

# A Check List of New Zealand Plant Galls (Zooecidia)

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## INTRODUCTION

A STUDY of New Zealand plant galls undertaken ten years ago (Lamb, 1949) revealed 86 galls on 75 plant species. Only 51 of these were caused by insects or mites (zooecidia). Since then many more galls have been collected, but hitherto no list of New Zealand galls has been published. Comprehensive catalogues of galls have been published for most parts of the world, but the literature on galls of this country is sparse and scattered.

The aim of this paper is to list the known zooecidia of New Zealand, though many of the galls included have not been described in detail, and many of the causal organisms are unidentified or undescribed. A total of 188 galls are listed as occurring on 148 species of plants (including four species of ferns and two Gymnosperms). In describing the galls the terminology of Felt (1940) and earlier workers has been followed.

## FILICES

*Cyathea smithii* (Hook.) Domin.

1. Pouch galls on pinnae ..... ? gallmite  
(Ohakune, January 27, 1954, F. Duguid.)

*Gleichenia circinata* (Sw.) C. Christen.

2. Tips of pinnae rolled and swollen ..... gallmite (*Aceria* sp.)  
(Forest Lake, Otaki, March 9, 1953, F. Duguid.)

*Gleichenia microphylla* (R. Br.) C. Christen.

3. Green galls up to 0.5 mm diameter  
on lower surface of pinnae ..... gallmite (*Aceria* sp.)  
(Rotorua, October 23, 1957, J. Rawlings.)

*Pyrosia serpens* (Forst. f.) Ching

4. Brown witches' brooms, 15 mm  
diameter ..... gallmite (*Aceria* sp.)  
(Rotorua, October 23, 1957, J. Rawlings.)

## GYMNOSPERMAE

### Family TAXACEAE

*Phyllocladus alpinus* Hook. f.

5. Nail galls, 2 mm long on cladodes ..... Coccid  
(National Park, November, 1949, K. P. L.; January 28, 1954, F. Duguid; Reefton Saddle, Westland, December 4, 1952, S. Baker.)

*Phyllocladus trichomanoides* D. Don.

6. Nail galls on cladodes and stem tips ..... Coccid  
(Paihia, Bay of Islands, January, 1952, K. P. L.)

## ANGIOSPERMAE

## Family APOCYNACEAE

**Parsonsia** sp.

7. Leaf erineum ..... gallmite  
(Upper Hutt, May 4, 1953; Hayward's, May 19, 1953, A. J. Healy.)

**Parsonsia capsularis** R. Br.

8. Stem gall (Hudson, 1928) ..... *Morova subfasciata* Walk.  
(Lepidoptera: Thyrididae)

**Parsonsia heterophylla** A. Cunn.

9. Leaf dimple or pouch gall ..... Coccid  
(National Park, January 29, 1954, S. D. Baker.)  
10. Leaf erineum ..... gallmite  
(Smith's Bush, Auckland, October 16, 1948, J. M. Dingley.)

## Family ARALIACEAE

**Nothopanax** sp.

11. Leaf edge rolling ..... gallmite  
(National Park, January 28, 1954, F. Duguid.)

**Nothopanax anomalum** (Hook.) Seem.

12. Terminal bud galls ..... ? gallmite  
(Upper Hutt, December 17, 1952, A. J. Healy.)  
13. Leaf dimple galls (Tuthill, 1952) ..... *Trioza irregularis* (Ferris & Klyver)  
(Homoptera: Psyllidae)

**Nothopanax arboreum** (Forst. f.) Seem.

14. Leaf dimple galls (Tuthill, 1952) ..... *Trioza irregularis* (F. & K.)  
(Homoptera: Psyllidae)

**Nothopanax colensoi** (Hook. f.) Seem.

15. Leaf dimple galls (Tuthill, 1952) ..... *Trioza irregularis* (F. & K.)  
(Homoptera: Psyllidae)

**Nothopanax edgerleyi** (Hook. f.) Harms.

16. Leaf dimple galls (Tuthill, 1952) ..... *Trioza irregularis* (F. & K.)  
(Homoptera: Psyllidae)

17. Leaf edge rolling ..... gallmite  
(Ohakune, January 27, 1954, F. Duguid.)

**Nothopanax simplex** (Forst. f.) Seem.

18. Leaf dimple galls (Tuthill, 1952) ..... *Trioza irregularis* (F. & K.)  
(Homoptera: Psyllidae)  
19. Leaf edge rolling ..... gallmite  
(National Park, 1949, K. P. L.; August 4, 1950, E. Bray; Mt. Egmont, March 27, 1951.  
J. M. Dingley; Kaimanawa Ra., March 27, 1951, J. M. Dingley.)

## Family BETULACEAE

**Corylus maxima** Mill. (Filbert)

20. Greatly enlarged buds ..... *Phytoptus avellanae* (Nal.)  
(Acarina: Eriophyidae)  
(Hastings, July 14, 1952, D. W. McKenzie; Havelock North, September 11, 1957, D. W. McKenzie.)

## Family CAMPANULACEAE

*Wahlenbergia marginata* (Thunb.) A. DC. var. *australis* Hatch.

21. Enlarged buds, 4 mm diameter ..... gallmite  
(Port Hills, Christchurch, December 29, 1954, A. J. Healy.)

## Family CAPRIFOLIACEAE

*Alseuosmia macrophylla* A. Cunn.

22. Leaf dimple gall (Tuthill, 1952) ..... *Trioza alseuosmia* Tuthill  
(Homoptera: Psyllidae)  
(Mamaku Hills, Rotorua, September 26, December 5. Mamaku Gorge, December 6,  
Tuthill (*loc. cit.*).)

## Family CHENOPODIACEAE

*Salicornia australis* Sol. ex Forst. f.

23. Leaf pocket galls, pink to red in  
colour (Lamb, 1953) ..... *Aceria rubifaciens* Lamb  
(Acarina: Eriophyidae)  
(Waitemata Harbour, Auckland, March 19, 1948, K. P. L.; Mangere, Auckland, January,  
1951, K. A. J. Wise.)

## Family CONVULVULACEAE

*Calystegia* sp.

24. Leaf pouch galls (Lamb, 1952) ..... *Vasates calystegiae* Lamb  
(Acarina: Eriophyidae)  
(Auckland, 1949, K. P. L. Lyttelton Harbour, January 24, 1955, A. J. Healy.)

*Calystegia sepium* (L.) R. Br.

