

***Ahnea*, a new genus from New Zealand (Coleoptera: Staphylinidae: Pselaphinae), with description of a new species**

Jong-Seok Park,¹ Christopher E. Carlton

Abstract—*Ahnea keejeongi* Park and Carlton (Coleoptera: Staphylinidae: Pselaphinae), a **new genus** and **new species** of New Zealand endemic beetle belonging to the supertribe Faronitae is described. Six previously described species are included to this genus and four species are synonymised as follow: *Sagola dissonans* Broun, 1921 and *S. planicula* Broun, 1921 under *Ahnea ventralis* (Broun, 1912); *S. carinata* Broun, 1912 and *S. lineiceps* Broun, 1921 under *Ahnea lineata* (Broun, 1893). A key to species, habitus photographs, line drawings of diagnostic characters, and distribution maps are provided.

Introduction

Two species, *Sagola ventralis* Broun, 1912 and *S. lineata* Broun, 1893, were originally described within the genus *Sagola* Sharp, 1874 (Coleoptera: Staphylinidae: Pselaphinae). The latter is considered to be a paraphyletic assemblage of species (Chandler 2001). However, these two species are distinctive morphologically and can be easily separated from other *Sagola* species by the concealed anterior and posterior foveae of the frontal rostrum, and absences of lateral procoxal and promesocoxal foveae. We consider these characters to be putative synapomorphies that unite the included species into a monophyletic genus. Thoracic foveal characters have been used extensively to define genera of Pselaphinae (Grigarick and Schuster 1980; Chandler 2001), and this diagnostic concept is followed here. In this paper, we describe a new genus, *Ahnea* **new genus**. This new genus and additional taxa to be treated in subsequent publications will result in a natural (phylogenetically based) classification of taxa previously lumped into *Sagola*.

Materials and methods

Approximately 120 specimens were studied from the Field Museum of Natural History (FMNH), Chicago, Illinois, United States of

America; Louisiana State Arthropod Museum (LSAM), Baton Rouge, Louisiana, United States of America; Natural History Museum (NHM), London, United Kingdom; New Zealand Arthropod Collection (NZAC), Auckland, New Zealand; personal collection of Donald S. Chandler (DSC), Durham, New Hampshire, United States of America; personal collection of John T. Nunn (JTN), Dunedin, New Zealand.

Holotypes of species described herein are deposited in the New Zealand Arthropod Collection (NZAC). Depositions of paratypes and additional specimens are indicated parenthetically. Specimen label data for types is transcribed verbatim. Data for other specimens are standardised for consistency.

Three specimens were mounted on permanent slides to aid in observation of internal characters and fine external characters not apparent using a dissecting microscope. Permanent microscopic slides were prepared using the techniques described by Hanley and Ashe (2003). Terminology for the foveal system and enumeration of abdominal sclerites follows Chandler (2001).

New Zealand maps were produced by modifying the map of Crosby *et al.* (1976). The area codes of the New Zealand subregion follow the system of Crosby *et al.* (1998). Multiple specimens from the same locality are indicated by a single symbol.

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J.-S. Park,¹ C.E. Carlton, Department of Entomology, Louisiana State Arthropod Museum, LSB 404, Louisiana State University Agricultural Center, Baton Rouge, Louisiana 70803, United States of America

¹Corresponding author (e-mail: jpark16@tigers.lsu.edu).

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Genus *Ahnea* Park and Carlton, new genus

Type species. *Ahnea ventralis*, here designated

Diagnosis. Adults of this genus can be separated from other faronite genera by the following combination of characters: body small, length 2.6–3.5 mm; frontal rostrum prominent and rectangular, lobes continuous (Fig. 2A); frontal sulcus linear (Fig. 2A); anterior and posterior frontal fovea round and covered by membranous cuticle (Fig. 2A); prosternum without lateral procoxal foveae (Fig. 2B); mesoventrite without promesocoxal foveae (Fig. 2C); abdominal tergites IV–VI with discal carinae; median lobe of genitalia elongate with membranous tube (Figs. 2D–F); parameres symmetrical with various number of thick preapical setae (Figs. 2D–F).

