (as *Vidamus*) <3048>. Broken River [MC] (Fig. 21).

Subtribe PANAPHANTINA**Genus *Adalmus* Reitter**

Adalmus Reitter, 1882c: 210. Type species: *Adalmus velutinus* Reitter by subsequent monotypy.

Remarks. No material of this genus is contained in the NZAC. This genus is similar to *Raffrayia* (South Africa), *Dalmina* (South Africa) and *Faronoma* (Chile), all of which have the normal head without an antennal tubercle and a simple prothorax. *Adalmus* is separated from these genera by the normal segments of antennal flagellum, the well demarkated antennal club formed by three terminal segments and abdominal tergites 4–7 subequal.

List of species:

A. velutinus Reitter, 1885: 338. Greymouth [BR].

Genus *Dalma* Sharp (Fig. 22)

Dalma Sharp, 1874c: 504. Type species: *Dalma pubescens* Sharp by monotypy.

Remarks. This genus is distinguished from other members of the subtribe by its stout and flattened body. In some species, antennal segment 9 is swollen in the male. Three known species and additional undescribed species are contained in the NZAC.

List of species:

D. gigantea Broun, 1914b: 164 <3530>. Mount Hutt, 2500 ft. & Scott's Gully [MC] (Fig. 22).

D. graniceps Broun, 1921b: 605 <4170>. Near south of Lake Rotoiti, Nelson [BR].

D. pubescens Sharp, 1874: 505 <244>. Hokitika [as Hokatika] [WD].

= *Trichonyx sordidus* L. W. Schaufuss, 1880a: 32; also 1880b: 508. NZ.

D. tuberculata Broun, 1880: 134 <245>. Near Parua, Whangarei Harbour [ND].

Genus *Dalmisus* Sharp (Fig. 23)

Dalmisus Sharp, 1886: 381. Type species: *Dalmisus batrisodes* Sharp by monotypy.

Remarks. No identified specimens of this genus are contained in the NZAC. It is characterized by the elongate first antennal segment (Sharp, 1886). Some specimens with these characteristics were collected by the authors in the South Island (Fig. 23).

List of species:

D. batrisodes Sharp, 1886: 382 <1874>. Greymouth [BR].

Genus *Eleusomatus* Raffray (Figs. 24, 25)

Eleusomatus Raffray, 1904a: 548. Type species: *Euplectus allocephalus* Broun designated by Lucas, 1920: 259.

Remarks. This is a special form of euplectine genus with a small, narrow, and more or less flattened body with a posteriorly narrowed abdomen. We have examined *Eleusomatus allocephalus*, *E. acuminatus*, *E. caudatus* and *E. rotundicollis* that are contained in the NZAC.

List of species:

E. acuminatus (Broun, 1893): 1058 (as *Euplectus*) <1891>; preoccupied, not Schaufuss, 1882

(JPH). Clevedon [AK] (Fig. 24).

E. allocephalus (Broun, 1893a): 1057 (as *Euplectus*) (1890). Clevedon? [AK]*.

E. caudatus (Broun, 1893a): 1429 (as *Euplectus*) (2482). Maketu, Hunua Range & Clevedon [AK] (Fig. 25).

E. oculatus Broun, 1921a: 516 (4036). Mistake, near Mount Algidus [MC].

E. oviceollis Broun, 1915: 305 (3725). Bell Rock, near Methven [MC].

E. subcaecus Broun, 1921a: 516 (4037). Mount Hope, Nelson [NN].

E. vidamoides Broun, 1921a: 516 (4035). Routeburn [OL].

Genus *Euglyptus* Broun (Figs. 26, 27)

Euglyptus Broun, 1893a: 1411. Type species: *Euglyptus elegans* Broun by monotypy.

Microtyrus Broun, 1893a: 1413. Type species: *Microtyrus punctatus* Broun by monotypy.

Remarks. The genus *Euglyptus* is distinct in having the compact and thick body, long and slender legs, and slender antenna with three-segmented club. *Euglyptus punctatus* was described as *Microtyrus* which was considered to be allied to *Tyrus* by Broun (1893a); however, it was synonymized and classified into Euplectini (not Trichonychini) by Raffray (1904a). *Euplectus iracundus* Broun should be placed in this genus based on the following characters that it shares with the type species as shown in Fig. 27: body narrowed anteriorly, legs long and slender; antennae long and slender, each with three-segmented club; pronotum with broad and deep longitudinal sulci and antebasal depressions.

List of species:

E. abnormis Broun, 1921b: 604 (4169). Rotoiti & Mount Slips, Nelson [BR].

E. costifer Broun, 1893b: 166 (none). Mount Pirongia [WO].

E. elegans Broun, 1893a: 1412 (2460). Maketu, Hunua Range [AK].

E. foveicollis Broun, 1912a: 403 (3196). Retaruke, near Erua [TO] (Fig. 26).

E. iracundus (Broun, 1893a): 1429 (2481); new combination. Maketu, Hunua Range [AK]* (Fig. 27).

E. longiceps Broun, 1921b: 604 (4168). Waimarino, Main Trunk Railway [TO].

E. longicornis Broun, 1912a: 404 (3197). Raurimu [TO].

E. punctatus (Broun, 1893a): 1413 (as *Microtyrus*) (2461). Maketu, Hunua Range [AK]*.

E. sublaevis Broun, 1921b: 603 (4167). Lake Rotoiti, Nelson [BR].

Genus *Euplectopsis* Raffray (Figs. 27–31, 103, 104)

Euplectopsis Raffray, 1890a: 101. Type species: *Trichonyx microcephalus* Reitter by monotypy.

Remarks. This genus is the most commonly collected euplectine genus in NZ. It is distinguished from the other allied genera by having the following combination of characters: pronotum ovoid or cordiform, with a complete median longitudinal sulcus or shallow depression; prosternum with a median carina just before fore coxae; elytra each with four basal foveae. Eighteen identified species are contained in the NZAC.

List of species:

E. antennalis Broun, 1912a: 407 (3205). Mount Ngauruhoe [TO].

E. antiquus (Broun, 1893a): 1061 (as *Euplectus*) (1898). Mokohinou Island [ND]*.

E. biimpressus Broun, 1912a: 410 (3208). Raurimu [TO].

E. blandiatus Broun, 1915: 297 (3715). Scott's Gully & Pudding Hill, near Methven [MC].

E. brevicollis (Reitter, 1880): 170 (as *Trichonyx*) (3200). Type locality is not given (Grey-

- mouth implied). [BR?].
- E. bryocharis* Broun, 1915: 296 (3714). Bell Rock, near Methven [MC].
- E. carinatus* Broun, 1912a: 407 (3204). Mount Te Aroha [BP].
- E. clavatulus* Broun, 1913: 199 (3496). Greymouth [BR].
- E. crassipes* (Broun, 1884): 238 (as *Euplectus*) (1646); also 1886: 919. Howick (Auckland). [AK].
- E. crassulus* Broun, 1921a: 506 (4022). Glenhope [NN] (Fig. 28).
- E. cuneiceps* Broun, 1915: 296 (3713). Epsom, base of Mount Eden [AK].
- E. curvipennis* Broun, 1914b: 164 (3529). Greymouth [BR].
- E. dorsalis* Broun, 1915: 299 (3717). Rakaia Gorge [MC].
- E. duplex* Broun, 1915: 295 (3712). Epsom, base of Mount Eden [AK].
- E. duplicatus* Broun, 1913: 197 (3495). Greymouth [BR].
- E. elongellus* Broun, 1915: 299 (3718). Rakaia Gorge, near Methven [MC].
- E. eminens* (Broun, 1886): 945 (as *Euplectus*) (1700). Near Howick [AK].
- E. eruensis* Broun, 1912a: 408 (3206). Erua [TO].
- E. fastigiatus* Broun, 1911a: 687 (3377). Mount Pirongia [WO].
- E. femoralis* Broun, 1914b: 163 (3528). Pudding Hill, near Methven [MC].
- E. granulatus* Broun, 1911a: 686 (3376). Erua, 2400 ft. [TO].
- E. heterarthrus* Broun, 1912a: 409 (3207). Erua, Raurimu, Makatote & Retaruke [TO] (Figs. 29, 30).
- E. impressus* Broun, 1915: 298 (3716). Rakaia Gorge, near Methven & Mount Hutt [MC].
- E. inscitus* (Broun, 1893a): 1428 (as *Euplectus*) (2480). Maketu, Hunua Range [AK].
- E. longicollis* (Reitter, 1880): 168 (as *Trichonyx*) (3198). Type locality is not given (Greymouth implied) [BR?].
- E. microcephalus* (Reitter, 1880): 169 (as *Trichonyx*) (3199). Type locality is not given (Greymouth implied) [BR?].
- E. mirificus* (Broun, 1884): 239 (as *Euplectus*) (1653); also 1886: 922. Near Howick [AK].
- E. modestus* (Broun, 1895): 78 (as *Euplectus*) (none). Invercargill [SL].
- E. monticola* (Broun, 1884): 239 (as *Euplectus*) (1648); also 1886: 920; preoccupied, not Wollaston 1864 (JPH). Waitakerei Range [AK].
- E. mucronellus* Broun, 1911a: 689 (3378). Southland [SO].
- E. nitipennis* Broun, 1915: 294 (3711). Auckland Domain [AK].
- E. obniscus* Broun, 1884: 239 (as *Euplectus*) (1650); also 1886: 921. Waitakerei Range [AK].
- E. ovithorax* (Broun, 1884): 239 (as *Euplectus*) (1649); also 1886: 920. Woodhill, near Kaipara Railway [AK].
- E. parvulus* (Broun, 1895): 77 (as *Euplectus*) (none). Maketu, Hunua Range [AK].
- E. patruelis* (Broun, 1884): 238 (as *Euplectus*) (1647); also 1886: 919. Paparoa (Howick) [AK].
- E. perpunctatus* Broun, 1915: 293 (3710). Papakura Bush, near Auckland [AK].
- E. pusillus* (Broun, 1895): 82 (as *Euplectus*) (none); preoccupied, not Denny, 1825 (JPH). Tarukenga, near Rotorua [BP].
- E. rotundicollis* (Reitter, 1880): 170 (as *Trichonyx*) (3201). Type locality is not given (Greymouth implied) [BR?].
- E. sanguineus* Broun, 1913: 196 (3494). Greymouth [BR].
- E. schizocnemis* Broun, 1912a: 406 (3203). Retaruke, near Erua [TO].
- E. terrestris* Broun, 1914b: 162 (3527). Bell Rock, near Methven [MC] (Fig. 30).