25. Leaf pouch galls (Lamb, 1952) ..... *Vasates calystegiae* Lamb  
(Acarina: Eriophyidae)  
(Auckland, February 2, 1950, K. P. L.)

*Calystegia soldanella* R. Br.

26. Leaf pouch galls ..... *Vasates calystegiae* Lamb  
(Acarina: Eriophyidae)  
(Kapiti Is., Wellington, January 21, 1953, R. R. Russell.)

*Calystegia turguriorum* R. Br. ex Hook. f.

27. Leaf pouch galls (Lamb, 1952) ..... *Vasates calystegiae* Lamb  
(Acarina: Eriophyidae)  
(Mt. Alexandra, Canterbury, December 12, 1943, A. J. Healy. Auckland, February 2,  
1950; May 12, 1952, K. P. L. Three Kings Is., January, 1952, G. T. S. Baylis.)

## Family COMPOSITAE

*Cassinia fulvida* Hook. f.

28. Monothalamous bud galls ..... insect  
(Tussock, Christchurch, November, 1948, P. A. Lush.)

*Cassinia retorta* A. Cunn.

29. Witches' brooms ..... gallmite  
(Bethells Beach, Auckland, November 8, 1952, S. A. Rumsey.)

*Cassinia vauvilliersii* Hook. f.

30. Witches' brooms ..... gallmite (*Eriophyes* sp.)  
(Brothers Ra., 3,000ft, Canterbury, November 1, 1958, N. T. Moar.)

**Celmisia coriacea** Hook. f.

31. Monothalamous leaf galls, 7 mm long ..... insect  
(Diptera: ? Trypetidae)  
(Jacks Pass, Hanmer, February 1, 1958, L. J. Metcalf.)

**Chrysanthemum** sp.

32. Nail galls on leaves and stems (Lamb, 1954) ..... *Diarthronomyia chrysanthemi* Ahl.  
(Diptera: Cecidomyiidae)  
(Auckland, April, 1953, K. P. L.)

**Helichrysum bellidoides** Willd.

33. Flower head compacted into a leafy, spherical gall, 7 mm diameter ..... gallmidge  
(Mt. Maungatua, Otago, March 22, 1953; April 15, 1953, G. T. S. Baylis.)

**Helichrysum glomeratum** Benth. & Hook. f.

34. Bud gall, 20 mm diameter, composed of slender, strap-like leaves ..... ? gallmidge  
(Moawhango R., Waiouru, October 25, 1943, E. D. Hatch.)

**Hypochoeris radicata** L.

35. Fusiform, plurilocular, stem swellings *Aulax hypochoeridis* Kief.  
(Hymenoptera: Cynipidae)  
(Auckland, November, 1948; December, 1948; May 30, 1949, K. P. L. Paibia, Bay of Islands, December, 1950, K. P. L. Mt. Holdsworth, Tararua Ra., P. A. Lush.)

**Olearia** sp.

36. Bud galls ..... ? gallmidge  
(Stewart Is., February, 1954, J. M. Dingley.)  
37. Oval, hairy, galls 5-10 mm long on leaves and stems; usually monothalamous ..... ? gallmidge  
(National Park, January 30, 1954, S. D. Baker.)

**Olearia arborescens** (Forst. f.) Ckn. & Laing.

38. Brown, hairy galls 5-15 mm long on buds, leaves and petioles ..... gallmidge  
(Wilmott Saddle, Otago, January 10, 1941, H. G. Simpson; Mt. Egmont, March 27, 1951, J. M. Dingley; Weheka, Westland, April 22, 1955, J. M. Dingley.)

**Olearia avicenniaefolia** (Raoul) Hook. f.

39. Leaf edge curling (Tuthill, 1952) ..... *Trioza subvexa* Tuthill  
(Homoptera: Psyllidae)  
(Fox Glacier, February 7, 1950, L. D. Tuthill.)

40. Nail gall, 1 mm wide, 6 mm long ..... ? gallmidge  
(Lake Wanaka, February, 1953, H. H. Allan.)

**Olearia ilicifolia** Hook. f.

41. Leaf dimple galls with uprolled leaf edges (Tuthill, 1952) ..... *Trioza doryphora* (Mask.)  
(Homoptera: Psyllidae)

(Mt. Egmont, April 22, 1946, M. W. Carter. Hauhangaroa Ra., March 30, 1953, J. M. Dingley.)

**Olearia lacunosa** Hook. f.

42. Leaf edge curling (Tuthill, 1952) ..... *Trioza* sp.  
(Homoptera: Psyllidae)

**Olearia nummularifolia** Hook. f.

43. Terminal bud galls up to 20 mm diameter ..... ? gallmidge  
(Brothers Ra., Canterbury, November 1, 1957 N. T. Moar.)

**Olearia solandri** Hook. f.

44. Spherical, smooth, monothalamous  
bud galls, 3 mm diameter ..... insect  
(Levin, March 11, 1954, F. Duguid.)

**Olearia virgata** Hook. f.

45. Spherical, smooth, monothalamous  
bud galls, 5 mm diameter, closely  
adpressed to stem ..... insect  
(Moawhango R., May 16, 1943, E. D. Hatch. Dunedin, 1948, G. Simpson.)

**Raoulia lutescens** Beauv.

46. Buds enlarged to 4 mm diameter,  
each containing a single insect lava gallmidge  
(Earnsclough, Otago, September, 1949, J. A. McNeur.)

**Shawia paniculata** Forst.

47. Bud rosette gall (Maskell, 1888) *Oligotrophus oleariae* (Mask.)  
(Diptera: Cecidomyiidae)  
(Wanganui, December 2, 1936, W. Cottier. Auckland, July, 1949, K. P. L.; September,  
1949, C. R. Thomas.)
48. Leaf blister gall (Anderson, 1935) *Dryomyia shawiae* And.  
(Diptera: Cecidomyiidae)  
(Wellington, June, 1951, Mr. Rough. Christchurch, September 24, 1951, Department  
of Agriculture.)

**Sonchus oleraceus** L.

49. Leaf edge rolling ..... gallmite  
(Mt. Albert, Auckland, February 6, 1951, E. Bray. Mangere, Auckland, February 18,  
1951, K. P. L.)