Description. Body length 2.6–3.5 mm. Body reddish brown, antennae, legs, maxillary palpi and elytra paler (Figs. 1A–C). **Head.** Antennae clavate, reaching midpoint of prothorax. Head round with prominent, rectangular rostrum (Fig. 2A), lobes continuous (Fig. 2A). Frontal sulcus linear (Fig. 2A). Anterior and posterior frontal fovea round and covered by membranous cuticle (Fig. 2A). **Thorax.** Prosternum as long as wide, widest at one-third length, lacking lateral procoxal foveae (Fig. 2B). Scutellum

inverted-triangular. Mesoventrite lacking promesocoxal foveae, bearing pairs of large lateral mesoventral and lateral mesocoxal foveae (Fig. 2C). Metaventrite with a pair of lateral meta-ventral foveae. **Abdomen.** Abdominal tergites IV–VI with discal carinae. Abdominal tergite and sternite IV largest, but slightly larger than V (Figs. 1A–C). **Aedeagus.** Median lobe elongate with longer membranous tube (Figs. 2D–F). Phallobase bulky and round (Figs. 2D–F). Parameres symmetrical and many punctures present along mesial margins (Figs. 2D–F). Each paramere with 1–3 thick and short preapical setae (Figs. 2D–F).

Comments. No sexual dimorphism was apparent except that related to differences in the genital sclerites of abdominal sternite IX. Female genitalia, including spermathecae, apparently are membranous and were not observable after clearing specimens using 10% potassium hydroxide (KOH).

Remarks. This genus can be easily separated from *Sagola* and other closely allied genera of Faronitae by the concealed anterior and posterior foveae of the frontal rostrum, and absences of lateral procoxal and promesocoxal foveae.

Etymology. This genus is named for a world staphylinid specialist, Dr. Kee-Jeong Ahn.

Key to species of *Ahnea*

1. Eye larger, one-half length of temple; elytra longer than wide (Fig. 1B); abdominal tergite IV with a pair of transverse microtrichial patches *A. lineata* (Broun, 1893)
 - Eye small, one-third length of temple; elytra as long as wide (Figs. 1A, 1C); abdominal tergite IV lacking microtrichial patch 2
 - 2 (1). Body smaller, length 2.7–3.1 mm; apex of median lobe of male genitalia flattened with two setae (Fig. 2D). *A. ventralis* (Broun, 1912)
 - Body larger, length 3.1–3.5 mm; apex of median lobe of male genitalia ink pen tip-shaped, lacking any setae (Fig. 2F). *A. keejeongi* **new species**
-

Ahnea ventralis (Broun, 1912)

(Figs. 1A, 2A–D, 3)

Sagola ventralis Broun, 1912: 623. Hudson 1923: 365; 1934: 183. Raffray 1924: 232. Newton and Thayer 2005. Nomura and Leschen 2006: 244. **New combination.**

Sagola dissonans Broun, 1921b: 601. Hudson 1923: 366, 1934: 184. Newton and Thayer 2005. Nomura and Leschen 2006: 242. **New synonym.**

Sagola planicula Broun, 1921a: 503. Hudson 1923: 366, 1934: 184. Kuschel 1990: 48. Newton and Thayer 2005. Nomura and Leschen 2006: 243. **New synonym.**

Type material. Holotype. New Zealand: Buller (BR): ♂, glued on rectangular card, “Type” [red label, printed]; “Greymouth, New Zealand. Helms” [white label, printed]; “10” [white label, handwritten]; “*Sagola ventralis*”

Fig. 1. Habiti, dorsal views. A. *Ahnea ventralis* (Broun, 1912); B. *A. lineata* (Broun, 1893); C. *A. keejeongi* new species. Scale bars = 1 mm.