E. tibialis Broun, 1914b: 161 (3526). Rose Hill, near Methven [MC].

E. trichoniformis (Reitter, 1880): 171 (as *Trichonyx*) (3202). Type locality is not given (Greymouth implied) [BR?].

E. tumidus Broun, 1911a: 690 (3379). Erua, Waimarino & Makatote [TO] (Figs. 103, 104).

E. tumipes (Broun, 1895): 76 (as *Euplectus*) (none). Hunua Range, Drury [AK].

Genus *Kenocoelus* Broun

Kenocoelus Broun, 1911a: 700. Type species: *Kenocoelus dimorphus* Broun by monotypy.

Remarks. Specimens of this genus are not contained in the NZAC. According to Broun (1911a) it is a very distinct genus bearing the elongate pronotum with shallow antebasal and a shallow longitudinal depressions and the elytra have humeral depressions. It is also characteristic by having diagnostic sexual dimorphism of the eye which is well developed in the male and reduced in the female.

List of species:

K. dimorphus Broun, 1911a: 700 (3387). Greymouth [BR].

Genus *Paraplectus* Raffray (Fig. 32)

Philiopsis Raffray, 1898: 269. Type species: *Paraplectus punctulatus* Raffray designated by Lucas, 1920: 482.

Remarks. This genus has been known from Australia with five species. Kuschel (1990) recorded this genus from Lynfield with an undetermined species. Two specimens of this species are preserved in the Lynfield Collection of NZAC.

Genus *Patreus* Broun

Patreus Broun, 1904: 47. Type species: *Patreus lewisi* Broun by monotypy.

Remarks. The NZAC does not have specimens of this genus. In the original description by Broun (1904), this genus was thought an allied group of *Exeirarthra* of Faronitae because of the slender body and the broadened basal segment of mid tarsus (note that in *Exeirarthra* the fore tarsi have the basal segment is broadened). Raffray (1911) agreed with Broun, though this genus was reclassified to Euplectitae by Newton & Chandler (1989).

List of species:

P. lewisi Broun, 1904: 47 (none). Ida Valley [CO].

Genus *Philiopsis* Raffray (Fig. 32)

Philiopsis Raffray, 1893a: 471. Type species: *Philiopsis exigua* Raffray by monotypy.

Remarks. This is an Oriental genus that is also known from Japan. In NZAC, there are six specimens of an undetermined *Philiopsis* species collected from Lynfield, Auckland (Fig. 32). Klimaszewski *et al.* (1996) recorded this genus as an adventive taxon probably on the basis of the material in NZAC.

Genus *Placodium* Broun

Placodium Broun, 1893a: 1431. Type species: *Placodium zenarthrum* Broun by monotypy.

Remarks. Specimens of this genus were unavailable for study and are not contained in the

NZAC. According to Raffray (1904a, 1908) *Placodium* is allied to *Euglyptus* (NZ) and *Panaphantus* (Europe and Africa) by sharing well developed antennal tubercles on the frons; but, *Placodium* differs by having the antennal club formed only by the eleventh segment (formed by the last three segments in *Euglyptus* and *Panaphantus*).

List of species:

P. zenarthrum Broun, 1893a: 1431 (2484). Maketu, Hunua Range [AK].

Genus *Plectomorphus* Raffray (Figs. 33–36, 105, 106)

Plectomorphus Raffray, 1898: 265. Type species: *Euplectus spinifer* Broun by monotypy.

Remarks. This is an endemic NZ genus, is relatively common and is similar to *Microplectus* (Singapore and New Guinea) and *Sagolonus* (NZ) by having the normally developed antennal tubercles; but, is separated from the former by the anteriorly narrowed head and from the latter by having a very strong median longitudinal sulcus on the pronotum. Four species are contained in the NZAC.

List of species:

P. anguliferus Broun, 1921a: 508 (4024). Routeburn; Hollyford; Staircase, near Lake Wakatipu; Moa & Mistake Basins; & Mount Algidus, Canterbury [CO, MC, OL] (Figs. 33, 34).

P. brevicornis Broun, 1913: 201 (3498). Auckland [AK].

P. collinus Broun, 1921a: 510 (4027). Staircase, southern part of the Remarkables, 3500 ft. [CO].

P. egeus Broun, 1913: 202 (3499). Tairua [CL].

P. insignis Broun, 1921a: 509 (4026). Oakden, near Mount Algidus [MC].

P. laminifer Broun, 1915: 300 (3719). Pudding Hill, about nine miles from Methven [MC].

P. longiceps Broun, 1913: 200 (3497). Greymouth [BR].

P. longipes Broun, 1912a: 412 (3213). Greymouth [BR].

P. munroi (Broun, 1893a): 1426 (as *Euplectus*) (2477). Clevedon, Hunua Range [AK].

P. optandus Broun, 1912a: 412 (3212). Erua [TO].

P. rugiceps Broun, 1921a: 509 (4025). Glenhope [NN].

P. scitiventris Broun, 1921a: 507 (4023). Glenhope, Nelson [NN] (Figs. 105, 106).

P. spinifer (Broun, 1893a): 1426 (as *Euplectus*) (2476); preoccupied, not Casey, 1884 (JPH). Maketu, Hunua Range [AK].

P. trisulcicollis (Broun, 1880): 140 (255) (as *Euplectus*). Tairua [CL]* (Figs. 35, 36).

Genus *Sagolonus* Raffray (Figs. 37, 38)

Sagolonus Raffray, 1898: 265. Type species: *Euplectus patronus* Broun by monotypy.

Remarks. Two species of this genus, *S. impressus* and *S. patronus*, are contained in the NZAC; however, *S. patronus* specimens (Fig. 38) are difficult to distinguish from *Vidamus*, while *S. impressus* specimens (Fig. 37) are similar to *Plectomorphus*. Raffray (1904a) considered this genus as a member of a group that includes *Plectomorphus*, *Whitea*, *Dalmisus* and other genera in having the large and nearly rectangular head, the pronotum with a short and shallow median longitudinal sulcus and the elytra each with a short longitudinal sulcus.

List of species:

S. arohaensis (Broun, 1895): 79 (as *Euplectus*) (none). Mount Te Aroha [BP].

S. impressus Broun, 1910: 21 (3049). Broken River, Canterbury [MC] (Fig. 37).

S. patronus Broun, 1893a: 1060 (as *Euplectus*) (1896). Near Howick [AK] (Fig. 38).

Genus *Vidamodes* Broun

Vidamodes Broun, 1921b: 606. Type species: *Vidamodes fulvus* Broun by monotypy.

Remarks. Material of this genus is not contained in the NZAC. This genus is placed between *Vidamus* and *Plectomorphus* according to the original description by Broun (1921b) and is distinct by having the pronotum with three antebasal foveae connected by transverse sulci and a shallow median longitudinal depression separated from basimedial fovea.

List of species:

V. furvus Broun, 1921b: 606 (4171). Near Lake Rotoiti, Nelson [BR].

Genus *Vidamus* Raffray (Figs. 39–41, 107, 108)

Vidamus Raffray, 1898: 252. Type species: *Euplectus incertus* Reitter designated by Newton & Chandler, 1989: 27.

Remarks. This endemic genus is diverse and common in NZ, especially abundant in leaf litter. It is characterized by the posteriorly broadened body, the large and posterolaterally swollen head, and the moderately convex pronotum with V-shaped basal transverse sulci. Eight known species and many unidentified specimens are contained in the NZAC.

List of species:

V. armiferus Broun, 1911a: 692 (3381). Greymouth [BR].

V. brevitarsis (Broun, 1880): 143 (261) (as *Euplectus*). Tairua [CL].

V. bryophilus Broun, 1914b: 166 (3531). Rakaia Gorge, near Methven [MC].

V. calcaratus Broun, 1912a: 411 (3210). Makatote [TO] (Fig. 39).

V. cereus (Broun, 1884): 239 (as *Euplectus*) (1655); also 1886: 923. Waitakerei Range [AK].

V. clavipes Broun, 1915: 302 (3721). Mount Hutt [MC].

V. congruus Broun, 1915: 301 (3720). Scott's Gully & Pudding Hill, near Methven [MC].

V. convexus (Sharp, 1874): 509 (254) (as *Euplectus*). Auckland, [AK].

V. fossalis Broun, 1921a: 513 (4032). Greymouth [BR].

V. gracilipes Broun, 1917: 379 (3830). Mount Alfred, Heaven's Gate & Mount Earnslaw, all north of Lake Wakatipu [OL].

V. incertus (Reitter, 1880): 172 (as *Euplectus*) (3211). Type locality is not given (Greymouth implied) [BR?].

V. modestus Broun, 1913: 203 (3500). Tairua [CL].

V. muscicola Broun, 1921a: 512 (4030). Routeburn [OL].

V. nitidus Broun, 1921a: 513 (4031). Mount Algidus, Canterbury [MC].

V. ovicollis Broun, 1921a: 511 (4029). Routeburn [OL].

V. punctulatus Broun, 1915: 302 (3722). Invercargill [SL].

V. simplex Broun, 1921a: 511 (4028). Routeburn [OL].

V. sternalis Broun, 1913: 204 (3501). Greymouth [BR].

V. trochanteralis Broun, 1911a: 691 (3380). Erua & Waimarino, 2400–2700 ft. [TO] (Fig. 40, 41, 107, 108).

V. u-impressus (Broun, 1884): 239 (as *Euplectus*) (1654); also 1886: 923. Woodhill (Kaipara Railway). [AK].

V. validus (Broun, 1893a): 1056 (as *Euplectus*) (1888). Waitakerei Range, Near Howick &

near Clevedon [AK].

Genus *Whitea* Hutton (Figs. 42, 43)

Whitea Hutton, 1904: 179 (new name for *Brounia* Raffray, published by May 1904).

Brounia Raffray, 1898: 266 (preoccupied, not Sharp, 1878). Type species: *Euplectus laevifrons* Broun by monotypy.

Brouniella Raffray, 1904a: 584 (new name for *Brounia* Raffray, unnecessary, published September 1904).

Remarks. This is an endemic genus characterized by having a stout body, the head with prominent antennal tubercles, the very large and transverse pronotum, and the male fourth abdominal ventrite with a small posteromedian fringe. It is closely allied to the genus *Plectomorphus*. The monotypic species *W. laevifrons* is commonly collected in leaf litter.

List of species:

W. laevifrons (Broun, 1893a): 1425 (as *Euplectus*) (2475). Maketu, Hunua Range [AK] (Figs. 42, 43).

Genus *Zealandius* Raffray (Figs. 44, 45)

Zealandius Raffray, 1898: 272. Type species: *Euplectus obscurus* Broun by monotypy.

