

HIGHER PLANTS (LYCOPODS, FERNS, GYMNOSPERMS, FLOWERING PLANTS) OF  
NGAMATEA E. SWAMP<sup>1</sup>, TIKITIKI BUSH<sup>2</sup>, L. HOROTEKA<sup>3</sup>, AND UPPER  
TARUARAU V.<sup>4</sup>, SOUTHERN KAIMANAWA MTS.

2700-3800 FT / 825-1150 M

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A.P. Druce, Botany Division, D.S.I.R., 1972

(revised Apr. 1974, Oct. 1974, July 1975, Dec. 1975, Jan. 1976, July 1976,  
May 1977, June 1979, June 1980, Aug. 1981, Nov. 1982, Apr. 1983,  
Nov. 1983, June 1984, May 1985, July 1985, May 1986, Nov. 1986,  
June 1987, Aug. 1988, June 1990, June 1991, July 1992)  
(Based on visits 1949, 1950, 1975, 1976, 1981, 1983, 1985, 1991)

(unc) - uncommon

\* - present in Ngamatea

East Swamp

(\*) - uncommon in Swamp

5 miles

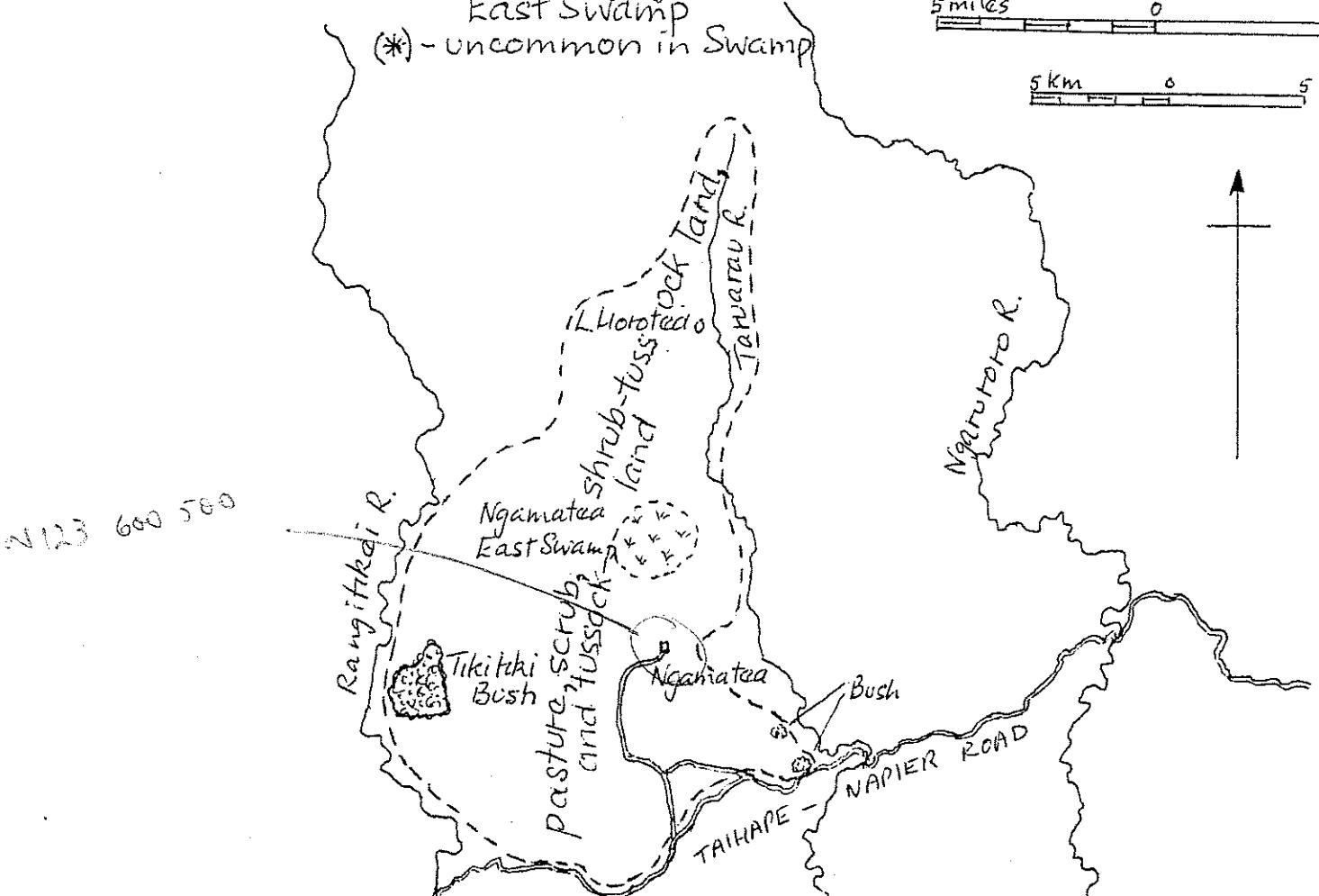
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5 km