## Family CORNACEAE

**Griselinia lucida** Forst.

50. Leaf dimple gall ..... Coccid  
(Auckland, February, 1949, I. Sussex; February 13, 1957, V. J. Chapman.)

## Family CORYNOCARPACEAE

**Corynocarpus laevigata** Forst.

51. Leaf dimple galls ..... *Ctenochiton viridis* Mask.  
(Homoptera: Coccidae)  
(Auckland, December, 1948, K. P. L.)

## Family CUNONIACEAE

**Weinmannia racemosa** Linn. f.

52. Twig galls superficially resembling  
cicada injury (Tuthill, 1952) ..... *Atmetocranium myersi* (F. & K.)  
(Homoptera: Psyllidae)  
(Catlins, December 18, 1946, G. B. Rawlings. Waituhi Trig, November 26, 1950, L. D.  
Tuthill.)

## Family ELAEOCARPACEAE

**Aristotelia serrata** (Forst.) Oliv.

53. Leaf dimple gall up to 9 mm dia-  
meter (Tuthill, 1952) ..... *Trioza falcata* (F. & K.)  
(Homoptera: Psyllidae)  
(Ohakune, February 26, 1954, S. D. Baker.)

**Elaeocarpus dentatus** Vahl.

54. Leaf erineum (Lamb, 1953) ..... *Aceria dactylonyx titirangiensis* Lamb  
(Acarina: Eriophyidae)

(Titirangi, June 18, 1950, E. Bray. Riccarton Bush, Christchurch, July 3, 1953, A. J. Healy. Coromandel, December, 1955, C. Chambers.)

## Family EPACRIDACEAE

**Dracophyllum** sp.

55. Swollen terminal buds ..... ? *Eriophyes dracophylli* Lamb  
(Acarina: Eriophyidae)

(National Park, July, 1951, E. Bray; January 28, 1954, F. Duguid.)

**Dracophyllum recurvum** Hook. f.

56. Swollen terminal buds up to 8 mm diameter (Lamb, 1953) ..... *Eriophyes dracophylli* Lamb  
(Acarina: Eriophyidae)

(National Park, July 2, 1950, E. Bray.)

**Dracophyllum subulatum** Hook. f.

57. Swollen terminal buds up to 8 mm diameter (Lamb, 1953) ..... *Eriophyes dracophylli* Lamb  
(Acarina: Eriophyidae)

(Upper Waikato R., March 29, 1943, E. D. Hatch. Waitangi Valley, Waiouru, August 8, 1943, E. D. Hatch. Rotorua, August 12, 1950, E. Bray. Mohaka R., Kaimanawa Ra., June 1, 1953, J. M. Dingley.)

## Family ERICACEAE

**Gaultheria antipoda** Forst. f.

58. Witches' brooms (Lamb, 1953) ..... *Vasates gaultheriae* Lamb  
(Acarina: Eriophyidae)

(Mt. Ruapehu, July 2, 1950, E. Bray. Mt. Holdsworth, Tararua Ra., 1950. P. A. Lush. Lake Okataina, Rotorua, 1950, V. J. Chapman. National Park, January, 1951, J. M. Dingley. Mt. Bruce, Wairarapa, February 17, 1953, A. J. Healy.)

**Gaultheria depressa** Hook. f.

59. Witches' brooms with green aborted flower buds (Lamb, 1953) ..... *Vasates gaultheriae* Lamb  
(Acarina: Eriophyidae)

(National Park, November 5, 1949, K. P. L.; January 28, 1954, F. Duguid.)

## Family FAGACEAE

**Nothofagus cliffortioides** (Hook. f.) Oerst.

60. Leaf pouch galls, 0.5-1.5 mm diameter (Morrison, 1933; Lamb, 1952) ..... gallmite (*Aceria* sp.)

(National Park, April, 1949, K. P. L.; July 2, 1950, E. Bray; March, 1955, B. J. Hooton. Cass, Canterbury, May 13, 1948, A. J. Healy. Ohakune, January 27, 1954, F. Duguid.)

61. Terminal buds enlarged 6 times (Lamb, 1952) ..... gallmite

(National Park, April, 1949, K. P. L.; July 2, 1950, E. Bray. Cass, Canterbury, May 13, 1948, A. J. Healy. Arthur's Pass, January 16, 1955, J. M. Dingley.)

62. Bud galls (Barnes, 1936) ..... *Stephodioplosis nothofagi* Barnes  
(Diptera: Cecidomyiidae)

(Cass, Canterbury, August, 1933, L. Morrison.)

**Nothofagus fusca** (Hook. f.) Oerst.

63. Leaf pouch galls ..... gallmite

(Queen Charlotte Sound, February, 1959, V. J. Chapman.)

**Nothofagus menziesii** (Hook. f.) Oerst.

64. Witches' brooms (Keifer, 1939) ..... *Aceria waltheri* Keif.  
(Acarina: Eriophyidae)

(Silver Peaks, Dunedin, March 23, 1951, G. T. S. Baylis. Reefton Saddle, Westland, December 4, 1952, S. Baker. Dunedin, March 2, 1959, M. N. Watt.)

65. Buds enlarged to 9 mm diameter ..... gallmite

(Dunedin, April 14, 1951, L. O. Simpson.)

66. Leaf pocket galls, 0.8 mm diameter ..... gallmite

(Kaimanawa Ra., April 17, 1955, J. M. Dingley.)

**Nothofagus solandri** (Hook. f.) Oerst.

67. Bud gall (Morrison, 1933) ..... gallmite

68. Leaf pouch gall ..... gallmite

(Wallaceville, December 18, 1952, A. J. Healy.)

**Nothofagus truncata** (Col.) Ckn.

69. Leaf pouch gall ..... gallmite

(Mangaroa, Hutt Valley, August 10, 1945, A. J. Healy.)

70. Buds swollen to 8 mm diameter ..... gallmite

(Mangaroa, Hutt Valley, August 10, 1945, A. J. Healy. Dunedin, July 13, 1951, A. J. Healy.)

## Family HALORAGIDACEAE

**Haloragis** sp.

71. Leaf galls ..... ? gallmite

(Mangaroa Valley, November 13, 1952, A. J. Healy. Waitana Lagoon, S. Island, February 1, 1956, A. J. Healy.)

**Haloragis depressa** (A. Cunn.) Walp.

72. Red swellings 3–5 mm diameter on  
buds or stems (Lamb, 1953) ..... *Tegonotus haloragi* (Lamb)  
(Acarina: Eriophyidae)

(Browns Bay, Auckland, October 2, 1950, J. M. Dingley.)