Remarks. This genus name given by Raffray (1898) has been misspelled elsewhere as *Zealandius*. This genus is easily distinguished from the other euplectine genera by the small body, the coarsely punctate head, and the elytra with prominent longitudinal carinae. Twelve known species are preserved in the NZAC.

List of species:

Z. asper (Broun, 1880): 140 (256) (as *Euplectus*). Tairua [CL].

Z. basalis (Broun, 1914b): 167 (as *Zealandius*) (3532). Curiosity Gully, near Methven [MC].

Z. brookesi (Broun, 1915): 303 (as *Zealandius*) (3723). Titirangi, Waitakerei Range [AK].

Z. clevedonensis (Broun, 1893a): 1058 (as *Euplectus*) (1892). Clevedon [AK]*.

Z. coxalis (Broun, 1893a): 1428 (as *Euplectus*) (2479). Maketu, Hunua Range [AK].

Z. fovealis Broun, 1913: 205 (3502). Greymouth [BR].

Z. foveiceps (Broun, 1895): 80 (as *Euplectus*) (none). Ligar's Bush, Papakura [AK].

Z. fulgens (Broun, 1911a): 696 (as *Zealandius*) (3384). Greymouth [BR].

Z. illustris (Broun, 1911a): 695 (as *Zealandius*) (3383). Mount Pirongia [WO].

Z. moerens (Broun, 1893a): 1055 (as *Euplectus*) (1886). Tairua [CL].

Z. obscurus (Broun, 1893a): 1427 (as *Euplectus*) (2478). Maketu, Hunua Range [AK]* (Fig. 45).

Z. raffrayi (Broun, 1911a): 693 (as *Zealandius*) (3382). Erua, 2400 ft. [TO] (Fig. 44).

Z. sandageri (Broun, 1893a): 1059 (as *Euplectus*) (1893). Mokohinou Island [ND]*.

Z. spinifer (Broun, 1914b): 167 (as *Zealandius*) (3533). Pudding Hill, near Methven [MC].

Z. tuberalis (Broun, 1915): 304 (as *Zealandius*) (3724). Mount Hutt & Pudding Hill [MC].

Z. usitatus (Broun, 1910): 22 (as *Zealandius*) (3050). Broken River [MC].

Subtribe TRIMIINA

Genus *Alloplectus* Broun (Fig. 46)

Alloplectus Broun, 1911a: 697. Type species: *Euplectus claviger* Broun by original description.

Remarks. The trimiine genus *Alloplectus* is endemic to NZ. It is similar to some Nearctic genera, for example *Actiastes*; however, it is distinct by having a small body, a swollen second

antennal segment, the pronotum without longitudinal sulcus or depression, and the elytron with two large basal foveae. One specimen of *A. claviger* is contained in the NZAC (Fig. 46).

List of species:

A. claviger (Broun, 1893a): 1430 (as *Euplectus*) <2483>. Maketu, Hunua Range [AK]* (Fig. 46).

A. picipennis Broun, 1911a: 698 <3385>. Howick, near Auckland [AK].

A. subcaecus Broun, 1911a: 699 <3386>. Retaruke Forest, near Erua [TO].

Tribe TROGASTRINI
Subtribe TROGASTRINA
Genus *Neosampa* Broun (Figs. 47, 48)

Neosampa Broun, 1921a: 518. Type species: *Neosampa granulata* Broun by monotypy.

Remarks. This is a distinctive myrmecophilous genus in NZ, and is similar to Asian myrmecophilous batrisines in the habitus. It is distinctive by having long and slender antenna, thickened and transverse head with eyes located posteriorly. Several specimens of *N. granulata* are contained in NZAC.

List of species:

N. granulata Broun, 1921a: 519 <4039>. Boulderstone Cleek [sic]. and Scarcliff, near Mount Algidus [MC] (Figs. 47, 48).

Supertribe GONIACERITAE
Tribe BRACHYGLUTINI
Subtribe BRACHYGLUTINA
Genus *Anabaxis* Raffray (Figs. 49, 50)

Anabaxis Raffray, 1908: 252. Type species: *Bryaxis lunatica* King designated by Newton & Chandler, 1989: 42.

Remarks. This genus is distributed in NZ and Australia. It is middle-sized brachyglytine genus characterized by the visible and demarcated third abdominal ventrite between hind coxae and the elytron with three basal foveae connected by a transverse sulcus according to the original description. Kuschel (1990) recorded two species shown below from Lynfield, Auckland, and synonymized *A. minor* Broun with *A. electrica* (King). He considered this species to be an introduced species from Australia. Two species collected from Lynfield are contained in the NZAC.

List of species:

A. electrica (King, 1863): 48. Swan River, Tasmania (Australia)* (Fig. 49).

= *Anabaxis minor* Broun, 1921a: 519 <4040>. Mount Hope, near Nelson [NN].

A. foveolata (Broun, 1880): 143 <263> (as *Euplectus*). Tairua [CL]* (Fig. 50).

= *Bryaxis euplectoides* Broun, 1893a: 1045 <1869>. Near Howick [AK].

Genus *Eupines* King (Figs. 51–61)

Eupines King, 1866: 309. Type species: *Bryaxis clavatula* King designated by Jeannel, 1952b: 84.

Byraxis Reitter, 1880a: 166 (subgenus). Type species: *Bryaxis monstrosa* Reitter by monotypy.

Remarks. The genus *Eupines* is broadly distributed in the Oriental and Australian Regions, including Japan. It is highly diverse in NZ with 44 known species. In many species, the male antenna is modified. Twenty-five described species are contained in the NZAC.

This genus is classified to two subgenera, nominotypical subgenus and *Byraxis*. The subgenus *Byraxis* is characterized by the ten-segmented antenna usually with sexual character in the male; the female has slender antenna with eleven segments. In the nominotypical subgenus, the antenna is slender, normally consisting of eleven-segments in both sexes.

Subgenus *Eupines* s. str.

List of species:

- E. (E.) calcarata* (Broun, 1886): 831 (as *Bryaxis*) (1479). Tuakau, Waikato [AK].
E. (E.) grata (Sharp, 1874): 500 (240) (as *Bryaxis*). NZ.
E. (E.) micans (Sharp, 1874): 497 (231) (as *Bryaxis*). NZ. (Figs. 53, 54).
E. (E.) nasuta (Broun, 1880): 132 (242) (as *Bryaxis*). Tairua [CL] (Fig. 61).
 = *Bryaxis naso* C. Schaufuss, 1888: 29 (new name for *nasuta* Broun, 1880, unnecessary).
E. (E.) nesobia Broun, 1914a: 92 (3401). Great Barrier Island [CL].
E. (E.) piciceps (Broun, 1880): 127 (233) (as *Bryaxis*). Tairua [CL].
E. (E.?) platynota (Broun, 1893a): 1338 (as *Bryaxis*) (2346). Mangawhare, Northern Wairoa [AK].
E. (E.) simplex Broun, 1913: 206 (3503). Tairua, Auckland [CL].
E. (E.) sternalis (Broun, 1893b): 171 (as *Bryaxis*) (none). Ligar's Bush, Papakura & Mount Pirongia, Waikato [WO] (Figs. 59, 60).

Subgenus *Byraxis* Reitter

Byraxis Reitter, 1880: 2. Type species: *Byraxis monstrosa* Reitter by monotypy.

List of species:

- E. (B.) acceptus* (Broun, 1923): 682 (as *Byraxis*) (4277). Rangiriri, Waikato [WO].
E. (B.) allocera (Broun, 1893b): 172 (as *Bryaxis*) (none). Mount Pirongia [WO].
E. (B.) anisarthra (Broun, 1914b): 169 (as *Byraxis*) (3535). Broken River [MC].
E. (B.) bisulcifrons (Broun, 1914b): 170 (as *Byraxis*) (3536). Mount Hutt, 3000 ft. [MC].
E. (B.) clemens Broun, 1921b: 607 (4172). Glenhope; near Lake Rotoiti, Nelson [BR, NN].
E. (B.) conspicua (Broun, 1893a): 1415 (as *Bryaxis*) (2464). Hunua Range, Maketu [AK].
E. (B.) costata (Broun, 1893a): 1416 (as *Byraxis*) (2465). Riccarton Bush, Christchurch [MC].
E. (B.) crassicornis (Broun, 1880): 129 (237) (as *Bryaxis*; preoccupied, not Motschulsky, 1851 (JPH)). Tairua [CL].
E. (B.) decens (Broun, 1893a): 1046 (as *Bryaxis*) (1870). Paparoa, Near Howick [AK].
E. (B.) deformis (Sharp, 1874): 499 (238) (as *Bryaxis*). New Zealand
E. (B.) dispar (Sharp, 1874): 498 (234) (as *Bryaxis*). Auckland, New Zealand [AK].
 = *Bryaxis ovalipennis* Schaufuss, L.W., 1880a: 25 (also 1880b: 501). Nov. Zealandia
E. (B.) diversa (Broun, 1893b): 174 (as *Bryaxis*) (none); preoccupied, not Raffray 1887 (JPH), Sharp 1887 (JPH). Hunua Range, Drury [AK].
E. (B.) forficulida (Broun, 1890): 232 (as *Bryaxis*); also 1893a: 1047 (1872). Neighborhood of Clevedon, southern Wairoa [AK].
E. (B.) foveatissima (Broun, 1890): 233 (as *Bryaxis*); also 1893a: 1047 (1873). Neighborhood of Clevedon, southern Wairoa [AK].
E. (B.) fraudulentata (Broun, 1886): 944 (as *Bryaxis*) (1699). Near Howick [AK].
E. (B.) glabrata (Broun, 1886): 830 (as *Bryaxis*) (1476). Woodhill, near the Kaipara railway