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## INDIGENOUS PLANTS

### GYMNOSPERM TREES AND SHRUBS

- Halocarpus bidwillii* (unc)
- Lagarostrobos colensoi* (unc)
- (\*) *Lepidothamnus laxifolius* (unc)
- Libocedrus bidwillii* (unc)
- Phyllocladus alpinus* s.s. (unc)

- Podocarpus hallii* (unc)
- P. hallii* × *P. nivalis* (unc)
- Prumnopitys ferruginea* (unc)

### MONOCOT TREES

- Cordyline australis* (unc)

### DICOT TREES

- Aristotelia serrata* (unc)
- Carpodetus serratus* (unc)
- Elaeocarpus hookerianus* (unc)
- Fuchsia excorticata* (unc)
- Griselinia littoralis* (unc)
- Nothofagus fusca*
- N. solandri* var. *cliffortioides*
- Pittosporum tenuifolium* ssp. *tenuifolium* (unc)
- Pseudopanax colensoi* s.s. (unc)
- P. crassifolius* (unc)
- P. simplex* (incl. *P. s.* var. *sinclairii*)
- Sophora tetaptera* (unc)

### DICOT SHRUBS

- Aristotelia fruticosa* var. *mictophylla*
- Brachyglottis repanda* ss. (unc)
- Carmichaelia arborea* var. (*C. odorata*) (unc)
- C. enysii* var. *orbiculata* (unc)
- (\*) *C. sp.* (subgenus *Carmichaelia*)
- \* *Cassinia vauvilliersii*
  
- Coprosma acerosa* ssp.
- \* *C. cheesemanii* s.s.
- C. colensoi* s.s.
- C. foetidissima* (unc)
- C. grandifolia* (unc)
- C. linariifolia*
- C. lucida* s.s. (unc)
- C. microcarpa*
- \* *C. petriei*
- C. propinqua* ssp. *propinqua*
  
- C. pseudocuneata* ssp. *pseudoe.* (unc)
- C. thamnocephala* (incl. *C. polymorpha*)
  
- C. robusta* (unc)
- C. rugosa* ssp. *rugosa*
- C. tenuifolia*
- C. sp.* (unnamed; included in *C. parviflora* by Oliver, 1935, and others) (If undersurface not minutely hairy as is us. in *C. parviflora*; drupes vs. un-pigmented, occ. purplish red)
- C. propinqua* × *C. robusta*)

- Corokia kingiana*  
*C. pteridoides*  
*C. arborea* × *C. pteridoides*  
*C. kingiana* × *C. pteridoides*  
*Corokia cotoneaster* var. *cotoneaster* *O. nummulariifolia* var. *nummulariifolia*  
\* *Cyathodes empetrifolia*  
*C. sp. (C. juniperina agg.)* (lvs small,  
vs. < 1 cm × < 1 mm)  
*Dracophyllum recurvum* (unc)  
\* *D. subulatum*  
*Epacris alpina*  
*Gaultheria antipoda*  
\* *G. macrostigma*  
*G. sp. (unnamed)*; included in *G.*  
*depressa*, as var. *novae-zelandiae*,  
(\*) *G. macrostigma* × *G. sp. (unnamed)* by Franklin (1962) *Pittosporum divaricatum* (incl. *P.*  
*lineare*) (unc)  
*Hebe colensoi* (incl. *H. c. var. hillii*) (unc) *Pseudopanax anomalus*  
(\*) *H. stricta* var. *stricta* *Pseudowintera colorata*  
*H. tetragona* var. *tetragona* (unc)  
*H. venustula* (incl. *H. brachysiphon*) **DICOT LIANES AND RELATED**  
*H. sp. (i)* (*Veronica arborea*) (unc)  
*H. sp. (ii)* (*Veronica squalida*) **TRAILING PLANTS**  
*Korthalsella clavata* (unc) *Clamatis forsteri*  
*Kunzea ericoides* agg.  
\* *Leptospermum scoparium*  
*Leucopogon fasciculatus* var.  
\* *L. fraseri* s.s.  
\* *L. suaveolens* (incl. *Cyathodes colensoi*)  
*Melicytus alpinus* s.s.  
*Myrsine divaricata* s.s.  
*Neomyrtus pedunculata* (unc)  
*Olearia arborescens* (unc)  
*O. furfuracea* var.  
\* *O. virgata* var. (lvs smaller than in  
var. *virgata*)  
\* *Pentachondra pumila*  
\* *Pimelea prostrata*  
*Pittosporum divaricatum* (incl. *P.*  
*lineare*) (unc)  
*Pseudopanax anomalus*  
*Pseudowintera colorata*  
*C. paniculata* (unc)  
(\*) *C. quadibracteolata* (unc)  
*Muehlenbeckia axillaris*  
*Parsonsia capsularis* var.  
*Rubus cissoides* var. (leaflets  
narrower than in var. *cissoides*)  
*R. schmidelioides* var. *schmidelioides* (unc)