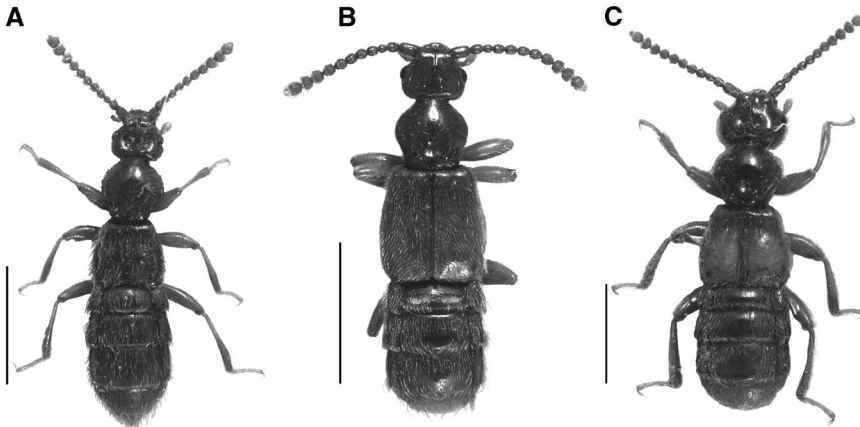
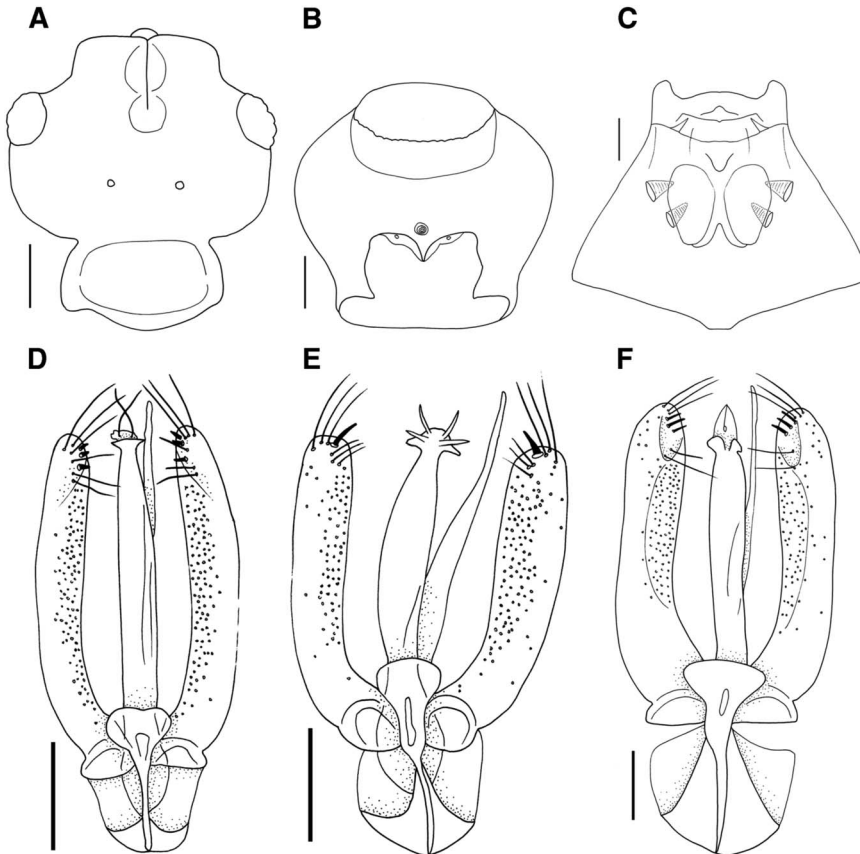


Fig. 2. *Ahnea ventralis* (Broun, 1912). A. dorsal head; B. prosternum; C. mesosternites and metasternites. Aedeagi, dorsal views. D. *A. ventralis*; E. *A. lineata* (Broun, 1893); F. *A. keejeongi* new species. Scale bars = 0.1 mm.



[white label, handwritten], deposited in Natural History Museum, London, United Kingdom (NHM). **Holotype of *Sagola dissonans*: New Zealand: Wellington (WN):** ♂, glued on rectangular card, “4165.♂” [white label, handwritten]; “New Zealand Broun Coll. Brit. Mus. 1922–482” [white label, printed]; “Featherston. 6.10.1916” [white label, handwritten]; “*Sagola.♂ dissonans*” [white label, handwritten], deposited in Natural History Museum, London, United Kingdom (NHM). **Holotype of *Sagola planicula*: New Zealand: Bay of Plenty (BP):** ♂, glued on rectangular card, “4017.♂” [white label, handwritten]; “New Zealand Broun Coll. Brit. Mus. 1922–482” [white label, printed]; “Mt. Te Aroha. Nove 1910” [white label, handwritten]; “*Sagola ♂ planicula*” [white label, handwritten], deposited in Natural History Museum, London, United Kingdom (NHM).

