

Extracts from published the paper:

## **‘Assessment of invasive naturalised plants in south-east Queensland’**

George N. Batianoff and Don W. Butler, Queensland Herbarium, Environmental Protection Agency, Brisbane Botanic Gardens, Mt Coot-tha Road, Toowong, Queensland, 4066, Australia.

*Full copy of the Paper can be sourced from the  
Plant Protection Quarterly Vol 17(1) 2002*

### **Summary**

A list of 200 invasive naturalised species was prepared as a working document for the compilation of an environmental weed list for southeast Queensland. Species were selected from the 1060 naturalised taxa and were ranked based upon invasiveness and frequency in non-agricultural areas. The list was compiled using records of 1413 vegetation sites, 10163 herbarium specimens and ranking scores of a thirteen member assessment panel.

The study area was defined by the Southeast Queensland Environmental Weeds Strategy Working Group and was based on Local Government Areas. It covers in the North from Shires of Monto across to Miriam vale and down to the border.

The task of distinguishing weeds of disturbance (ruderal) from weeds of natural areas (environmental) was addressed by categorising species invasiveness and referring to a panel of thirteen weed scientists and field botanists. The expert assessment panel included members of four organisations. Tom Anderson, Trevor Armstrong and Dane Panetta are weed scientists at Alan Fletcher Research Station, Department of Natural Resources and Mining. George Batianoff, Anthony Bean, Paul Forster, Ailsa Holland, Bill McDonald, Sue Phillips and Kathy Stephens are botanists at Queensland Herbarium, Environmental Protection Agency. Michael Olsen and John Swarbrick are environmental consultants representing private enterprise. Paul Grimshaw is a technical officer representing Queensland Parks and Wildlife Service.

The panel members were presented with a list of 1060 naturalised species based on specimens held at the Queensland Herbarium. The questionnaire included four effective categories of invasiveness, plus a category for early records as outlined in Table 1. The weed scientists and botanists in the panel estimated plant invasiveness based on field observations and understanding of the biological performance of the species. The scores were averaged and species with average scores of 3.0 or less were not considered further. This left 443 species, which was then reduced down to the top 200 invasive naturalised species.

Table 1. Categories of plant invasiveness offered to the assessment panel.

Score	Description	Notes
5	highly invasive, forms monocultures	e.g. <i>Lantana camara</i> , <i>Celtis sinensis</i> , <i>Cabomba caroliniana</i>
4	generally invasive	escaping from cultivation and spreading to natural areas e.g. <i>Asparagus</i> spp., <i>Ochna serrulata</i> , <i>Pinus elliottii</i>
3	common, invasive? (needs disturbance)	weeds of suburban and agricultural disturbance e.g. <i>Alternanthera pungens</i> , <i>Conyza</i> spp. <i>Medicago polymorpha</i>
2	infrequent, poorly invasive	e.g. <i>Aloe arborescens</i>
1	poorly known and/or early records only	scores of 1 were not included in calculation of average scores

One third of the 200 species listed were categorised as highly invasive. Ninety percent were intentionally introduced for landscaping, agriculture and aquariums. One half of the list consists of herbs, including 34 species (17%) of grasses and 19 species (9%) of aquatic weeds. Woody weeds (shrubs and trees) are a problem in southeast Queensland, representing 37% (75 species).

The ten most highly ranked invasive species with their estimated residency years (since naturalisation/cultivation), based on Queensland Herbarium naturalisation records, in descending order are lantana (*Lantana camara*, 120 yrs), groundsel bush (*Baccharis halimifolia*, 85 yrs), mother-of-millions (*Bryophyllum delagoense*, 38 yrs), cat's claw creeper (*Macfadyena unguis-cati*, 45 yrs), Madeira vine (*Anredera cordifolia*, 55 yrs), ornamental asparagus (*Asparagus africanus*, 25 yrs), Chinese celtis (*Celtis sinensis*, 89 yrs), camphor laurel (*Cinnamomum camphora*, 77 yrs), broad-leaf pepper tree (*Schinus terebinthifolius*, 77 yrs) and salvinia (*Salvinia molesta*, 48 yrs). This short list of ten includes two species, lantana and salvinia, which were included in the final 20 weeds of national significance (Thorp and Lynch 2000, WONS).

The five arboreal plants (trees and shrubs) in this list have an average period since the first naturalised specimen was collected of 90 years. Whereas average period since first specimen record for five non-arboreal plants (herbs and vines) is 42 years. This suggests that introduced shrubs and trees may take twice as long as herbs and vines to reach significant weedy status. Many current environmental weeds such as camphor laurel, broad-leaf pepper tree, Chinese celtis, tree privet Chinese privet and jacaranda were widely planted during the Arbor Days in southeast Queensland in the 1890's (McLean, 1891). According Batianoff *et al.* (2001), plants held in cultivation in the study area are the main source of present and future weed infestations.

The process of weed invasion is ongoing, with an average of 87 new naturalisations recorded per decade in southeast Queensland (Batianoff *et al.* 2001). In recent decades the number of plant naturalisations appear to have increased (Hosking, pers. comm.). As the number of plant naturalisations is increasing, so is the number of invasive species that colonize available areas (Batianoff *et al.* 2001). The list should be treated as a current or point-in-time inventory and a useful monitoring tool for weed managers over time. Improvements in prediction of problematic species will depend on continual input of new information and the advances in the greater understanding of plant invasion processes (Batianoff *et al.* 2001).