### LYCOPODS

- Lycopodium australe* (unc)
- \* *L. fastigiatum*
- L. scariosum* (unc)
- L. volubile* (unc)

### FERNS

- Adiantum cunninghamii* (unc)
- Asplenium flabellifolium* agg.
- A. flaccidum*
- A. gracillimum*
- A. hookerianum*
- A. polyodon* (unc)
- A. richardii*
- A. terrestre* ssp. *terrestre*
- Blechnum chambersii* (unc)
- B. colensoi* (unc)
- \* *B. fluviatile* agg.
- \* *B. minus*
- \* *B. penna-marina*
- B. procerum*
- B. vulcanicum* (unc)
- B. sp.(i)* (unnamed) (common sp.; lower pinnae reduced in length) (unc)
- B. sp.(ii)* (unnamed) (mountain sp.; lower pinnae not reduced) (unc)
- B. sp.(iii)* (unnamed) (cliff sp.; lower pinnae not reduced) (unc)
- (\*) *Botrychium australe* (unc)
- Chilantches humilis*
- Ctenopteris heterophylla*
- \* *Glaichenia dicarpa*

- Grammitis billardierei* (unc)
- G. patagonica* (unc)
- Histeropteris incisa* (unc)
- Hymenophyllum multifidum*
- H. sanguinolentum* ags. (unc)
- Hypolepis rufobarbata* (unc)
- Laptopteris hymenophylloides* (unc)
- L. superba* (unc)
- \* *Ophioglossum coriaceum* agg.
- Paesia scaberula* (unc)
- Phymatosorus pustulatus* (unc)
- Pneumatopteris pennigera* (unc)
- Polystichum richardii* (unc)
- P. vestitum*
- Pteridium esculentum*

### ORCHIDS

- (\*) *Aporostylis bifolia*
- Caladenia carneola* agg. (unc)
- Chiloglottis cornuta*
- \* *Cotybas macranthus*
- (\*) *C. oblongus*
- C. trilobus* s.s.
- (\*) *Gastrodia cunninghamii* (unc)
- (\*) *Microritis oligantha* (unc)
- \* *M. unifolia*
- Orthoceras novae-zeelandiae* (unc)
- \* *Prasophyllum colensoi*
- (\*) *P. sp. (aff. P. patens)* (unc)
- Pterostylis patens*
- P. sp. (unnamed; aff. P. graminea and P. montana)* (unc)

- \**The lymitia cyanea*
- T. decora* (unc)
- T. formosa* (unc)
- \**T. hatchii*
- \**T. longifolia*

- \**L. sp.(i)(unnamed)* (tall, slender; lvs narrow; awns short)
- \**L. sp.(i)(unnamed)*; included in *L. filiformis*, as var. *semiglabria*, by Zofov 1965
- Microlaena avenacea*
- \**M. stipoides*
- \**Poa anceps* ssp. *anceps*  
*P. breviglumis*
- \**P. cita* ssp.
- \**P. colensoi*