Additional material ($n = 62$; 31 males, 31 females). **New Zealand: Bay of Plenty (BP):** 1♀, Orete Forest, Te Puia Hut, 25 I 1993, J.S. Dugdale, litter 93/3 (NZAC); **Hawkes Bay (HB):** 1♂, Kaweka Range, Makahu Saddle, 12.iii.1980, C.F. Butcher, plants 80/40 (NZAC); 1♂, Boundary Stream Scenic Reserve, 20.x.1984, C.F. Butcher, litter and rotten wood 84/71 (NZAC); **Marlborough (MB):** 4♂♂2♀♀, Pelorus Bridge Scenic Reserve, 35 m, 41°18.3'S, 173°34'E, 27. xi.2005, mixed broadleaf (including *Nothofagus*)-podocarp forest, FMHD#2005-042, litter, A. Newton, A. Solodovnikov, D. Clarke, ANMT site 1155 (FMNH); 4♂♂1♀ (1♂, slide-mounted), 15 km w Havelock, Pelorus Bridge Res, 25.v.1982, FMHD#2005-600, mixed forest litter, S. Peck (FMNH); 2♀♀, Mt. Robinson's Ridge, 518 m, Kenepuru Hd, 13.iii.1970, J.I. Townsend, litter 70/142 (NZAC); 1♀, French Pass, Orr Hill, 23.iv.1963, G. Kuschel, litter 63/13 (NZAC); 1♀, Pelorus Bridge, 16.i.1949, A.E. Brookes Collection (NZAC); **Northland (ND):** 1♀, Waipoua State Forest, 0.9 km e Forest Hqtr, 120 m, 26.xi–4. xii.1984, hardwood-podocarp forest, A. Newton, M. Thayer 686, FIT and window trap (FMNH); **Nelson (NN):** 1♀, Dun Mt, 31.vi.1966, A.K. Walker, litter 66/274 (NZAC); 1♂, Upper Maitai, 7.iii.1949, E.S. Gourlay (NZAC); **Rangitikei (RI):** 1♀, Ruahine Ra, Triplex, 10.ii.1980, C.F. Butcher, litter 80/16 (NZAC); **Marlborough Sounds (SD):** 2♂♂2♀♀, Opouri Saddle, above Tennyson Inlet, 540 m, 15.xii.1984–5.i.1985,

Nothofagus forest, A. Newton, M. Thayer 708, litter (FMNH); 2♂♂2♀♀, Tennyson Inlet, w side Te Mako Bay, 125 m, 15.xii.1984–5.i.1985, *Nothofagus*-podocarp-hardwood, A. Newton, M. Thayer 710, litter (FMNH); 1♂3♀♀, 70 km ne Nelson, Tennyson Inlet, 480 m, 27.v.1982, FMHD#2005-604, Beech forest litter, S. Peck (FMNH); 2♀♀, Port Ligar, 305 m, 26.x.1969, F. Alack, litter 69/175 (NZAC); 1♂, Mt. Stokes, 762 m, 12.iii.1970, J.I. Townsend, litter 70/141 (NZAC); 1♀, Tennyson Inlet rd, 115–135 m, 30. xii.1984–5.i.1985, forest streams hardwood-podocarp-nikau forest, A. Newton, M. Thayer 723, litter (FMNH); **Taupo (TO):** 1♀, Ohakune Mt, 27.xi.1985, C.H.C. Lyal, litter 85/73 (NZAC); **Wairarapa (WA):** 1♀, Upper Manawatu Gorge, 24.x.1993, J. Nunn (JTN); **Wanganui (WI):** 2♀♀, near Glow-worm Cave Table Hill road near Aptiti, 8..ii.1997, J. Nunn (JTN); **Wellington (WN):** 3♂♂2♀♀, Akatarawa saddle, Tararua SF, (s of Waikanoe), 500 m, 7.iii.1978, S. Peck, litter (NZAC); 1♂1♀, Tararua Forest Park, Waitewaewae tr, 220 m, 40°51.98'S 175°15.319'E, 26.xi.2005, broadleaf (much *Knightia exelsa*)-podocarp forest, FMHD#2005-0336, litter, M. Thayer, A. Newton, ANMT site 1152 (FMNH); 2♀♀, Tararua Forest Park, above Akatarawa Saddle, 455 m, 40°56.936'S 175°06.529'E, 26.xi.2005, broadleaf-podocarp forest on slope, FMHD#2005-033, litter, A. Newton, M. Thayer, ANMT site 1151 (FMNH); 2♂♂, Tararua FP, Holdsworth, 16.iv.2005, R. Leschen, litter RL976, 40.53°S 175.28°E (NZAC); 2♂♂, Manukau North road end, 8.ix.1995, J. Nunn, leaf litter (JTN); 1♂, Tararua Ra, Mt. Holesworth tr, 3.ix.1965, J.I. Townsend. moss 65/469 (NZAC); 1♂, Akatarawa Saddle, 600 m, 7.iii.1978, S.B. Peck, litter (NZAC); 1♂, Waiotauru road, Tararua FP, 22.x.1991, J. Nunn, litter under silver beech (JTN); 1♂, Akatarawa road, stm, 18.iv.1992, J. Nunn (JTN); 1♀, Tararua FP tk, Akatarawa Saddle, 17.i.1984, H.P. McColl, litter (NZAC); 1♂, Rimutakes Range, 14.ii.1952, R. Hornabrook (NZAC); 1♂, Featherston, Wairarapa, T. Hall, 28.viii.1916 (NZAC).