- [AK]*.
- E. (B.) halli* (Broun, 1921b): 608 (as *Bryaxis*) (4173). Mount St. Arnaud, Nelson [BR].
- E. (B.) hectori* (Broun, 1895): 73 (as *Bryaxis*) (none). Tarukenga, near Rotorua [BP].
- E. (B.) ignotus* (Broun, 1881): 661 (as *Bryaxis*) (1155). near Whangarei Harbour [ND].
- E. (B.) illustris* (Broun, 1914b): 168 (as *Byraxis*) (3534). Broken River, Canterbury [MC].
- E. (B.) impar* (Sharp, 1874): 500 (as *Bryaxis*) (239). Auckland [AK]* (Figs. 51, 52).
- E. (B.) impressifrons* (Broun, 1880): 128 (235) (as *Bryaxis*). Tairua [CL].
- E. (B.) lewisi* Broun, 1910: 24 (3052). Broken River, Canterbury [MC].
- E. (B.) longiceps* Raffray, 1904b: 124. NZ.
- E. (B.) monstrosa* (Reitter, 1880): 167 (as *Byraxis*) (3214). Not given (Greymouth implied). [BR?] (Figs. 55, 56).
- E. (B.) munda* (Broun, 1880): 129 (as *Bryaxis*) (236); preoccupied, not Sharp, 1874 (JPH). Tairua [CL].
- =*Bryaxis mundula* C. Schaufuss, 1888: 29 (6907; new name for *mundus* Broun, 1880).
- =*Bryaxis mundulus* Broun, 1893: 1417 (new name for *mundus* Broun, 1880); preoccupied, not Schaufuss, 1888 (JPH).
- E. (B.) munroi* (Broun, 1890): 231 (as *Bryaxis*) ; also 1893a: 1046 (1871). Neighborhood of Clevedon, southern Wairoa [AK].
- E. (B.) nemoralis* (Broun, 1886): 831 (as *Bryaxis*) (1477). Woodhill [AK].
- E. (B.) paganus* (Broun, 1881): 660 (as *Bryaxis*) (1154). Near Whangarei Harbour [ND].
- E. platyarthra* (Broun, 1893): 1417 (as *Bryaxis*) (new name for *Bryaxis clavata* Broun, 1880). [AK,CL].
- =*Bryaxis clavatus* Broun, 1880: 126 (232); preoccupied, not Motschulsky, 1851 (JPH), Peyron, 1858 (JPH), Brendel 1865 (JPH). Tairua.
- E. (B.) rhyssarthra* (Broun, 1912a): 413 (as *Byraxis*) (3215). Mount Pirongia [WO].
- E. (B.) rudicornis* Broun, 1882: 288 (1347); also 1886: 759. Wellington? [WN] (Figs. 57, 58).
- E. (B.) sanguinea* (Broun, 1880): 132 (243) (as *Bryaxis*; not preoccupied by Leach, 1817 (unavailable), Linnaeus, 1790 (unavailable?)). Tairua [CL].
- =*Bryaxis vae* Schaufuss, C., 1888: 34 (new name for *sanguinea* Broun, 1880 (unnecessary)).
- =*Bryaxis fulvitaris* Broun, 1893: 1418 (new name for *sanguinea* Broun, 1880 (unnecessary)).
- E. (B.) setifera* (Broun, 1893b): 173 (as *Bryaxis*) (none). Mount Pirongia [WO].
- E. (B.) sylvicola* (Broun, 1884): 238 (as *Bryaxis*); also 1886: 919 (1645). Papanoa bush, Near Howick [AK].

Genus *Eupinogitus* Broun (Figs. 62, 109, 110)

Eupinogitus Broun, 1921: 517. Type species: *Eupinogitus sulcipennis* Broun by monotypy.

Remarks. This monotypic endemic genus resembles the Holarctic genus *Rybaxis* in having the pronotum with strong antebasal transverse sulci connecting the antebasal foveae; but, is different in the frons that lacks the anteromedian fovea (usually present in *Rybaxis*). Many specimens are contained in the NZAC.

List of species:

- E. sulcipennis* Broun, 1921a: 518 (4038). Staircase, southern end of the Remarkables, 3500 ft. [CO] (Figs. 62, 109, 110).

=*Eupinogitus picescens* Broun, 1921a: 518 (4038, var.). Staircase, southern end of the Remarkables, 3500 ft. [implied].

Genus *Eupinolus* Oke

Eupinolus Oke, 1928: 11. Type species: *Eupinolus leana* Raffray designated by Lucas, 1920.

Remarks. This genus is common in NZ and shared with Australia. It is closely allied to *Eupines* by having a small and compact body, and the smooth surface of the frons lacking a median fovea: it is diagnostic by having the pronotum with three subequal antebasal foveae and the elytron with two basal foveae or depressions and an adsutural sulcus. Its two species were originally described as *Bryaxis* species, but were later moved to *Eupines* by Chandler (2000). Both species are contained in the NZAC.

List of species:

E. altulus (Broun, 1880): 131 (241) (as *Bryaxis*). Near Whangarei Harbour [ND]*.

E. punctatus (Broun, 1886): 831 (as *Bryaxis*) (1478). Paparoa, near Howick [AK]*.

Genus *Gastrobothrus* Broun (Figs. 63, 64)

Gastrobothrus Broun, 1882: 287; 1886: 758. Type species: *Bryaxis abdominalis* Broun by monotypy.

Remarks. This is a relatively large-bodied and an endemic brachyglutine genus containing two species. It is similar to *Physobryaxis* by having the very robust body and the strongly narrowed elytra at the base; but, is distinct in the robust and subglobose pronotum that lacks foveae, depressions nor sulci. The two species are contained in the NZAC, and a special type of large excavation is present on the abdominal ventrites 5–7 in the male of *G. abdominalis* (Fig. 63).

List of species:

G. abdominalis (Broun, 1880): 125 (230) (as *Bryaxis*; preoccupied, not Aubé, 1833 (JPH); not now congeneric). Tairua [CL]* (Fig. 63).

G. sharpi (Broun, 1880): 124 (229) (as *Bryaxis*). Tairua [CL]* (Fig. 64).

Genus *Physobryaxis* Hetschko (Figs. 65, 66)

Physobryaxis Hetschko, 1913: 182 (new name for *Physa* Raffray). Type species: *Bryaxis inflata* Sharp by monotypy.

Physa Raffray, 1890a: 122 (preoccupied, not Draparnaud, 1801).

Achiraffraya Navas, 1925: 29 (new name for *Physa*, unnecessary).

Remarks. The endemic genus *Physobryaxis* was previously synonymized with *Gastrobothrus* by Newton & Chandler (1989) though we separate it as an independent genus after Kuschel (1990) and the later authors due to the presence of a median antebasal fovea on the pronotum connected with the lateral foveae by a pair of antebasal transverse sulci, a character not present in *Gastrobothrus*.

List of species:

P. inflata (Sharp, 1874): 497 (as *Bryaxis/Physobryaxis*) (228). Auckland [AK]* (Figs. 65, 66).

Genus *Simkinion* Park et Pearce (Fig. 68)

Simkinion Park et Pearce, 1962: 251. Type species: *Simkinion prelatum* Park et Pearce by original designation.

Remarks. This is a very distinct and endemic brachyglutine genus bearing a robust body,

and having long antenna with strongly thickened terminal segments, a subglobose prothorax without distinct sulcus or fovea, and long and slender legs. The systematic position is unknown. Type material of *S. prelaticum* are deposited in the NZAC (a female paratype is shown in Fig. 68).

List of species:

- S. bimanum* Park et Pearce, 1962: 255. Dobbie's Parl, Whangarei, North Island, New Zealand [ND].
- S. prelaticum* Park et Pearce, 1962: 252. Near Russell, North Island, New Zealand [ND] (female paratype is shown in Fig. 68).

Genus *Startes* Broun

Startes Broun, 1886: 829. Type species: *Startes sculptulata* Broun by monotypy.

Remarks. Two species of this Australasian genus are known from NZ (Chandler, 2000). This genus is similar to *Anabaxis* by sharing with it the robust and subglobose prothorax without antebasal transverse sulci, trifoveate elytra, and the fourth abdominal tergite with a pair of short basimedial carinae. *Startes* differs from *Anabaxis* by the smooth frons that lacks a pair of postantennal pits on the antennal bases (present in *Anabaxis*, see Chandler, 2000). The NZAC does not contain specimens of this species.

List of species:

- S. foveata* Broun, 1893b: 170 (none). Hunua Range [AK].
- S. sculpturata* Broun, 1886: 830 (1475). Waitakerei Range [AK]*.

Supertribe PSELAPHITAE Tribe PSELAPHINI

Genus *Pselaphogenius* Reitter (Figs. 69–72, 111, 112)

Pselaphogenius Reitter, 1910: 155. Type species: *Pselaphus quadricostatus* Reitter designated by Jeannel, 1950: 389.

Pselaphodinus Jeannel, 1950: 389. Type species: *Pselaphus longipalpis* Kiesenwetter designated by original description.

Remarks. The genus *Pselaphogenius* is known from Europe, East Asia (including Japan), Australia, and NZ. It is defined by having an elongate head without scales on the postgenae, the pronotum without antebasal sulcus, and the elytron with two basal foveae and a broad longitudinal carina between the basal foveae. Chandler (2000) commented that approximately half of the species of "*Pselaphus*" from New Zealand should be placed in this genus, and three species shown below were transferred from *Pselaphus* in the on-line database of Newton & Thayer (2003). The species occurring in NZ are different from typical *Pselaphogenius* species known from the Palearctic Region by the elytron with only inner basal fovea and indistinct longitudinal carina. This character is shared not with *Pselaphogenius*, but with the European genus *Pselaphostomus* Reitter (= *Pselaphopsis* Jeannel).

List of species:

- P. citimus* (Broun, 1893a): 1043 (as *Pselaphus*) (1867). Howick [AK]* (Figs. 69, 70).
- P. delicatus* (Broun, 1886): 943 (as *Pselaphus*) (1697). Near Howick [AK]* (Figs. 71, 72, 111, 112).
- P. ventralis* (Broun, 1895): 72 (as *Pselaphus*) (none). Mount Pirongia [WO].

Genus *Pselaphophus* Raffray (Figs. 73, 74)

Pselaphophus Raffray, 1890a: 139. Type species: *Bryaxis atriventris* Westwood designated by Lucas, 1920: 544.

Remarks. The genus *Pselaphophus* is known from Australia, and the type species, *P. atriventris* was recorded from NZ as an introduced species (Martin, 1983, Klimaszewski *et al.*, 1996, Chandler, 2000). It is easily distinguished from the allied genera by having the non-pedunculate fourth segment of the maxillary palpus. *Pselaphophus atriventris* in NZ is concerned to be introduced after Chandler (2000). More than forty specimens of this species are preserved in NZAC, some of which were collected from Lynfield, Auckland.

List of species:

P. atriventris (Westwood, 1856): 270. Melbourne, Nova Hollandia (Australia) [AK] (Figs. 73, 74).

Genus *Pselaphotheseus* Park (Figs. 81–84)

Pselaphotheseus Park, 1964: 391. Type species: *Pselaphotheseus hippolytae* Park by original designation.