### GRASSES

- Agrostis muscosa* (unc)
- \**Chinochloa rubra* ssp. *rubra*  
*C. r. × C. pallens* (unc)
- \**Cortaderia fulvida*
- \**Deschampsia caespitosa* var. *macrantha*  
*D. tenella*
- \**Deyeuxia aenoides* (incl. *D. a.* var. *brachyantha*)
- \**D. sp.*(*D. quadriseta* agg.) (lvs narrow)
- (\*)*Dichelachne cinnita* (unc)

- Rytidosperma australe* (unc)
- R. buchananii* (unc)
- \**R. clavatum*
- \**R. gracile*
- (\*)*R. metrum* (unc)
- (\*)*R. pumilum* (unc)  
*R. setifolium*
- (\*)*Trisetum* sp. (i) (unnamed; aff. *T. antarcticum*) (lf sheath densely hairy; lf blade margins with hairs)
- T. sp. (ii)* (unnamed; aff. *T. antarcticum*) (lf sheath glabrous at least in upper part; lf blade margins scabrid)
- \**Zoysia minima*

### SEDGES

- Elymus hardyioides* (unc)
- E. tenuis*
- \**E. sp.*(aff. *E. rectisetus*) (Series II, Group Waiouru, of Löve & Connor, 1982)
- \**Festuca novae-zelandiae* var.
- \**Hierochloa redolans*  
*Koeleria cheesemanii* (unc)
- Lachnagrostis filiformis* s.s.
- \**L. stricta*

- \**Baumea rubiginosa*
- Carox astonii* (unc)
- \**C. breviculmis*
- C. buchananii* (unc)
- C. colensoi* (unc)
- C. comans*
- \**C. coriacea*
- \**C. diandra*
- \**C. dipsacea* var. (*C. tahtata*)
- C. dissita* s.s.
- \**C. echinata* var. (*C. stellulata* var. *australis*)
- C. flagellifera* (unc)

- \* *C. gaudichaudiana*
- (\*) *C. inversa* (unc)
- C. maotica*
- C. petriei* (unc)
- C. rubicunda* (unc)
- \* *C. secta* s.s.
- C. sinclairii*

- C. testacea* s.s. (unc)
- C. virgata*
- \* *Carpha alpina* s.s.
- \* *Eleocharis acuta*
- \* *E. gracilis*
- \* *E. sphacelata*
- \* *Isolepis crassiuscula*
- \* *I. fluitans*
- I. habra*
- I. pottsii*
- (\*) *I. subfilissima*
- \* *Lepidosperma australe*
- \* *Oreobolus pectinatus*
- \* *Schoenus concinnus*
- \* *S. fluitans*
- \* *S. pauciflorus* s.s. (= "slender form" of  
Edgar 1970, p. 194)

- Uncinia clavata*
- U. farruginea*
- \* *U. rubra*
- U. rupestris* (incl. *U. angustifolia*)
- U. scabra*
- (\*) *U. strictissima* (unc)
- U. uncinata*

### RUSHES

- \* *Centrolepis ciliata*
- \* *Empodisma minus*
- \* *Juncus fragiflorus*
- (\*) *J. holoschoenus* (unc)
- J. novae-zelandiae*
- \* *J. pusillus*
- \* *Luzula decipiens*
- L. migrata*
- L. subclarata*
- L. sp. (unnamed; included in *L. picta*, as var. *limosa*, by Edgar 1966)*

### MONOCOT HERBS (OTHER THAN ORCHIDS)

#### GRASSES, SEDGES, RUSHES

- Astelia fragrans* (unc)
- Bulbinella hookeri* (unc)
- \* *Harpolirion novae-zelandiae*
- \* *Lemna* sp. (*L. minor* auct. N.Z.)
- (\*) *Phormium cookianum*
- Potamogeton cheesemanii*
- \* *P. suboblongus*
- \* *Triglochin striata*
- Typha orientalis* (unc)

### COMPOSITE HERBS

- Anaphalis (see p.)
- Brachyglottis lagopus* var. *lagopus*
- \* *Celmisia glandulosa* ssp. *glandulosa* (incl. *C. g.* var. *latifolia*)
- \* *C. gracilenta* ssp.
- (\*) *C. spectabilis* ssp. *spectabilis*
- \* *C. sp. (unnamed; aff. *C. gracilenta*)*  
(plants strongly rhizomatous)