Diagnosis. This species can be distinguished from other species of the genus by the following combination of characters: body length 2.7–3.1 mm; eye small, approximately one-third length of temple; elytra as long as wide and hind wings reduced to small pads; abdominal tergite IV without microtrichial patches;

shapes of antennomeres and genitalia unique to species.

Redescription. Length 2.7–3.1 mm. Body reddish brown, antennae, legs, maxillary palpi, elytra paler (Fig. 1A). *Head.* Head round, as long as wide, widest across eyes (Fig. 2A). Scape approximately 1.5 times longer than wide, antennomeres 2–6 longer than wide, 7–10 subquadrate. Eye small, approximately one-third length of temple (Fig. 2A). *Thorax.* Prosternum as long as wide, widest at one-third length (Fig. 2B). Elytra subquadrate (Fig. 1A). Hind wings reduced to small pads. Mesothorax and metathorax trapezoidal, as long as wide (Fig. 2C). *Abdomen.* Abdominal tergite IV without microtrichial patches. *Aedeagus.* Median lobe of genitalia long, bearing tube from base (Fig. 2D). Apex of median lobe flat with two setae (Fig. 2D). Phallobase of median lobe symmetrical and rounded (Fig. 2D). Parameres symmetrical with three pairs of short thick setae, and six pairs of longer setae at tip (Fig. 2D).

Type locality. Greymouth (BR), New Zealand.

Distribution. Bay of Plenty (BP), Buller (BR), Hawkes Bay (HB), Marlborough (MB), Northland (ND), Nelson (NN), Rangitikei (RI), Marlborough Sounds (SD), Taupo (TO), Wairarapa (WA), Wanganui (WI), Wellington (WN) (Fig. 3: black circles).

Habitat. Specimens of this species were collected mostly by sifting leaf, moss, and wood litter in broadleaf, podocarp, or *Nothofagus* Blume (*Nothofagaceae*) forests.

Comments. Specimens of *Ahnea ventralis* can be separated from its congeners by the shapes of the antennomeres 4–10, short elytra, and small eyes. The type specimens of *S. dissonans* and *S. planicula* share these diagnostic characters. For these reasons, we have placed *S. dissonans* and *S. planicula* in synonymy with *A. ventralis*.

Ahnea lineata (Broun, 1893)

(Figs. 1B, 2E, 3)

Sagola lineata Broun, 1893: 175. Raffray 1904: 498; 1911: 5; 1924: 233. Hudson 1923: 365; 1934: 183. Newton and Thayer 2005. Nomura and Leschen 2006: 242. **New combination.**