**Haloragis erecta** (Murr.) Schind.

73. Bud galls (Ramsay, 1958) ..... *Aceria victoriae* Ramsay  
(Acarina: Eriophyidae)

(Wellington, April 24, 1956; June 22, 1956; September 9, 1956, G. W. Ramsay.)

**Haloragis micrantha** R. Br.

74. Leaf and stem distortion ..... ? gallmite

(Upper Hutt, April 1, 1952; November 13, 1952; March 9, 1953, A. J. Healy.)

**Haloragis procumbens** Cheesem.

75. Bud gall ..... *Tegonotus haloragi* (Lamb)  
(Acarina: Eriophyidae)

(Waikumete, Auckland, October 6, 1958, V. J. Chapman.)

## Family ICACINACEAE

**Pennantia corymbosa** Forst.

76. Leaf erineum ..... gallmite

(Haywards, May 19, 1953, A. J. Healy.)

## Family JUGLANDACEAE

**Juglans regia** L. (Walnut)

77. Leaf erineum on abaxial surface,  
purplish on adaxial surface ..... *Aceria erineus* (Nal.)

(Acarina: Eriophyidae)

(Palmerston North, January 21, 1932, Department of Agriculture; December 2, 1936, W. Cottier. Christchurch, November 30, 1936, D. Combridge. Nelson, January, 1949, P. R. Fry. Feilding, January 19, 1950, B. P. Coleman. Southland, April, 1950, G. Satchell. Auckland, January 11, 1951, K. P. L. Te Awamutu, January 15, 1957, Department of Agriculture. Dunedin, April 13, 1959, M. N. Watt.)

**Juglans sieboldiana** Maxim. (Japanese walnut)

78. Leaf erineum ..... *Aceria erineus* (Nal.)  
(Acarina: Eriophyidae)  
(Auckland, November 13, 1951; December, 1951, H. Prew.)

Family LORANTHACEAE

**Elytranthe tetrapetala** (Forst.) Engl.

79. Leaf blister gall 4 mm long ..... insect  
(Mt. Mitre, December 27, 1931, V. D. Zotov. Canterbury, November, 1948, P. A. Lush. National Park, January 28, 1954, S. D. Baker.)

**Korthalsella lindsayi** (Oliv. ex Hook.) Engl.

80. Swollen inflorescence buds, up to 2  
mm diameter ..... gallmite. (*Aceria* sp.)  
(On *Melicope simplex*, Banks Penin., August 20, 1955, A. J. Healy.)

Family LEGUMINOSAE

**Carmichaelia** sp.

81. Cladode swelling 11 mm long, 4 mm  
thick ..... gallmidge  
(Rakaia R., May 3, 1955, A. J. Healy. S. Brighton, Christchurch, December 29, 1954, A. J. Healy.)  
82. Bud galls ..... gallmite  
(S. Brighton, Christchurch, December 29, 1954, A. J. Healy. National Park, March, 1955, B. J. Hooton.)  
83. Flower galls ..... gallmite  
(Rakaia R., April 19, 1955; May 3, 1955, A. J. Healy.)

**Carmichaelia australis** R. Br.

84. Cladode swellings 5-15 mm long, 3  
mm thick (Lamb, 1952) ..... gallmidge  
(Titirangi, Auckland, May, 1948, J. Hastings.)  
85. Grey, pilose bud galls 25 mm dia-  
meter (Lamb, 1952) ..... *Aceria carmichaeliae* Lamb  
(Acarina: Eriophyidae)  
(Laingholm, Auckland, February 12, 1945, E. D. Hatch. W. Coast, Auckland, October 24, 1948, K. P. L. Auckland, November 26, 1954, J. M. Dingley.)

**Carmichaelia ensyii** T. Kirk.

86. Bud galls ..... gallmite. (*Aceria* sp.)  
(National Park, January 28, 1953, F. Duguid.)

**Carmichaelia violacea** T. Kirk (?)

87. Pilose bud galls, 10-15 mm diameter  
(Lamb, 1952) ..... *Aceria carmichaeliae* Lamb  
(Acarina: Eriophyidae)  
(Mt. Cass, Canterbury, April 16, 1943, A. J. Healy. Waipara, Canterbury. June, 1949, P. A. Lush.)

**Clianthus puniceus** Banks & Sol.

88. Light green witches' brooms (Lamb,  
1952) ..... *Aceria clianthi* Lamb  
(Acarina: Eriophyidae)



(Port Chalmers, December 10, 1943, J. W. Woodcock. Auckland, September 16, 1949, Department of Agriculture.)

**Edwardsia microphylla** (Ait.) Salisb.

89. Leaf erineum ..... gallmite  
(Lake Wakatipu, January 16, 1951, S. A. Rumsey.)

90. Leaves folded into monothalms  
galls ..... gallmidge  
(Auckland, December 12, 1939, E. B. Ashcroft. Campbell's Bay, Auckland, October 29, 1950, E. E. Chamberlain. Titirangi, Auckland, November 30, 1952, E. Bray.)

**Edwardsia tetraptera** (Mill.) Oliv.

91. Erineum with abortion and thickening of pinnae ..... gallmite. (*Aceria* sp.)  
(Mahana, Nelson, February, 1959, J. S. Timlin.)

**Sutherlandia frutescens** R. Br.

92. Witches' brooms ..... gallmite. (*Aceria* sp.)  
(Riccarton, Christchurch, December 2, 1956, A. J. Healy.)

## Family MAGNOLIACEAE

**Pseudowintera** sp.

93. Leaf dimple galls 1 mm diameter ..... insect  
(Reefton Saddle, Westland, December 4, 1952, S. D. Baker.)

**Pseudowintera axillaris** (Forst.) Dandy

94. Nail-like pouch galls 5 mm wide, produced adaxially about 8 mm; opening onto abaxial surface of leaf ..... insect  
(Waipoua, January 20, 1955, J. M. Dingley.)

**Pseudowintera colorata** (Raoul) Dandy

95. Leaf dimple gall ..... Coccid  
(Mt. Pleasant, Christchurch, April 28, 1957, L. J. Metcalf.)

## Family MALVACEAE

**Hoheria populnea** A. Cunn.

96. Bud gall 10–20 mm diameter (Lamb, 1952) ..... *Eriophyes hoheriae* Lamb  
(Acarina: Eriophyidae)

(Auckland, September 9, 1940, C. S. W. Reid; August, 1949, K. P. L.; November 6, 1952, E. Dawe. Bay of Islands, March 11, 1949, K. P. L. Titirangi, Auckland, December 2, 1949, E. Bray. Wellington, March, 1950, T. Rough. Te Araroa, October, 1952, H. R. McKenzie. Papakura, Auckland, November 13, 1957, F. J. Lownsbrough. Dunedin, October 26, 1958, M. N. Watt.)