- (top 6) *Anaphalis* sp.(i) (*Helichrysum bellidioides* s.s.)  
*A.* sp.(ii) " *Helichrysum alpinum*"  
 of Cockayne 1928  
*A.* sp.(iii) (unnamed; aff. *A. keriensis*)  
 (lvs shorter, capitula smaller  
 than in *A. keriensis*)
- \* *Craspedia minor* var. *minor* (incl. *C. major*) \* *R. sp. (ii)* (unnamed) (lvs small, grey;  
*C. viscosa* (unc) inner phyllaries black-tipped) (unc)  
*R. glabra* (unc)  
*R. tenuicaulis* (incl. *R. t. var.*  
*dimorpha* and *R. t. var. pusilla*)  
*C. R. sp. (i)* (unnamed; aff. *R. austialis*)  
*R. albosericea* × *R. sp. (i)* (unc)  
 (\*) *Scenecio glaucophyllus* ssp.  
*toa* (unc)  
*S. glomeratus*  
 (\*) *S. minimus* (unc)  
*S. rufiglandulosus* var. *rufigland-*  
*ulosus* (unc)  
 (\*) *S. wairauensis* (unc)  
\* *Vittadinia australis* agg.

#### DICOT HERBS (OTHER THAN COMPOSITES)

- \* *Gnaphalium audax*  
\* *G. didicatum*  
\* *G. limosum* s.s.  
*G. ruahinicum*  
\* *G. traversii*  
\* *Helichrysum filicaule*
- Laptinella pusilla*  
\* *L. sp.* (*L. squamida* agg.)
- Lagenifera cuneata*  
\* *L. montana* (unc)  
*L. pinnatifida* (unc)  
\* *L. pumila*  
*L. strangulata*  
\* *Microseris scapigera* var.  
(\*) *Pseudognaphalium* sp. (unnamed; aff. *P. luteoalbum*) (lvs mostly linear-  
 spatulate to linear, acute)
- (\*) *Raoulia albosericea*
- Acaena anserinifolia*  
*A. juvenca*  
\* *A. microphylla* var. *microphylla*
- \* *Aciphylla* sp. (unnamed; aff. *A. squarrosa*)  
*Anisotome aromatica*
- Cardamine* sp.(i) (*C. debilis* agg.)  
("Narrow Petal" of Pritchard 1957)
- \* *C. sp. (ii)* (aff. *C. corymbosa*)  
\* *Centella uniflora*  
*Colobanthus strictus*  
*Cicindula* sp. (cf. *C. sieberiana*  
 and *C. tetramera*)

- \* *Dichondra* sp. (unnamed; aff. *D. brevis*)
- \* *Diosera binala*
- \* *D. pygmaea*
- D. spathulata*
- \* *Epilobium alsinoides* s.s.
- E. acutum*
- E. atriplicifolium* s.s.
- E. billardiereanum* s.s.
- E. brunneescens* s.s.
- \* *E. chionanthum*
- \* *E. cinereum*
- E. hectorii* s.s. (unc)
- \* *E. insulare*
- E. komarovianum* (unc)
- E. linnacoides*
- E. melanocaulon*
- E. microphyllum*
- \* *E. heteroides*
- (\*) *E. nummulariaefolium* (unc)
- \* *E. pallidiflorum*
- (\*) *E. pedunculare* s.s.
  
- E. pubens*
- E. rotundifolium*
- \* *E. tenuipes* ss.
- E. sp.* (unnamed; included in *E. brunneescens*, as ssp. *minutiflorum*, by Raven & Engelmorn, 1971) (unc)
- \* *Euphrasia cuneata*
- \* *E. zelandica* agg.
  
- \* *Gentiania grisebachii* s.s.
- G. sp. (unnamed)* (aff. *G. microphyllum*)
- \* *G. potentilloides* var. *potentilloides*
- \* *G. sessiliflorum* var. *sessiliflorum*
- Glossostigma elatinoides* (unc)
- Gonocarpus aggregatus*
- \* *G. micranthus* ssp. *micranthus*
- Gunnera dentata* var. *dentata*
- (\*) *G. procumbens*
- Hydrocotyle elongata*
- H. heteromeria* (unc)
- \* *H. hydrophila*
- \* *H. mictophylla*
- H. moschata*
- \* *H. sulcata*
- \* *H. sp.* (unnamed; included in *H. novaezealandiae*, as var. *montana*, by Kirk 1899) var.
- \* *Hypericum japonicum* agg.
- \* *H. sp.* (unnamed) (much smaller than *H. japonicum*)
- (\*) *Kelleria laxa* (unc)
  