Remarks. This is a highly specialized genus of Pselaphini presently known only from sub-antarctic Campbell Island with two species. It is distinct by having a short maxillary palpus with a simple fusiform fourth segment, and an ovoid head with a large vertexal concavity and posterolaterally expanded postgenae. Type material of both species is deposited in the NZAC.

List of species:

P. hippolytae Park, 1964: 392. Campbell Is. [CA] (Figs. 81, 82).

P. ihupuku Carlton et Leschen, 2001: 387. Campbell Is. [CA] (Figs. 83, 84).

Genus *Pselaphus* Herbst (Figs. 75–80)

Pselaphus Herbst, 1792: 106. Type species: *Pselaphus heisei* Herbst designated by Shuckard, 1839.

Remarks. The genus *Pselaphus* is known from all over the world, is highly variable and should not be recognized as a monophyletic group. Even the NZ species known as *Pselaphus* contains various forms that are most probably separate genera. For example, *P. pauper* is similar to typical *Pselaphaulax* known from the Palearctic Region in having the pronotum with antebasal sulcus. The *Pselaphus* species require careful and detailed study for correct classification and identification.

List of species:

P. caecus Broun, 1886: 943 (1696). Near Howick [AK].

P. cavelli Broun, 1893a: 1414 (2462). Caplestone [BR].

P. cavidorsis Broun, 1923: 681 (4276). Oruru, North Auckland [ND].

P. dulcis Broun, 1881: 660 (1153). Pataua, north of Whangarei Harbour [ND]* (Fig. 75).

P. fuscopilus Broun, 1886: 944 (1698). Near Howick [AK].

P. meliusculus Broun, 1893: 1044 (1868). Mount Maungatua, Otago [DN].

P. oviceps Broun, 1917: 380 (3832). Routeburn & Hollyford, north of Lake Wakatipu, 1000–3500 ft. [OL].

P. pauper Sharp, 1874: 492 (226). Hokitika [WD]* (Fig. 76).

P. pilifrons Broun, 1914a: 93 (3402). Tisbury, Invercargill [SL].

P. pilistriatus Broun, 1880: 123 (227). Near Whangarei Harbour [ND].

P. sulcicollis Broun, 1893a: 1415 (2463); preoccupied, not Reichenbach, 1816 (JPH). Mount

Pirongia [WO].

P. trifoveatus Broun, 1914b: 172 (3538). McClelland's Bush & Rakaia Gorge, near Methven [MC] (Fig. 77).

P. urquharti Broun, 1917: 379 (3831). Oakden, near Mount Algidus [MC].

Tribe TYRINI

Subtribe TYRINA

Genus *Agatyrus* Broun (Figs. 85, 86)

Agatyrus Broun, 1917: 382. Type species: *Agatyrus fulvihirtus* Broun by monotypy.

Remarks. This endemic and monotypic genus is characterized by the robust and stout body and legs. In the male of *A. fulvihirtus*, the metaventrite bears a transverse projection just in front of the hind coxae, and the abdomen is strongly excavated on the ventromedian side throughout its entire length. More than ten specimens of this species are deposited in NZAC.

List of species:

A. fulvihirtus Broun, 1917: 383 (3834). Gordon's Knob, Nelson [NN] (Figs. 85, 86).

Genus *Gerallus* Sharp (Fig. 87)

Gerallus Sharp, 1874: 493. Type species: *Gerallus nanus* Sharp by monotypy.

This genus is known from Australia and New Guinea (Chandler 2002) and was recorded from NZ by Kuschel (1990) from Lynfield, Auckland, represented by the introduced species, *G. punctipennis* Schaufuss. Several specimens were examined in the NZAC.

List of species:

G. punctipennis L. W. Schaufuss, 1880b: 509. Eastern Creek et Nov. S. Wales, Nov. Holl. (Australia) [AK]* (Fig. 87).

Genus *Hamotulus* Schaufuss (Figs. 88–92)

Hamotulus Schaufuss, 1887: 108. Type species: *Bryaxis chamaeleon* Schaufuss by monotypy.

Tychotyrus Broun, 1893b: 168. Type species: *Tychotyrus sternalis* Broun designated by Newton & Chandler, 1989.

Remarks. The genus *Hamotulus* is known from NZ and Australia. It is characteristic by having the pronotum smooth and shiny with three large foveae connected by antebasal transverse sulci. In many NZ species, the male has a short spine near the apex of hind tibia. It had been placed in the subtribe Hamotina (preoccupied by *Somatipionina* Jeannel, 1949 after Chandler (2000)) in Newton & Chandler (1989); however, it was moved to Tyrina by Chandler (2000) probably because it has the simple fourth segment in the maxillary palpus (longitudinally carinated or sulcate in *Somatipionina*). Eight described species are contained in the NZAC.

List of species:

H. angulipes Broun, 1914b: 171 (3537). Curiosity Gully, Rakaia Gorge, near Methven [MC].

H. armatus (Broun, 1893a): 1043 (as *Tyrus*) (1866). Near Howick [AK] (Fig. 88).

H. cornutus Broun, 1915: 307 (3728). Mount Hutt [MC] (Fig. 89).

H. curvipes (Broun, 1893b): 170 (as *Tychotyrus*) (none). Hunua Range [AK].

H. frontalis Broun, 1914a: 94 (3403). Broken River, Canterbury [MC].

H. fuscipalpis Broun, 1915: 306 (3727). Mount Hutt [MC].

H. mutandus (Sharp, 1874): 487 (225). Auckland, New Zealand [AK]*.

H. robustus Broun, 1915: 305 (3726). Rose Hill, near Methven [MC] (Figs. 90, 91).

H. spinipes (Broun, 1893a): 1411 (as *Tyrus*) (2459). Riccarton Bush, Christchurch [MC] (Fig. 92).

H. sternalis (Broun, 1893b): 168 (as *Tychotyrus*) (none). Hunua Range, three different localities [unnamed]. [AK].

Genus *Phormiobius* Broun (Figs. 93, 94)

Phormiobius Broun, 1917: 381. Type species: *Phormiobius halli* Broun by monotypy.

Remarks. This monotypic genus is known only from NZ. It is morphologically distinct and can be differentiated from other tyrine genera by the strongly shortened and basally narrowed elytra and the very large abdomen with the large sixth segment. Many specimens are contained in the NZAC.

List of species:

P. halli Broun, 1917: 382 (3833). Belgrove, near Nelson [NN] (Figs. 93, 94).

Genus *Plesiotyrus* Broun

Plesiotyrus Broun, 1914a: 94. Type species: *Tyrus crassipes* Broun by original designation.

Remarks. The NZAC does not contain specimens of this monotypic genus, but according to the original description (Broun, 1914a), it is closely allied to *Tyrogetus*, but separated from it by the reduced maxillary palpus, the larger eyes and the thickened legs, and different shape of the antenna.

List of species:

P. crassipes (Broun, 1893a): 1337 (as *Tyrus*) (2345). Moeraki [DN].

Genus *Tyrogetus* Broun (Fig. 95)

Tyrogetus Broun, 1893b: 165. Type species: *Tyrogetus optandus* Broun by monotypy.

Remarks. This endemic genus is characterized by the large and elongate maxillary palpus, and the predominantly large fourth abdominal tergite with a large and setose basimedial depression. Several specimens of *T. palpalis* are contained in the NZAC.

List of species:

T. optandus Broun, 1893b: 166 (none). Mount Pirongia [WO].

T. palpalis Broun, 1910: 23 (3051). Waimarino [TO] (Fig. 95).

Genus *Zeatyryus* Sharp (Fig. 96)

Zeatyryus Sharp, 1881: 48. Type species: *Zeatyryus lawsoni* Sharp by monotypy.

Palmipalpus Broun, 1881: 662. Type species: *Palmipalpus montivagus* Broun by monotypy.

Remarks. This endemic and monotypic genus is very distinctive and can be distinguished from other tyrine genera by the presence of a large and thickened maxillary palpus with a strongly swollen fourth segment, the subglobose and smooth pronotum without fovea or sulcus, the convex elytron with a basal fovea, and the long and stout legs. Several specimens of the type species are contained in the NZAC.

List of species:

Z. lawsoni Sharp, 1881: 48. Auckland [AK]* (Fig. 96).

=*Palmipalpus montivagus* Broun, 1881: 662 (1156). Mount Manaia, Whangarei Harbour

[ND].

Broun's "Syntypes" in the DEI

One of us (Nomura) visited DEI in May 2005 and examined pselaphine material from NZ that were labeled as syntypes. Type material studied by Broun are deposited in the Natural History Museum, London (NHML) as well as NZAC, but some may have been traded or exchanged with other collections (like the DEI) and care is required for correct lectotypification. True Broun types can be recognized by a label written in Broun's handwriting with the type locality as a single word followed by a period (some specimens may have his species number also followed by a period) and easily matched with the locality or localities listed in the original descriptions. The "types" in the DEI have labels that are not in Broun's handwriting and have been carelessly relabeled and are no doubt part of an exchange or a gift. The red "syntypus" label pinned to the specimens were probably placed there by a DEI worker, because these labels are the same style as those pinned to other type material from different geographic areas contained in the DEI. It is unclear if the DEI specimens were used by Broun for his original descriptions, though they match type localities cited in his descriptions.

The DEI specimens are listed below and illustrations of the labels and specimens are provided in Figs. 97–112. Specimens were previously listed by Gaedike (1984) as type specimens. In the list, *Bryaxis sanguineus* was not examined and the data we list were cited from Gaedike (1984).

Bryaxis sanguineus Broun, 1880 (*Eupines* in the present study): 3 syntypes, Tairua (not examined).

Eupinogitus sulcipennis Broun, 1921: 3 syntypes (cotypes) Staircase, 3,500 ft., Otago (Figs. 109, 110).

Euplectopsis tumidus Broun, 1911: 3 syntypes (cotypes), Erua, King Country (Figs. 103–104).

Plectomorphus scitiventris Broun, 1921: 3 syntypes, Glenhope, Nelson (Figs. 105, 106).

Pselaphus delicatus Broun, 1886 (*Pselaphogenius* in the present study): 4 syntypes (cotypes), Howick (Figs. 111, 112).

Sagola bilobata Broun, 1921: 3 syntypes (cotypes), Mt. Dick, Otago (Figs. 97, 98).

Sagola dickensis Broun, 1917: 1 syntype (paratype), Mt. Dick, Otago (Figs. 99–100).

Sagola halli Broun, 1914: 3 syntypes (cotypes), Methven, Canterbury (Figs. 101–102).

Vidamus trochanteralis Broun, 1911: 2 syntypes (cotypes), Erua, King Country (Figs. 107, 108).