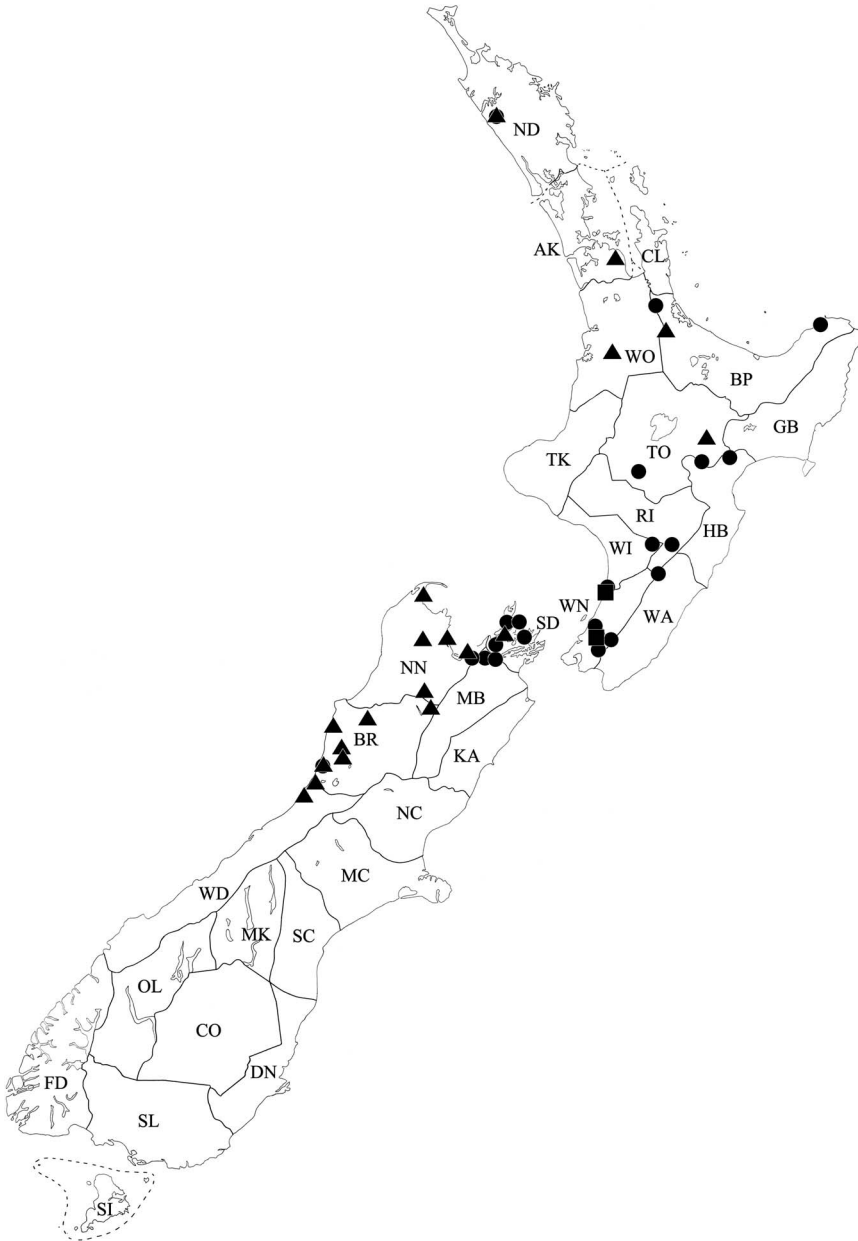
Sagola carinata Broun, 1912: 622. Hudson 1923: 365, 1934: 183. Raffray 1924: 232. Newton and Thayer 2005. Nomura and Leschen 2006: 241. **New synonym.**

Sagola lineiceps Broun, 1921a: 504. Hudson 1923: 366, 1934: 184. Newton and Thayer 2005. Nomura and Leschen 2006: 243. **New synonym.**

Type material. Holotype. New Zealand: Waikato (WO): ♀, glued on rectangular card, “Type” [red label, printed]; “3719” [white label, handwritten]; “Pirongia” [white label, printed]; “New Zealand Broun Coll. Brit. Mus. 1922–482” [white label, printed]; “*Sagola lineata*” [white label, handwritten], deposited in Natural History Museum, London, United Kingdom (NHM). **Holotype of *Sagola carinata*: New Zealand: Buller (BR):** ♂, glued on rectangular card, “Type” [red label, printed]; “9.” [white label, handwritten]; “Greymouth, New Zealand. Helms” [white label, printed]; “Sharp Coll. 1905-313” [white label, printed]; “*Sagola* ♂ *carinata*” [white label, handwritten], deposited in Natural History Museum, London, United Kingdom (NHM). **Holotype of *Sagola lineiceps*: New Zealand: Nelson (NN):** ♀, glued on rectangular card, “4018.♀” [white label, handwritten]; “New Zealand Broun Coll. Brit. Mus. 1922–482” [white label, printed]; “Glenhope. 14.3.1915” [white label, handwritten]; “*Sagola lineiceps*” [white label, handwritten], deposited in Natural History Museum, London, United Kingdom (NHM).

Additional material ($n = 34$; 21 males, 13 females). New Zealand: Auckland (AK): 1♂, Aunua Ra, Kohukohunui, 550 m, 30.iii.1974, G. Kuschel, litter 74/19 (NZAC); **Bay of Plenty (BP):** 1♂, Okauia, Kaimai R, Matamata, 1.i.1924, A.E. Brookes (NZAC); 1♂, Okauia, Kaimai Ra, Matamata, 6.ii.1921, A.E. Brookes (NZAC); **Buller (BR):** 1♂, Tawhai SF, Big R road, 9.xi.1971, J.C. Watt, litter 71/132 (NZAC); 1♂, Greymouth, Grandjeans tk, 10.x.2005, R. Leschen, S. Nomura, litter, 42°28'S 171°12'E, RL 1019 (NZAC); 1♂, Fletchers creek, stone creek, 28.i.1972, J.S. Dugdale, PB15, litter 72/101 (NZAC); 1♂, Hochstetter SF, 6 km s of Ahaura, 11.xi.1971, J.C. Watt, litter 71/148 (NZAC); 1♂, Paparoa NP, 2 km ne Punakaiki, Bullocl Creek road, 50 m, 12.xi.2005, R. Leschen, S. Nomura, P. Lambert, litter RL1024, 42°06'S 171°22'E (NZAC); 1♂, Woods Creek tr, 184 m, 24.ii.2007, K. Marske, KM010, dead wood with fungi, 42°33.194'S 171°20.926'E (NZAC); 1♀, Reefton, 12.iv.1977, J.A. Wightman, pit trap in beech forest (NZAC); 1♀, Nelson Lakes NP, Mt. Robert, Speargrass tr, 875 m, 41°49.469'S 172°48.311'E,