- \* *Lilacopsis tuttiana*
- Linum monogynum* (unc)
- \* *Mentha cunninghamii*
- \* *Montia fontana* s.s.
- \* *Myosotis forsteri*
- M. sp.* (unnamed; aff. *M. pygmaea*)

	* <i>Rumex flexuosus</i>
* <i>Myrsophyllum pedunculatum</i> ssp. <i>novae-zelandiae</i>	<i>Scandia</i> sp. ( <i>S. rosifolia</i> agg.) (leaflets ovate lanceolate)
<i>M. propinquum</i>	<i>Schizolema colensoi</i>
* <i>Nertera ciliata</i> .	* <i>S. nitens</i>
* <i>N. setulosa</i>	* <i>Scleranthus uniflorus</i>
<i>N. sp.</i> (unnamed; aff. <i>N. dichondri-<sup>ramesa</sup></i> ) folia) (hairs present on both sur- faces of lf, straight, not hooked as in <i>N. dichondrifolia</i> )	* <i>Selliera microphylla</i> * <i>Stackhousia minima</i> <i>Stellaria decipiens</i> (incl. <i>S. parvi- flora</i> )
* <i>Oreomyrrhis</i> sp.(i) (unnamed; aff. <i>O.<sup>ramesa</sup></i> )	<i>Urtica incisa</i>
<i>O. sp.</i> (ii) (unnamed; included in <i>O.<sup>ramesa</sup></i> ) <i>colensoi</i> , as var. <i>delicatula</i> , by Allan 1961) (unc)	<i>Utricularia novae-zelandiae</i>
<i>Oreostylidium subulatum</i>	* <i>Viola cunninghamii</i> <i>V. filicaulis</i>
<i>Outisia macrophylla</i> ssp. <i>robusta</i>	* <i>Wahlenbergia albomarginata</i> var. <i>pygmaea</i>
<i>Oxalis exilis</i>	<i>W. rupestris</i>
<i>O. magellanica</i>	
<i>Parahedbo diffusa</i> ssp. <i>diffusa</i>	<u>No. of species: 374.</u> (No. in Swamp: 166)

\* *Plantago taoulii*:

\* *P. triandra* s.s.

*Potentilla anserina* (unc)

\* *Pratia angulata* agg.

\* *Ranunculus glabifolius*

\* *R. recaens* var. (illustrated by Ogle 1978, p. 51)

\* *R. reflexus*

\* *R. sp.* (unnamed; included in *R.*

*lappaceus*, as var. *macrophyllus*, by Kirk 1899)

*R. simulans*

## ADVENTIVE SPECIES \*

(+ only those associated with modified native vegetation, i.e. excluding those associated with sown pasture, cropland, farmyards, gardens, etc)

\* - present in Ngamatea East Swamp  
 (\*) - uncommon in Swamp

### GYMNOSPERMS

\* *Pinus contorta* ♀

### GRASSES

\* *Agrostis capillacea*

\* *Aira caryophyllea*

\* *Anthoxanthum odoratum*

*Elymus rectisetus* ss

\* *Festuca nigrescens*

*F. tanuifolia*

\* *Holcus lanatus*

### SEDGES

*Isolepis setacea*

### RUSHES

\* *Juncus articulatus*

\* *J. effusus*

### COMPOSITE HERBS

\* *Cirsium arvense*

*C. vulgaris*

\* *Chrysanthemum capillaris*

*Hypochaeris radicata*

\* *Leontodon taraxacoides*

\* *Hieracium pilosella*

*Senecio jacobaea*

(\*) *S. sylvaticus* (unc)

*Sonchus asper*

*Taraxacum officinale* s.l.

### DICOT HERBS OTHER THAN COMPOSITES

*Acaena agnipila*

\* *Cerastium fontanum* ssp. *vulgare*

(\*) *Epilobium ciliatum*

(\*) *E. c. X E. chionanthum* (unc)

(\*) *Hyperticum humifusum*

\* *Linum catharticum*

\* *Myosotis laxa* ssp. *caespitosa*

*Plantago major*

*Prunella vulgaris*

\* *Rumex acetosella*

*Sagina procumbens*

*Trifolium dubium*

*T. pratense*

\* *T. repens*

No. of species: 34.

(No. in Swamp: 21)

↑ many removed from Swamp

February 1985

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