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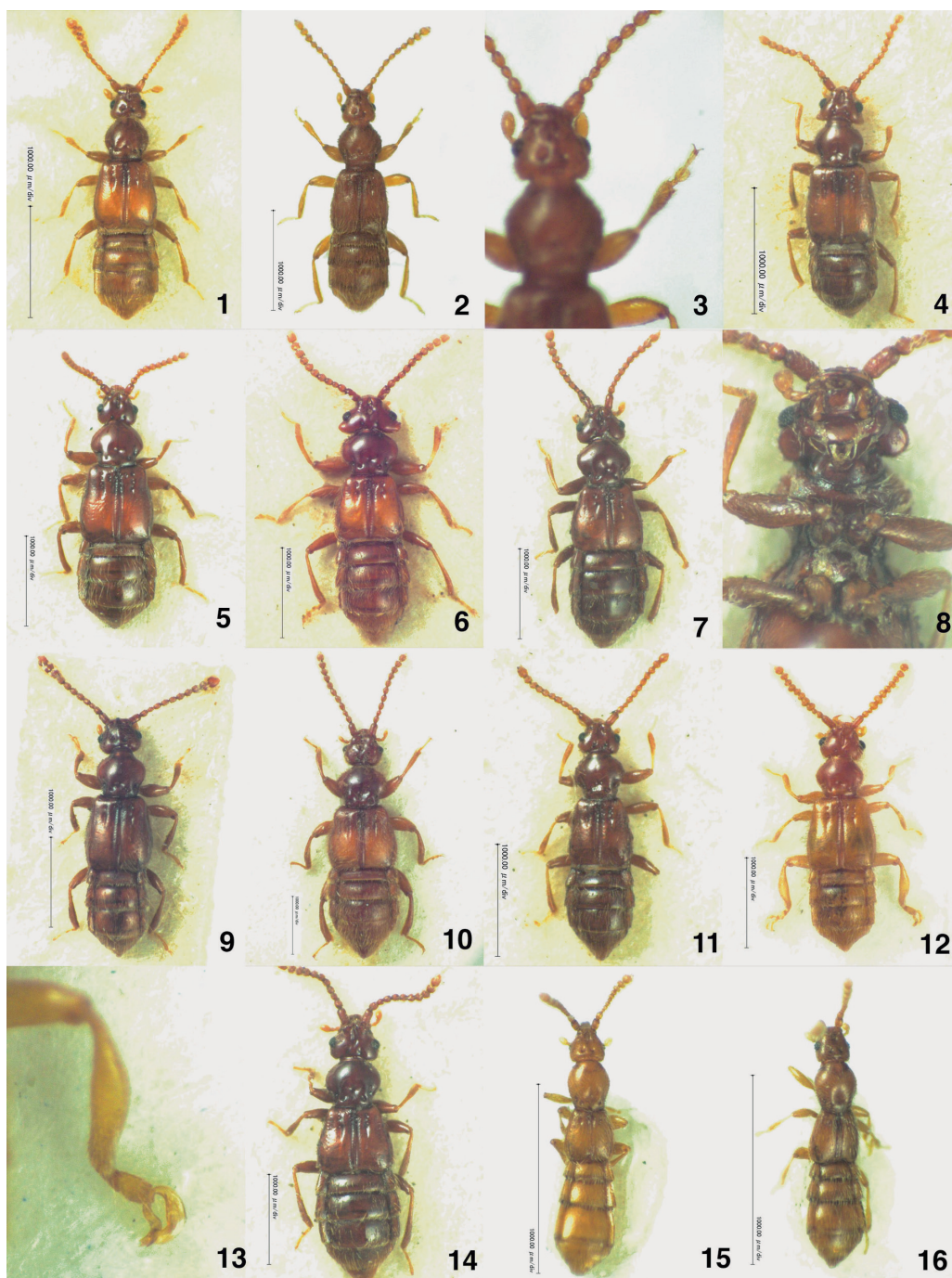


Plate 1 (Figs. 1–16). 1. *Exeirarthra enigma* Broun, female?; 2. *E. enigma*?, male; 3. ditto, fore leg enlarged; 4. *Sagola bilobata* Broun, male; 5. *S. dickensis* Broun, male paratype; 6. *S. eminentis* Broun, male; 7. *S. halli* Broun, male; 8. ditto in ventral side, enlarged; 9. *S. lineata* Broun, male; 10. *S. major* Sharp, male; 11. *S. minuscula* Broun, male; 12. *S. monstrosa* Reitter, male; 13. ditto, right hind leg enlarged; 14. *S. robusta* Broun “var.”, male; 15. *Stenosagola* sp., female; 16. ditto, male.

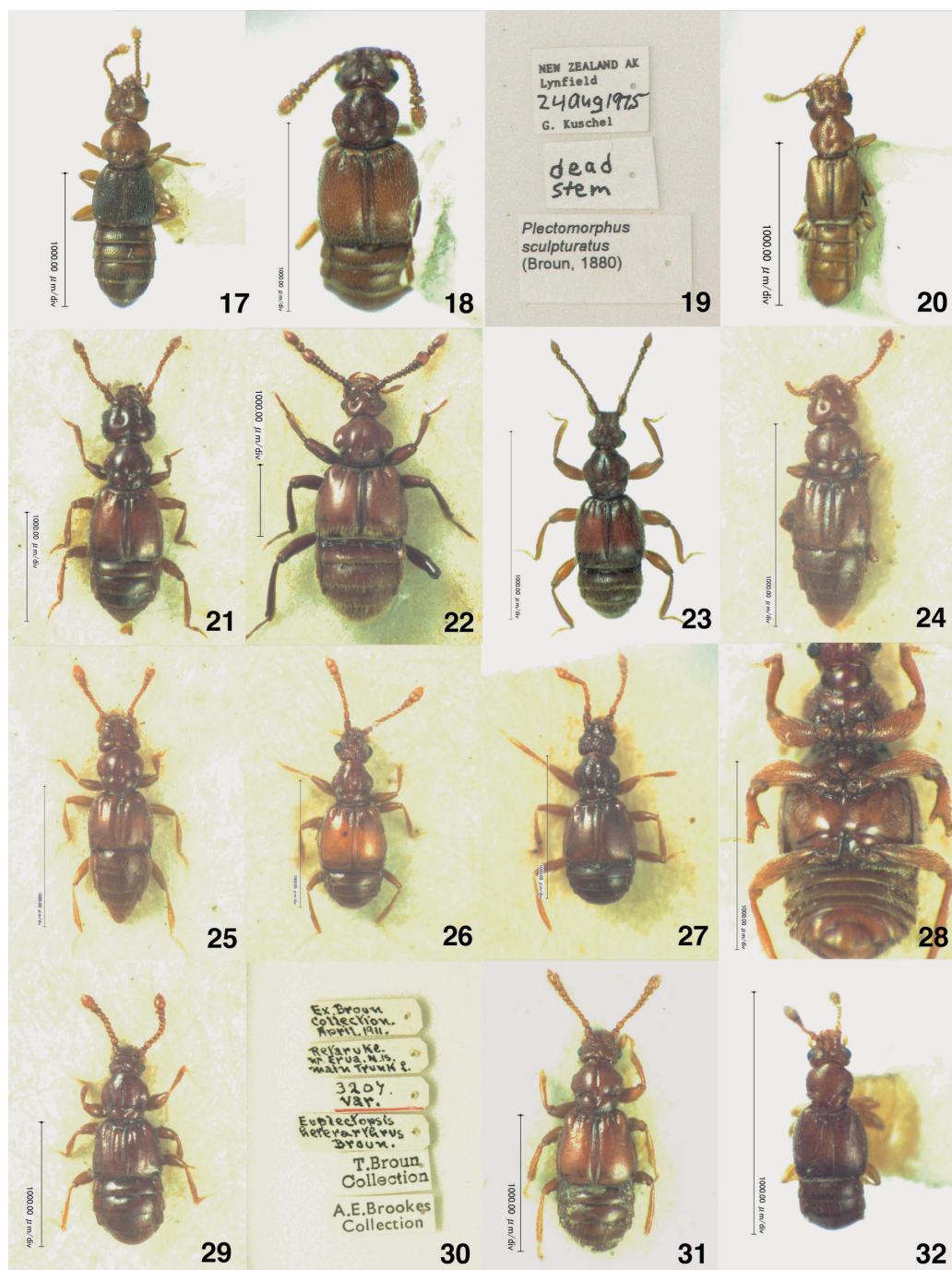


Plate 2 (Figs. 17–32). 17. *Euplectus?* sp., female; 18. *E? sculpturatus* Broun, male?; 19. ditto, labels; 20. *Leptoplectus* sp., male; 21. *Macroplectus spinipes* (Broun), male; 22. *Dalma gigantea* Broun, male; 23. *Dalmisus batrisodes* Sharp?, male; 24. *Eleusomatus acuminatus* (Broun), male; 25. *E. caudatus* (Broun), male; 26. *Euglyptus foveicollis* Broun, male; 27. *E. iracundus* Broun (from *Euplectus*, see remarks), male; 28. *Euplectopsis crassulus* Broun, male in ventral view; 29. *E. heterarthrus* Broun, male; 30. ditto, labels; 31. *E. terrestris* Broun, male; 32. *Philiopsis?* sp., male.