**Hoheria sixtylosa** Col.

97. Bud gall as above ..... *Eriophyes hoheriae* Lamb  
(Acarina: Eriophyidae)

(April, 1932, V. D. Zotov.)

**Plagianthus betulinus** A. Cunn.

98. Witches' brooms in masses up to 10 cm long ..... gallmite  
(Christchurch, February 22, 1952, K. P. L. Trentham, May 19, 1953, A. J. Healy.)

**Plagianthus betulinus x divaricatus**

99. Witches' brooms ..... gallmite  
(Lyttelton, May 18, 1954, A. J. Healy.)

## Family MORACEAE

**Paratrophis microphylla** (Raoul) Ckn.

100. Witches' brooms (Lamb, 1953) ..... *Eriophyes paratrophii* Lamb  
(Acarina Eriophyidae)

(Levin, December, 1949, P. A. Lush.)

## Family MYOPORACEAE

**Myoporum laetum** Forst.

101. Fusiform stem gall, 15 mm long, 10  
mm thick ..... Unknown

(Akaroa, January 30, 1955, A. J. Healy.)

## Family MYRSINACEAE

**Myrsine australis** (A. Rich.) Allan

102. Stem galls 12 mm long, 4 mm thick insect

(Mayor Is., November, 1948, A. U. C. Field Club. Rangitoto Is., August, 1949, D. W. McKenzie. Torbay, Auckland, September 29, 1952, D. W. McKenzie.)

## Family MYRTACEAE

**Acmena smithii** (Poir.) Merr. & Perry

103. Leaf dimple galls and edge rolling ..... *Triozia adventicia* Tut.  
(Tuthill, 1952) ..... (Homoptera: Psyllidae)

(Nelson, September 19, October 20, March 7, Tuthill (*loc. cit.*). Auckland, June 4, 1959, Department of Agriculture.)**Eucalyptus** sp.

104. Stem galls ..... *Rhynopeltella eucalypti* Gah.  
(Hymenoptera: Eulophidae)

(Governors Bay, Christchurch, November, 1938, G. T. S. Baylis.)

**Eucalyptus ficifolia** F. Muell.

105. Stem galls ..... *Rhynopeltella eucalypti* Gah.  
(Hymenoptera: Eulophidae)

(Invercargill, November 20, 1956, F. Wilkin.)

**Eucalyptus globulus** Labill.

106. Stem galls (Miller, 1925) ..... *Rhynopeltella eucalypti* Gah.  
(Hymenoptera: Eulophidae)

107. Youth growth distorted (Tuthill,  
1952) ..... *Ctenarytaina eucalypti* (Mask.)

**Eugenia maire** A. Cunn.

(Homoptera: Psyllidae)

108. Leaf dimple galls ..... ? Psyllid

(Hutt Valley, January 21, 1953, A. J. Healy.)

**Leptospermum scoparium** Forst.

109. Witches' brooms up to 6 cm dia-  
meter (Lamb, 1952) ..... *Aceria manukae* Lamb  
(Acarina: Eriophyidae)

(Moawhango R., Waiouru, October 25, 1943, E. D. Hatch. Eastbourne, Wellington, 1943, E. G. Turbott. Wairoa, October 7, 1948, Department of Agriculture. Coromandel, January, 1949, R. Robbins. Whakatane, July 29, 1949, M. Simpson. Kaingaroa State Forest, 1950. Dannevirke, August, 1951, W. Band. Tairua, Waihi, September 26, 1951. Wellington, January 27, 1955, D. A. Glue; February 1, 1959, W. M. Hamilton.)

**Metrosideros excelsa** Sol. ex Gaertn.

110. Leaf dimple galls (Ferris & Klyver,  
1932) ..... *Trioza curta* (F. & K.)  
(Homoptera: Psyllidae)  
(Rangitoto Is., April 30, 1945, September 30, 1950, M. W. Carter.)

## Family OLEACEAE

**Olea** sp.

111. Leaf dimple galls ..... ? *Rhizococcus fossor* (Mask.)  
(Homoptera: Coccidae)  
(Upper Hutt, November 17, 1952, A. J. Healy.)

## Family PITTOSPORACEAE

**Pittosporum crassifolium** A. Cunn.

112. Leaf dimple gall (Ferris & Klyver,  
1932; Tuthill, 1952) ..... *Trioza vitreoradiata* (Mask.)  
(Homoptera: Psyllidae)

**Pittosporum tenuifolium** Banks & Sol.

113. Leaf dimple gall (Tuthill, 1952) ..... *Trioza vitreoradiata* (Mask.)  
(Homoptera: Psyllidae)  
(Wallaceville, May 12, 1953, A. J. Healy.)

## Family POLYGONACEAE

**Muehlenbeckia australis** (Forst. f.) Meissn.

114. Stem gall (Tillyard, 1926) ..... *Morova subfasciata* Walk.  
(Lepidoptera: Thyrididae)
115. Leaf edge rolling (Ferris & Klyver,  
1932; Tuthill, 1952) ..... *Trioza fasciata* (F. & K.)  
(Homoptera: Psyllidae)  
(Foxton, May, 1950, R. A. Cumber.)
116. Leaf pouch galls ..... gallmite  
(Palmerston North, March 25, 1951, E. Bray. Hutt Valley, February 6, 1953, A. J. Healy.  
Greytown, March 17, 1953, A. J. Healy.)
- Muehlenbeckia axillaris** (Hook. f.) Walp.
117. Red leaf pouch galls ..... gallmite. (*Eriophyes* sp.)  
(Lake Taylor, S. Island, November, 1948, P. A. Lush.)
- Muehlenbeckia complexa** (A. Cunn.) Meissn.
118. Leaf pouch galls ..... gallmite  
(Karekare, Auckland, May, 1951, K. P. L. Wairarapa, March 17, 1953, A. J. Healy.  
Dunedin, March 18, 1959, M. N. Watt.)
- Muehlenbeckia complexa** (A. Cunn.) Meissn. var. **trilobata** (Col.) Cheesem.
119. Leaf pouch galls ..... gallmite  
(Rakaia R., September 18, 1955, A. J. Healy.)