Fig. 3. Known collection localities of *Ahnea* new genus. *Ahnea ventralis* (Broun, 1912): black circles; *A. lineata* (Broun, 1893): triangles; *A. keejeongi* new species: black square.



30.xi–17.xii.2005, *Nothofagus* forest, FMHD# 2005-061, pitfall trap, A. Solodovnikov, D. Clarke, ANMT site 1161 (FMNH); **Northland (ND):** 1♀, Waipoua SF, Toronui tr, 150 m, 14.iv.1980, kauri-podocarp-broadleaf-nikau palm forest, A. Newton, M. Thayer, litter (DSC); **Nelson (NN):** 1♂,

Kahurangi NP, Cobb Dam road, Asbestos trail, 450 m, 41°06.333'S 172°43.174'E, 29.xi–18.xii.2005, mixed broadleaf (including *Nothofagus fusca*)-podocarp forest, FMHD#2005-111, litter, A. Solodovnikov, D. Clarke *et al.*, ANMT site 1160 (FMNH); 1♂, Upper Maitai, 3.v.1950, E.S. Gourlay

(NZAC); 3♀, 30 km sw Collingwood 15 mi creek, 100 m, 23.v.1982, FMHD#2005-597, litter, S. Peck (FMNH); 1♀, 20 km nw Motueka, Riwaka River Res, 28.v.1982, FMHD#2005-605, mixed forest litter, S. Peck (FMNH); **Marlborough Sounds (SD)**: 2♂♂1♀, Opouri Saddle, above Tennyson Inlet, 540 m, 15.xii.1984–5.i.1985, *Nothofagus* forest, A. Newton, M. Thayer 708, window trap (FMNH); **Taupo (TO)**: 2♂♂, Ahimanawa Ra, 609 m, 14.i.1972, G.W. Ramsay, litter 72/10 (NZAC); **Westland (WD)**: 2♂♂, 1.8 km n Punakaiki, 50 m, 19.xii.1984–20.i.1985, hardwood-podocarp-nikau forest, A. Newton, M. Thayer 719, window trap (FMNH); 1♂, 1.8 km n Punakaiki, 50 m, 19.xii.1984–20.i.1985, hardwood-podocarp-nikau forest, A. Newton, M. Thayer 719, litter (DSC); 1♂, Okuku creek, 11.3 km sse Kumara, 60 m, 18–22.iii.1980, podocarp-broadleaf, A. Newton, M. Thayer, litter (FMNH); 1♀, Hokitika R. Gorge, S Kowhitirangi, 100 m, 17.iii.1980, podocarp-broadleaf, A. Newton, M. Thayer, litter (FMNH); 1♂1♀, Hokitika Gorge, 29.i.1978, S.B. Peck, litter (NZAC); 1♂, Lake Mahinapua, 9 XI 2005, R. Leschen, S. Nomura, litter RL1010, 42°47'S 170°55'E (NZAC); 1♀, 1.5 km n Punakaiki, 50 m, 19.xii.1984–20.i.1985, hardwood-nikau forest, A. Newton, M. Thayer 720, litter (DSC); 1♀, Hokitika, Lake Mahinapua Res, 28.i.1978, S. Peck, J. Peck, bracket fungi (NZAC); 1♀, Okuku Scenic Reserve, 46.7 km w Otira, 75 m, 42°43'S 171°14'E, #050, *Laurelia novaezelandiae* litter, 12.i.1998, C. Carlton, R. Leschen (LSAM).

Diagnosis. This species can be distinguished from other species of the genus by the following combination of characters: body length 2.6–3.0 mm; eye prominent, approximately one-half length of temple; elytra longer than wide and hind wings fully developed; abdominal tergite IV with a pair of transverse microtrichial patches; shapes of antennomeres and genitalia unique to species.