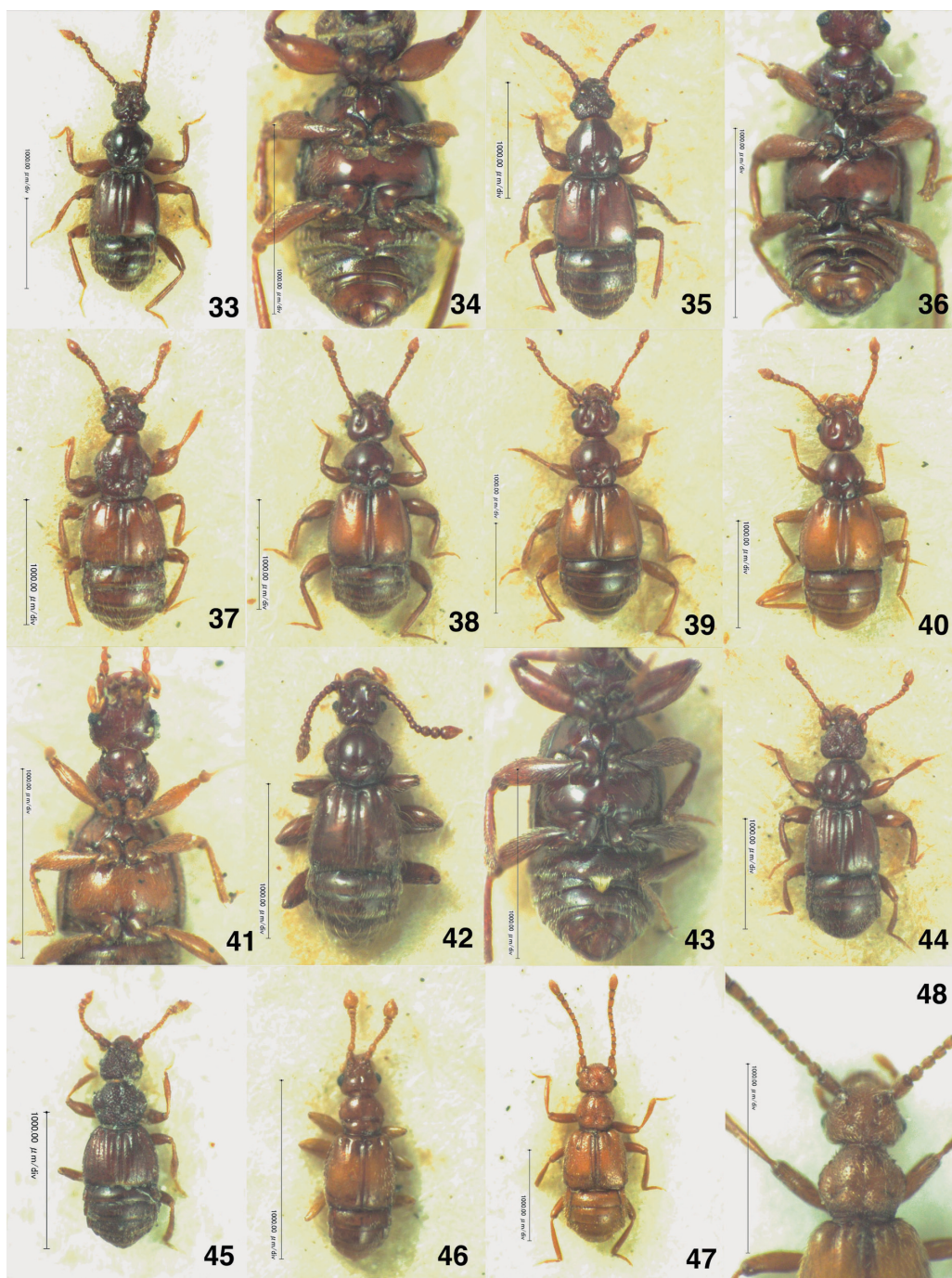


Plate 3 (Figs. 33–48). 33. *Plectomorphus anguliferus* Broun, male; 34. ditto, in ventral view; 35. *P. trisulcicollis* (Broun), male; 36. ditto, in ventral view; 37. *Sagolonus impressus* Broun, male; 38. *S. patronus* Broun “var.”, male; 39. *Vidamus calcaratus* Broun, male; 40. *V. trochanteralis* Broun, male; 41. ditto, in ventral view; 42. *Whitea laevifrons* (Broun), male; 43. ditto, in ventral view; 44. *Zelandius raffrayi* (Broun), male; 45. *Z. obscurus* (Broun), female; 46. *Allopectus claviger* (Broun), female?; 47. *Neosampa granulata* Broun, male; 48. ditto, head to elytral base enlarged.

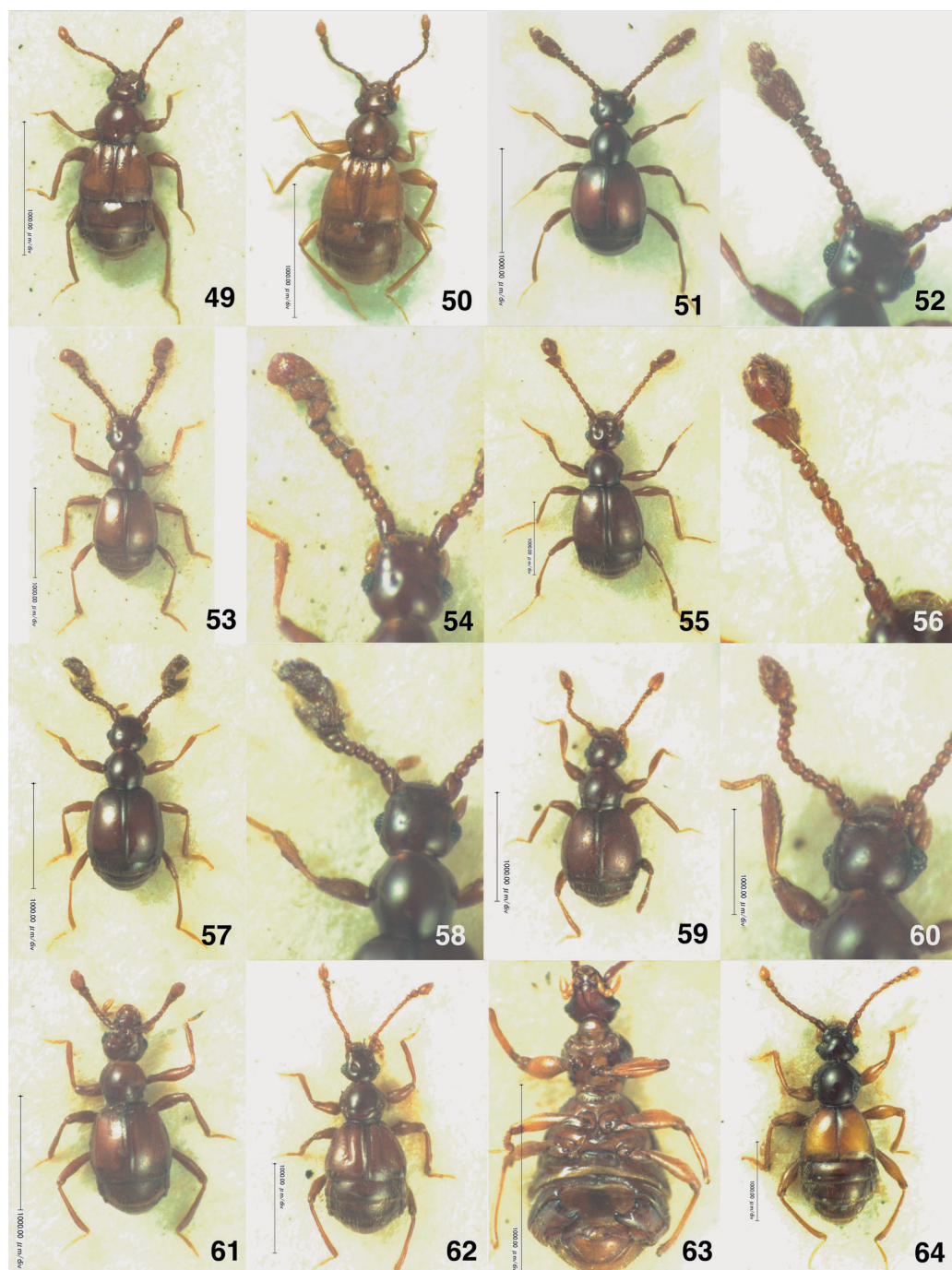


Plate 4 (Figs. 49–64). 49. *Anabaxis electrica* (King), female; 50. *A. foveolata* (Broun), female; 51. *Eupines impar* (Sharp), male; 52. ditto, left antenna enlarged; 53. *E. micans* (Sharp), male; 54. ditto, left antenna enlarged; 55. *E. monstrosa* (Reitter), male; 56. ditto, left antenna enlarged; 57. *E. rudicornis* Broun, male; 58. ditto, left antenna enlarged; 59. *E. sternalis* (Broun), male; 60. ditto, left antenna enlarged; 61. *E. nasuta* (Broun), male; 62. *Eupinogitus sulcipennis* (Broun), female?; 63. *Gastrobothrus abdominalis* (Broun), male in ventral view; 64. *G. sharpi* (Broun), male.