## Family RANUNCULACEAE

**Clematis colensoi** Hook. f.

120. Enlarged, fluffy seedheads ..... unknown  
(Waiouru, December 23, 1943, E. D. Hatch.)
121. Pouch galls, sometimes covering  
whole leaf ..... ? gallmidge  
(Rangipo Desert, February 13, 1944, E. D. Hatch.)

## Family ROSACEAE

**Acaena sanguisorbae** Vahl.

122. Monothalamous pocket galls up to  
1 mm diameter ..... ? gallmidge  
(Te Kuiti, January 23, 1954, S. D. Baker.)

**Malus sylvestris** (L.) Mill. (Apple)

123. Woody stem galls (Cottier, 1953) *Eriosoma lanigerum* (Hausm.)  
(Homoptera: Eriosomatidae)
124. Leaf edge curling or rolling (Morri-  
son, 1953) ..... *Dasyneura mali* Kieff.  
(Diptera: Cecidomyiidae)

**Pyrus communis** L. (Pear)

125. Leaf pocket galls, often reddish in  
colour ..... *Eriophyes pyri* (Pgst.)  
(Acarina: Eriophyidae)  
(Levin, May, 1945, L. Lannie. Mt. Albert, Auckland, December 22, 1948. K. P. L.  
Alexandra, November 6, 1950, Department of Agriculture. Matangi, Hamilton, February 15,  
1951, Department of Agriculture. Auckland, February 10, 1953, S. A. Rumsey.)
126. Curling and distortion of young  
leaves (Miller, 1921) ..... *Dasyneura pyri* (Bouchè)  
(Diptera: Cecidomyiidae)

**Rubus** sp.

127. Stem galls 2.5 mm wide, 5 mm long,  
monothalamous ..... insect  
(Christchurch, July 3, 1954, A. J. Healy.)

**Rubus australis** Forst. f.

128. Leaf erineum ..... gallmite  
(Stewart Is., February, 1954, J. M. Dingley.)

**Rubus cissoides** A. Cunn.

129. Leaf erineum ..... gallmite  
(Trentham, May 19, 1953, A. J. Healy.)

**Rubus schmidelioides** A. Cunn.

130. Leaf erineum ..... gallmite  
(Trentham, March 25, 1953, A. J. Healy.)

**Rubus squarrosus** Fritsch. var. *pauperatus* T. Kirk.

131. Woody, polythalamous stem galls up  
to 18 mm diameter and 55 mm  
long ..... gallmidge  
(Te Araroa, October, 1952, H. K. McKenzie.)

## Family RUBIACEAE

**Coprosma** sp.

132. Stem galls ..... gallmidge  
(Canterbury, November, 1948, P. A. Lush.)
133. Bud rosette gall ..... gallmidge  
(National Park, January, 1951, J. M. Dingley.)
134. Pilose bud gall ..... *Aceria cottieri* Lamb  
(Acarina: Eriophyidae)  
(Dunedin, October 26, 1958, M. N. Watt.)
135. Monothalamous, terminal bud gall,  
7 mm diameter ..... ? gallmidge  
(South Westland, November 3, 1954, J. M. Dingley.)

136. Leaf erineum ..... gallmite  
(Otara, Invercargill, January 31, 1956, A. J. Healy. Queen Charlotte Sound, February, 1959, V. J. Chapman.)
- Coprosma arborea** T. Kirk
137. Bud rosette gall, 25 mm diameter .....  
(Barnes & Lamb, 1954) ..... *Oligotrophus coprosmae* B. & L.  
(Diptera: Cecidomyiidae)  
(Titirangi, Auckland, September 3, 1950, E. Bray.)
- Coprosma areolata** Cheesem.
138. Woody stem gall ..... gallmidge  
(Waitakere Ra., September 29, 1950, W. Cottier. Torbay, Auckland, September 29, 1952, D. W. McKenzie.)
139. Bud rosette gall ..... gallmidge  
(Lyttelton, April 28, 1957, L. J. Metcalf.)
- Coprosma australis** (A. Rich.) Robinson
140. Leaf erineum (Lamb, 1952) ..... *Phyllocoptes coprosmae* Lamb  
(Acarina: Eriophyidae)
- Coprosma crassifolia** Col.
141. Bud rosette gall ..... gallmidge  
(Bethells Beach, Auckland, August 13, 1950, R. Close.)
142. Fusiform, woody, polythalamous stem galls, 30 mm long, 10 mm thick (Barnes & Lamb, 1954) ..... *Kiefferia coprosmae* B. & L.  
(Diptera: Cecidomyiidae)  
(Bethells Beach, Auckland, August 13, 1950, R. Close.)
- Coprosma foetidissima** Forst.
143. Leaf pocket galls ..... gallmite  
(National Park, May 3, 1951, E. Bray.)
144. Flower galls ..... unknown  
(Stewart Is., February, 1954, J. M. Dingley.)
- Coprosma linariifolia** Hook. f.
145. Woody stem galls ..... gallmidge  
(National Park, May, 1949, V. J. Chapman.)
- Coprosma linariifolia x parviflora**
146. Bud galls ..... gallmite  
(Waitangi Valley, Waiouru, August 8, 1943, E. D. Hatch.)
- Coprosma obconica** T. Kirk
147. Woody stem galls ..... gallmidge  
(Reservoir camping ground, Nelson, January 31, 1951, S. A. Rumsey.)
- Coprosma parviflora** Hook. f.
148. Pilose, grey bud galls (Lamb, 1952) ..... *Aceria cottieri* Lamb  
(Acarina: Eriophyidae)  
(National Park, June 2, 1943, E. D. Hatch. South Canterbury, July 5, 1956, A. J. Healy.)
149. Woody stem galls ..... gallmidge  
(National Park, May, 1949, V. J. Chapman.)
150. Leaf pouch galls ..... gallmite  
(Mt. Egmont, 3,200ft, March 25, 1951, J. M. Dingley.)
- Coprosma propinqua** A. Cunn.
151. Bud galls sometimes developing into short witches' brooms (Lamb, 1925) ..... *Aceria cottieri* Lamb  
(Acarina: Eriophyidae)

(Foxton, April 14, 1932, V. D. Zotov. Canterbury, November, 1948, P. A. Lush. Kaihere, July 12, 1949, J. Hoy. Awakino R., Dargaville, 1949, F. J. Newhook. Dunedin, July 11, 1951, S. A. Rose. Te Aroha, October, 1952, H. R. McKenzie.)