Redescription. Length 2.6–3.0 mm. Body reddish brown, antennae, legs, maxillary palpi, elytra, paler (Fig. 1B). *Head.* Head round, as long as wide, widest across eyes (Fig. 1B). Scape ~1.5 times longer than wide, antennomeres 2–8 longer than wide, 9–10 subquadrate. Eye prominent, approximately one-half length of temple. *Thorax.* Prosternum as long as wide, widest one-third length. Elytra rectangular (Fig. 1B). Hind wings fully developed. Mesothorax and metathorax trapezoidal, longer than wide. *Abdomen.* Abdominal

tergite IV with a pair of transverse microtrichial patches. *Aedeagus.* Median lobe of genitalia elongate, bearing tube from base (Fig. 2E). Apex of median lobe triangular with four lobes (Fig. 2E). Phallobase of median lobe symmetrical and rounded (Fig. 2E). Parameres symmetrical with a pair of short thick setae, and six pairs of longer preapical setae (Fig. 2E).

Type locality. Mount Pirongia (WO), New Zealand.

Distribution. Auckland (AK), Bay of Plenty (BP), Buller (BR), Northland (ND), Nelson (NN), Marlborough Sounds (SD), Taupo (TO), Westland (WD) (Fig. 3: triangles).

Habitat. Specimens of this species were collected using window traps, or by sifting leaf and log litter in broadleaf, kauri, podocarp, or *Nothofagus* forests.

Comments. Specimens of *Ahnea lineata* can be separated from other species of this genus by shapes of antennomeres 4–10, longer elytra, and larger eye. The type specimens of *S. carinata* and *S. lineiceps* share these diagnostic characters. For these reasons, we have placed *S. carinata* and *S. lineiceps* in synonymy with *A. lineata*.

Ahnea keejeongi Park and Carlton, new species

(Figs. 1C, 2F, 3)

Type material. **Holotype.** New Zealand: **Wellington (WN)**: ♂, aedeagus dissected and mounted in balsam on a clear plastic card, “New Zealand WN Manukau Rd North road end 20-Oct-96”, “In moderately forest litter”, “HOLOTYPE *Ahnea keejeongi* Park and Carlton des. 2013”, deposited in New Zealand Arthropod Collection (NZAC). **Paratypes (n = 3; 1 male, 2 females):** New Zealand: **Wellington (WN)**: 1♂, Akatarawa Saddle, 600 m, 7 III 1978, S.B. Peck, litter (NZAC); 1♀, 10 km s of Levin, Waikawa, 150 m, 8 III 1978, S.B. Peck, J. Peck, litter (NZAC); 1♀, Tararua Forest Park, above Akatarawa Saddle, 455 m, 40°56.936'S 175°06.529'E, 26 XI 2005, broadleaf-podocarp forest on slope, FMHD#2005-033, litter, A. Newton, M. Thayer, ANMT site 1151 (FMNH).

Etymology. This species is named for a world staphylinid specialist, Dr. Kee-Jeong Ahn.

Diagnosis. This species is separated from other species of this genus by the following

combination of characters: larger size, 3.1–3.5 mm; eye small, approximately one-fourth length of temple; elytra subquadrate and hind wings well developed; abdominal tergite IV without microtrichial patch; shapes of antennomeres and genitalia unique to species.

Description. Length 3.1–3.5 mm. Body reddish brown, antennae, legs, maxillary palpi, elytra, paler (Fig. 1C). *Head.* Head round, as long as wide, widest across eyes (Fig. 1C). Male scape ~1.5 times longer than wide, antennomeres 2–6 longer than wide, 7–10 subquadrate. Female antennomeres 2–8 longer than wide, 9–10 subquadrate. Eye small, approximately one-fourth length of temple. *Thorax.* Prosternum as long as wide, widest at one-third length. Elytra subquadrate (Fig. 1C). Hind wings well developed. Mesothorax and metathorax trapezoidal, longer than wide. *Abdomen.* Abdominal tergite IV without microtrichial patches. *Aedeagus.* Median lobe of genitalia long, bearing tube from base (Fig. 2F). Apex of median lobe ink-tip shaped (Fig. 2F). Phallobase of median lobe symmetrical and rounded (Fig. 2F). Parameres symmetrical with three pairs of short and thick setae, and seven pairs of longer preapical setae (Fig. 2F).

Distribution. Wellington (WN) (Fig. 3: black square).

Habitat. Specimens of this species were collected by sifting leaf litter in broadleaf or podocarp forests.

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