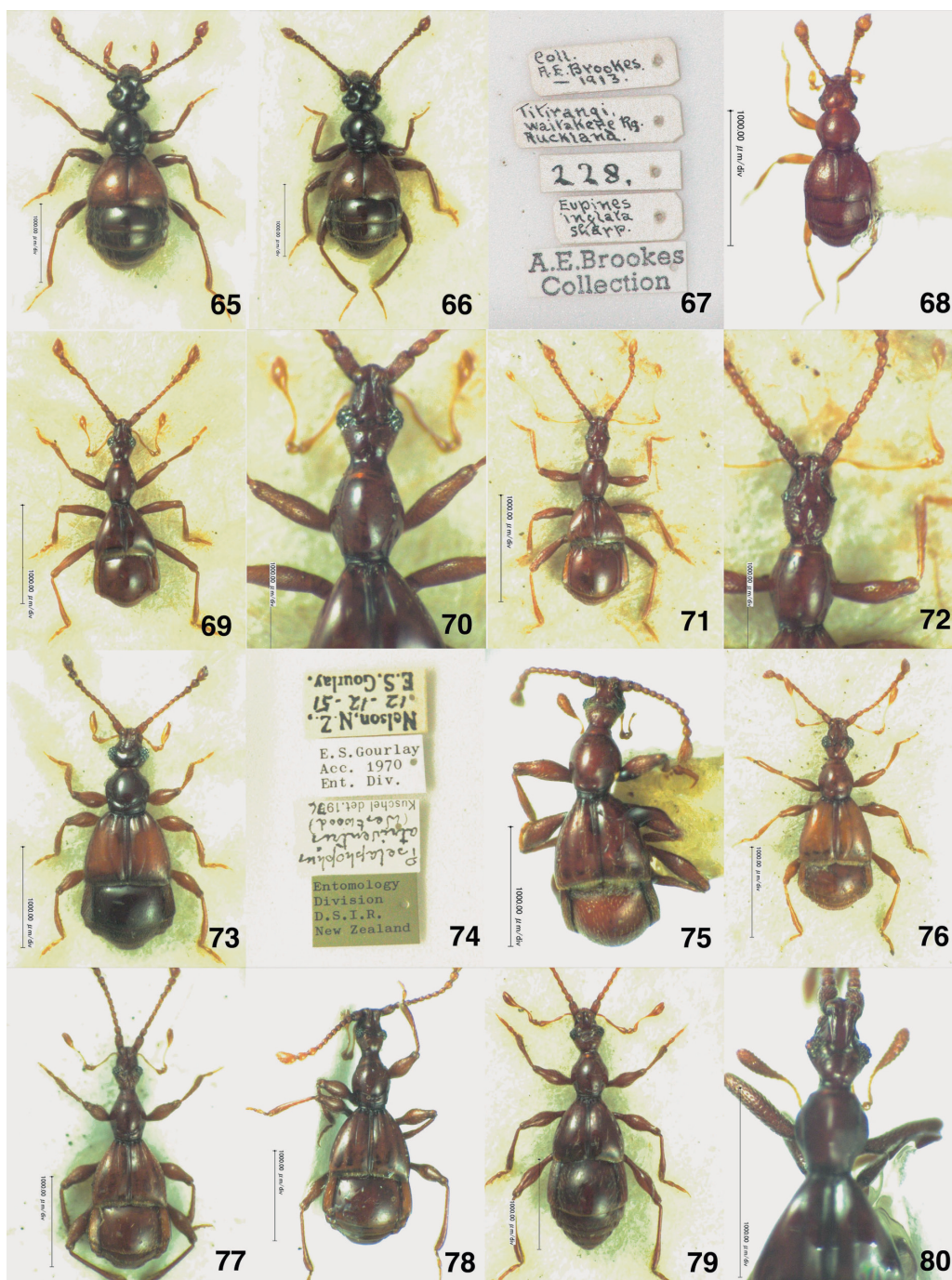


Plate 5 (Figs. 65–80). 65. *Physobryaxis inflata* (Sharp), female; 66. ditto, male; 68. *Simkinion prelaticum* Park et Pearce, female paratype; 69. *Pselaphogenius? citimus* (Broun), sex unknown; 70. ditto, head to elytral base enlarged; 71. *P?. delicatus* (Broun), sex unknown; 72. ditto, head and pronotum enlarged; 73. *Pselaphophus atriventris* (Westwood), female?; 74. ditto, labels; 75. *Pselaphus? dulcis* Broun, sex unknown; 76. *P?. pauper* Sharp, sex unknown; 77. *P?. trifoveatus* Broun, male; 78. *P?. sp. 1*, male; 79. *P?. sp. 2*, sex unknown; 80. *P?. sp. 3*, male.

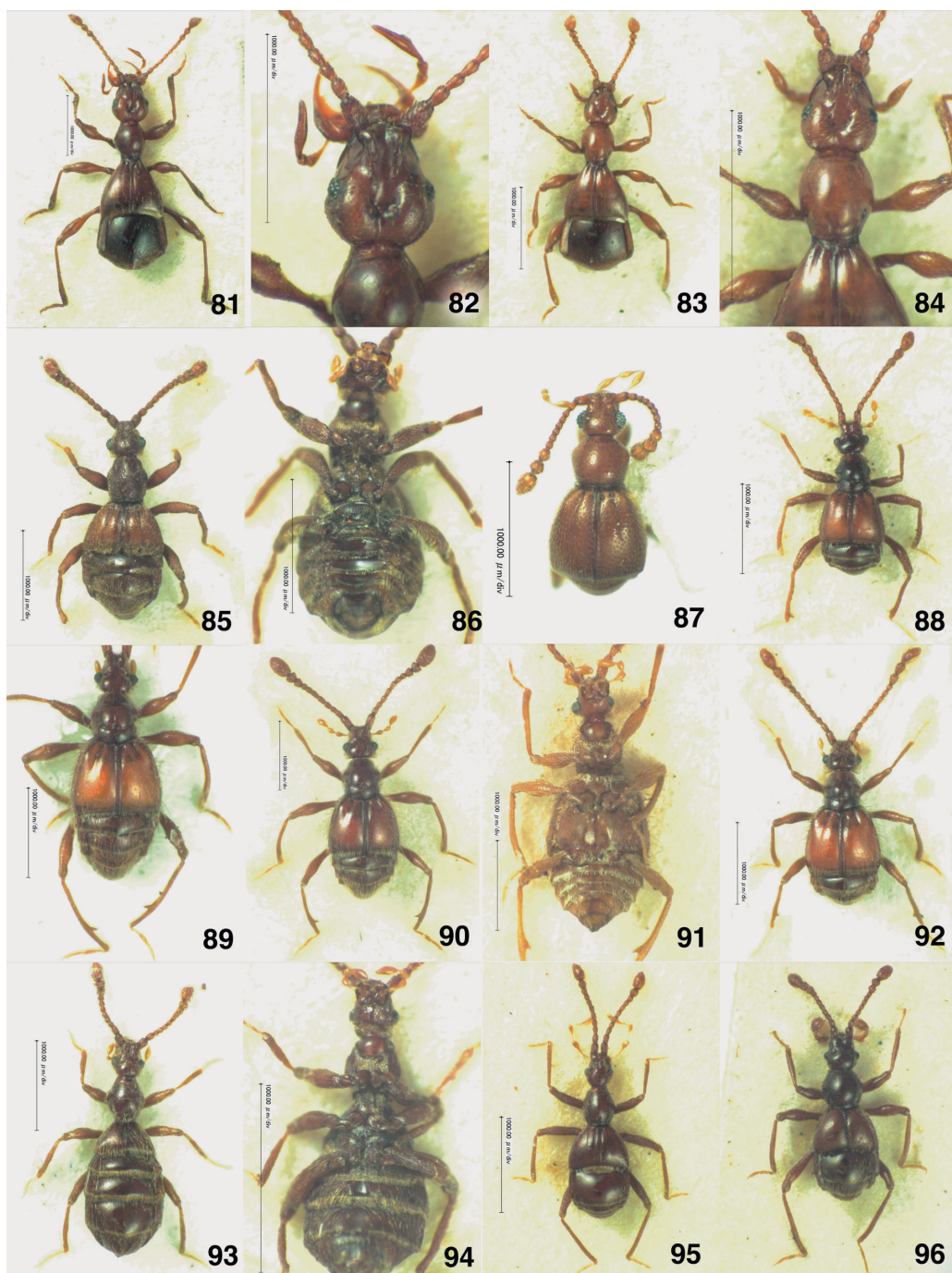


Plate 6 (Figs. 81–96). 81. *Pselaphotheseus hippolytae* Park, male?; 82. ditto, head enlarged; 83. *P. ihupuku* Carlton et Leschen, male paratype; 84. ditto, head to elytral base enlarged; 85. *Agatyryus fulvihirtus* Broun, male; 86. ditto, in ventral view; 87. *Gerallus punctipennis* L. W. Schaufuss, male?; 88. *Hamotulus armatus* (Broun), male; 89. *H. cornutus* Broun, male; 90. *H. robustus* Broun, male; 91. ditto, in ventral view; 92. *H. spinipes* (Broun), male; 93. *Phormiobius halli* Broun, male; 94. ditto, in ventral view; 95. *Tyrogetus palpalis* Broun, female; 96. *Zeatyryus lawsoni* Sharp, male.



Plate 7 (Figs. 97–112). 97. *Sagola bilobatus* Broun, “syntype”; 98. ditto, labels; 99. *S. dickensis* Broun, “syntype”; 100. ditto, labels; 101. *S. halli* Broun, “syntype”; 102. ditto, labels; 103. *S. tumidus* Broun, “syntype”; 104. ditto, labels; 105. *Plectomorpha scitiventris* Broun, “syntype”; 106. ditto, labels; 107. *Vidamus trochanteralis* Broun, “syntype”; 108. ditto, labels; 109. *Eupinogitus sulcipennis* Broun, “syntype”; 110. ditto, labels; 111. *Pselaphus delicatus* Broun (*Pselaphogenius*), “syntype”; 112. ditto, labels

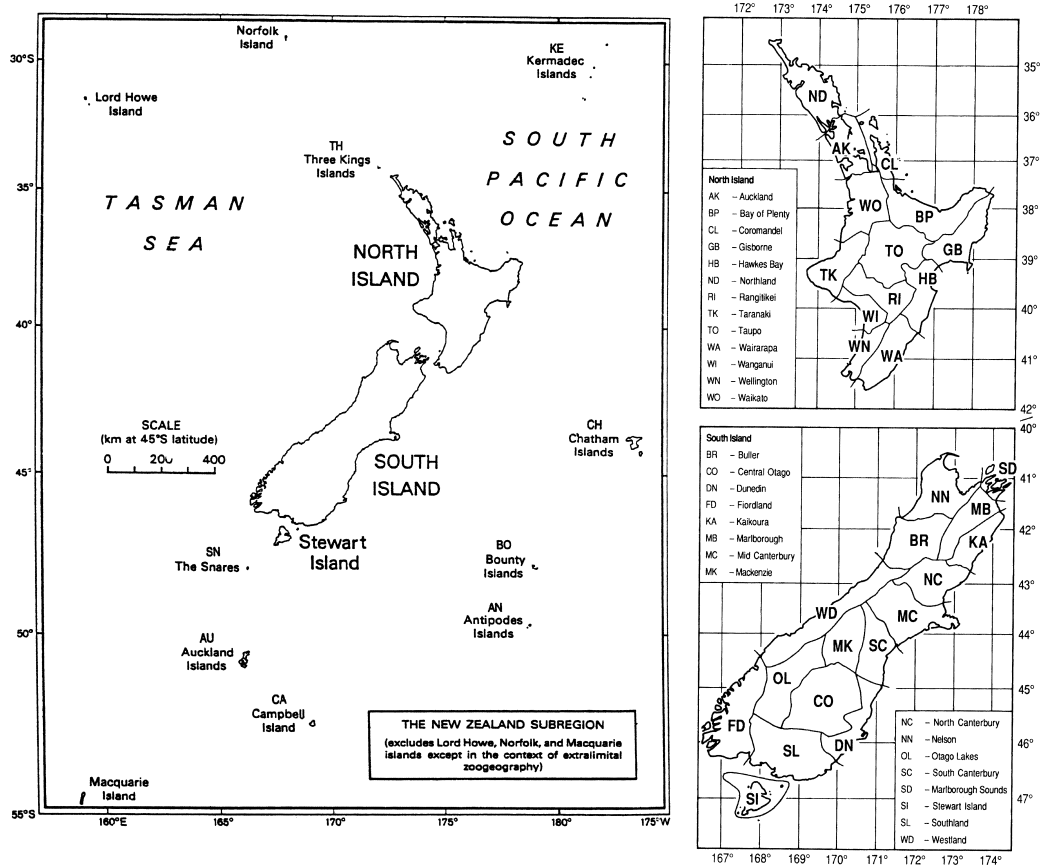


Plate 8. Geographic area codes of New Zealand by Crosby *et al.* (1998).