**Coprosma pseudocuneata** Oliv.

152. Bud galls ..... *Aceria cottieri* Lamb  
(Acarina: Eriophyidae)

(National Park, 3,800ft, November, 1949, K. P. L. Port Ross, Auckland Is., November 8, 1954, N. T. Moar.)

**Coprosma rhamnoides** A. Cunn.

153. Bud galls ..... insect  
(Beech forest, Upper Hutt, February 3, 1953, A. J. Healy.)

**Coprosma robusta** Raoul

154. Fruit galls; pale green proliferation  
of pericarp (Lamb, 1952) ..... *Aceria cottieri* Lamb  
(Acarina: Eriophyidae)

(Purewa, Auckland, June, 1949, D. W. McKenzie.)

155. Pouch galls 1 mm diameter, mostly  
on adaxial surface of leaves ..... gallmite  
(Belmont, 1933. Wharanui, February 11, 1956, L. J. Dumbleton.)

156. Leaf erineum (Lamb, 1952) ..... *Phyllocoptes coprosmae* Lamb  
(Acarina: Eriophyidae)  
(Titirangi, Auckland, June 8, 1943, M. W. Carter. Auckland, July, 1949, E. Bray.)

**Coprosma rotundifolia** A. Cunn.

157. Woody stem galls ..... gallmidge  
(Upper Hutt, December 17, 1952, A. J. Healy.)

**Coprosma tenuicaulis** Hook. f.

158. Purplish, papillate leaf galls ..... gallmite  
(Upper Hutt, April 2, 1952, December 17, 1952, A. J. Healy.)  
159. Stem galls ..... gallmidge

Family **RUTACEAE**

**Melicope simplex** A. Cunn.

160. Leaf erineum ..... gallmite  
(Kaituna, Banks Pen., August 20, 1955, A. J. Healy.)

**Melicope ternata** Forst.

161. Leaf erineum ..... gallmite  
(Trentham, March 25, 1953, A. J. Healy.)

Family **SALICACEAE**

**Populus nigra** L. var. *italica* Du Roi

162. Petiole galls, monothalamous  
(Miller, 1920; Cottier, 1953) ..... *Pemphigus bursarius* (L.)  
(Homoptera: Eriosomatidae)

(Feilding, December 17, 1931, W. D. Reid. Christchurch, December 6, 1933, B. G. Goodwin. Moawhango, February 6, 1935, Mr. Lange. Hastings, December 4, 1945, T. Conway.)

**Salix** sp. (willow)

163. Red, bean-shaped, leaf galls (Mug-  
geridge, 1931) ..... *Pontania proxima* Lep.  
(Hymenoptera: Tenthredinidae)

(Dunedin, March 21, 1938, G. H. McIndoe. Wanganui, 1948, J. Hiscock. Tapawera, Nelson, January, 1949, P. R. Fry.)

**Salix babylonica** L.

164. Reddish, bean-shaped leaf galls, 7  
mm long, 4 mm wide ..... *Pontania proxima* Lep.  
(Hymenoptera: Tenthredinidae)  
(Wellington, November, 1952, J. M. Dingley.)

## Family SANTALACEAE

**Fusanus cunninghamii** Benth. & Hook.

165. Leaf dimple galls (Maskell, 1883) *Rhizococcus fessor* Mask.  
(Homoptera: Coccidae)

## Family SAXIFRAGACEAE

**Carpodetus serratus** Forst.

166. Leaf erineum ..... gallmite  
(Titirangi, Auckland, May, 1951, December, 1951, E. Bray. Upper Hutt, April 1, 1952, A. J. Healy. Tautuka Beach, Otago, January 24, 1957, J. M. Dingley.)  
167. Stem, leaf, petiole or fruit gall; oval,  
smooth, polythalamous (Lamb, 1952) gallmidge  
(Laingholm, Auckland, January 23, 1944, E. D. Hatch. Waitakere Ra., Auckland, K. P. L. Reservoir camping ground, Nelson, January 31, 1951, S. A. Rumsey. Queen Charlotte Sound, February, 1959, V. J. Chapman.)  
**Ribes grossularia** L. (gooseberry)  
168. Aborted and thickened leaves ..... *Eriophyes ribis* (Westw.)  
(Acarina: Eriophyidae)  
(Edgecumbe, October, 1951, M. Land.)

**Ribes nigrum** L. (Blackcurrant)

169. Greatly swollen buds ..... *Eriophyes ribis* (Westw.)  
(Acarina: Eriophyidae)  
(No data, 1948. Levin, November, 1951, C. S. Richardson. Christchurch, June 15, 1959, C. S. Richardson.)

## Family SCROPHULARIACEAE

**Hebe** sp.

170. Stem gall ..... gallmidge  
(Waiouru, August 9, 1943, E. D. Hatch.)  
**Hebe buxifolia** (Benth.) Ckn. & Allan  
171. Enlarged terminal buds ..... unknown  
(National Park, July, 1951, E. Bray.)  
172. Stem gall ..... gallmidge  
(Porters Pass, Canterbury, April 29, 1959, B. P. J. Molloy.)  
**Hebe laevis** (Benth.) Ckn. & Allan  
173. Enlarged terminal buds ..... unknown  
(Waiouru, May 3, 1943, E. D. Hatch. National Park, January 28, 1954, F. Duguid.)  
**Hebe salicifolia** (Forst. f.) Pennell  
174. Leaf gall; swelling along main vein,  
10 mm long, 4 mm thick, 8 mm wide  
(Lamb, 1951) ..... *Dasyneura hebefolia* Lamb  
(Diptera: Cecidomyiidae)  
(Mayor Is., November, 1948, S. A. Rumsey.)  
175. Woody stem galls, polythalamous  
(Lamb, 1952) ..... gallmidge  
(Rangitoto Is., Auckland, April, 1948; June, 1949, K. P. L. Wellington, July 14, 1948, K. P. L. Christchurch, November, 1948, K. P. L. Mayor Is., November, 1948, December, 1948, S. A. Rumsey.)

176. Leaf dimple gall (Tuthill, 1952) ..... *Trioza hebicola* Tuthill  
(Homoptera: Psyllidae)  
(Wellington, July, 1948, K. P. L. National Park, December, 1951, L. D. Tuthill.)
- Hebe salicifolia** (Forst. f.) Pennell. var. *atkinsoni* (Ckn.) Ckn. & Allan
177. Stem gall 34 mm long, 14 mm thick gallmidge  
(Lake Rotoiti, January, 1951, S. A. Rumsey.)

## Family SOLANACEAE

**Lycium ferocissimum** Miers

178. Enlarged buds ..... unknown  
(Hurunui R., September 3, 1958, A. J. Healy.)

## Family THYMELAEACEAE

**Pimelea** sp.

179. Witches' brooms ..... ? gallmite  
(Cass, Canterbury, April 3, 1957, C. J. Burrows.)

**Pimelea prostrata** (Forst.) Willd.

180. Witches' brooms ..... ? gallmite  
(Kaimanawa Ra., April 17, 1955, J. M. Dingley.)

## Family ULMACEAE

**Ulmus glabra** Huds.

181. Leaf gall (Miller, 1925) ..... *Eriosoma lanuginosum* (Hart.)  
(Homoptera: Eriosomatidae)

**Ulmus thomasi** Sarg.

182. Leaf gall (Cottier, 1953) ..... *Eriosoma lanuginosum* (Hart.)  
(Homoptera: Eriosomatidae)  
(Hastings, December 2, 1935, December 22, 1936, W. Cottier.)

## Family URTICACEAE

**Urtica ferox** Forst. f.

183. Pilose leaf pouch galls 2-3 mm diameter ..... gallmite  
(Hutt R., Trentham, March 25, 1953; May 19, 1953; A. J. Healy. Kapiti Is., Wellington, January 21, 1953; R. R. Russell. Banks Penin., Christchurch, December 4, 1956, A. J. Healy.)

## Family VERBENACEAE

**Avicennia officinalis** L.

184. Leaf erineum (Lamb, 1952) ..... *Aceria avicenniae* Lamb  
(Acarina: Eriophyidae)  
(Auckland, January 19, 1950, K. P. L.; September 8, 1957, S. A. Rumsey. Rangitoto Is., Auckland, June 12, 1954, S. D. Baker.)

**Vitex lucens** T. Kirk

185. Leaf erineum (Lamb, 1952) ..... *Aceria australis* Lamb  
(Acarina: Eriophyidae)  
(Tauranga, September 8, 1939, I. L. Nottage. Titirangi, Auckland, August, 1949, E. Bray. Hastings, November, 1950, E. R. Taylor.)

## Family VIOLACEAE

**Melicytus ramiflorus** Forst.

186. Flower galls; flowers converted into leaf-like straps up to 10 mm long  
(Lamb, 1953) ..... *Aceria melicyti* Lamb  
(Acarina: Eriophyidae)



(Rangitoto Is., Auckland, June 25, 1950, E. Bray. Waitakere Ra., Auckland, February 28, 1958, J. A. Hunter.)

187. Leaf edge rolling (Lamb, 1953) ..... gallmite  
(? *Aceria melicyti* Lamb)

(Titirangi, Auckland, no date.)

#### Family VITACEAE

*Vitis vinifera* L. (Grape)

188. Leaf erineum (Woodfin, 1927) ..... *Eriophyes vitis* (Pgst.)  
(Acarina: Eriophyidae)

(Te Kauwhata, April 8, 1949, Department of Agriculture. Gisborne, January, 1958, Department of Agriculture.)

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<i>Dracophyllum</i> sp.	55	<i>Olearia avicenniaefolia</i>	39, 40
<i>Dracophyllum recurvum</i>	56	<i>Olearia ilicifolia</i>	41
<i>Dracophyllum subulatum</i>	57	<i>Olearia lacunosa</i>	42
<i>Edwardsia microphylla</i>	89, 90	<i>Olearia nummularifolia</i>	43
<i>Edwardsia tetraptera</i>	91	<i>Olearia solandri</i>	44
<i>Elaeocarpus dentatus</i>	54	<i>Olearia virgata</i>	45
<i>Elytranthe tetrapetala</i>	79	<i>Paratrophis microphylla</i>	100
<i>Eucalyptus</i> sp.	104	<i>Parsonsia</i> sp.	7
<i>Eucalyptus ficifolia</i>	105	<i>Parsonsia capsularis</i>	8
<i>Eucalyptus globulus</i>	106, 107	<i>Parsonsia heterophylla</i>	9, 10
<i>Eugenia maire</i>	108	<i>Pennantia corymbosa</i>	76
<i>Fusanus cunninghamii</i>	165	<i>Phyllocladus alpinus</i>	5
<i>Gaultheria antipoda</i>	58	<i>Phyllocladus trichomanoides</i>	6
<i>Gaultheria depressa</i>	59	<i>Pimelea</i> sp.	179
<i>Gleichenia circinata</i>	2	<i>Pimelea prostrata</i>	180
<i>Gleichenia microphylla</i>	3	<i>Pittosporum crassifolium</i>	112
<i>Griselinia lucida</i>	50	<i>Pittosporum tenuifolium</i>	113
<i>Haloragis</i> sp.	71	<i>Plagianthus betulinus</i>	98
<i>Haloragis depressa</i>	72	<i>Plagianthus betulinus</i> x <i>divaricatus</i>	99
<i>Haloragis erecta</i>	73	<i>Populus nigra</i> var. <i>italica</i>	162
<i>Haloragis micrantha</i>	74	<i>Pseudowintera</i> sp.	93
<i>Haloragis procumbens</i>	75	<i>Pseudowintera axillaris</i>	94

<i>Pseudowintera colorata</i>	95	<i>Salix</i> sp.	163
<i>Pyrrosia serpens</i>	4	<i>Salix babylonica</i>	164
<i>Pyrus communis</i>	125, 126	<i>Shawia paniculata</i>	47, 48
<i>Raoulia lutescens</i>	46	<i>Sonchus oleraceus</i>	49
<i>Ribes grossularia</i>	168	<i>Sutherlandia frutescens</i>	92
<i>Ribes nigrum</i>	169	<i>Ulmus glabra</i>	181
<i>Rubus</i> sp.	127	<i>Ulmus thomasii</i>	182
<i>Rubus australis</i>	128	<i>Urtica ferox</i>	183
<i>Rubus cissoides</i>	129	<i>Vitex lucens</i>	185
<i>Rubus schmidelioides</i>	130	<i>Vitis vinifera</i>	188
<i>Rubus squarrosus</i> var. <i>pauperatus</i>	131	<i>Wahlenbergia marginata</i> var. <i>australis</i>	21
<i>Salicornia australis</i>	23	<i>Weinmannia racemosa</i>	52

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