Without environmental weed prioritisation, weed managers are overwhelmed by the large number of naturalised plant species. According to Rejmánek (2000), successful

management of invasive weeds requires active attempts to prevent new introductions and persistent efforts to eradicate the worst invaders. The Australian Quarantine and Inspection Service (AQIS) has new policies that include weed risk assessments and prohibition of entry of weedy plants. According to Walton (2001) the adoption of these new procedures by AQIS has considerably improved the screening process for importation of plant species. Control and regulation of invasive aquatics will continue to be difficult. Finally, the compilation of this list of invasive plants is seen as a small step in assisting weed management in southeast Queensland.

## References

**Batianoff, G.N., Butler, D.W. and Panetta, F.D. (2001). Potential new weeds in southeast Queensland: examining the process of invasion. In, "Proceedings, 2001 a pest odyssey, local government pest management workshop, Caloundra, QLD". pp. 27-35. (Department of Natural Resources and Mines, Queensland).**

McLean, P. (1891). Arbor Day. In 'Annual report of the Queensland Department of Agriculture for the Year 1890-91' pp19-20,53,68-9,197-202. (Government Printer, Brisbane).

Rejmánek, M. (2000). Invasive plants: approaches and predictions. *Australian Journal of Ecology* 25, 497-506.

Thorp, J.R. and Lynch, R. (2000). 'The determination of weeds of national significance'. (National Weeds Strategy Executive Committee, Launceston).

Walton, C.S. (2001). Implementation of a permitted list approach to plant introductions to Australia. In 'Weed risk assessment.' eds. R.H. Groves, F.D. Panetta and J.G. Virtue, pp 93-99. (CSIRO Publishing, Melbourne).

# List of Invasive Naturalised Plants in Southeast Queensland

Compiled by George N. Batianoff & Don W. Butler Queensland Herbarium, EPA.  
August 2001

Rank	Family	Scientific and common names	Sub-region	Recd No	Score	Life form & Source
1	Verbenaceae	<i>Lantana camara</i> var. <i>camara</i> (lantana)	10	455	5	S/O
2	Asteraceae	<i>Baccharis halimifolia</i> (groundsel bush)	10	168	4.8	S/O
3	Crassulaceae	<i>Bryophyllum delagoense</i> (mother of millions)	8	38	4.9	H/O
4	Bignoniaceae	<i>Macfadyena unguis-cati</i> (cat's claw creeper)	5	36	4.9	V/O
5	Basellaceae	<i>Anredera cordifolia</i> (madeira vine)	8	16	4.9	V/O
6	Asparagaceae	<i>Asparagus africanus</i> (ornamental asparagus, asparagus fern)	7	26	4.9	V/O
7	Ulmaceae	<i>Celtis sinensis</i> (Chinese celtis)	8	19	4.9	T/O
8	Lauraceae	<i>Cinnamomum camphora</i> (camphor laurel)	7	25	4.8	T/O
9	Anacardiaceae	<i>Schinus terebinthifolius</i> (broad-leaf pepper tree)	6	49	4.8	T/O
10	Salviniaceae	<i>Salvinia molesta</i> (salvinia)	8	57	4.9	Ha/F
11	Cabombaceae	<i>Cabomba caroliniana</i> (cabomba, fanwort)	4	12	4.9	Ha/F
12	Asteraceae	<i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i> (bitou bush)	3	23	4.9	S/OA
13	Pontederiaceae	<i>Eichhornia crassipes</i> (water hyacinth)	4	8	4.9	Ha/OF
14	Acanthaceae	<i>Hygrophila costata</i> (Glush weed)	3	7	5	Ha/F
15	Oleaceae	<i>Ligustrum lucidum</i> (tree privet)	5	9	4.8	T/O
16	Asteraceae	<i>Sphagneticola trilobata</i> (Singapore daisy)	6	34	4.6	H/O
17	Asteraceae	<i>Ageratina adenophora</i> (crofton weed)	6	38	4.6	H/O
18	Verbenaceae	<i>Lantana montevidensis</i> (creeping lantana)	8	62	4.8	S/O
19	Fabaceae	<i>Neonotonia wightii</i> (glycine)	5	16	4.7	H/A
20	Poaceae	<i>Panicum maximum</i> (green panic and guinea grass)	8	78	4.6	H/A
21	Oleaceae	<i>Ligustrum sinense</i> (Chinese privet)	4	11	4.6	T/O
22	Ochnaceae	<i>Ochna serrulata</i> (ochna)	7	33	4.5	S/O
23	Asparagaceae	<i>Asparagus aethiopicus</i> cv. <i>Sprengeri</i> (asparagus ground fern)	5	35	4.5	H/O
24	Poaceae	<i>Sporobolus pyramidalis</i> and <i>S. natalensis</i> (giant rat's tail grasses)	8	72	4.8	H/U?
25	Asteraceae	<i>Ageratina riparia</i> (mistflower)	5	38	4.6	H/O
26	Asclepiadaceae	<i>Araujia sericifera</i> (mothvine)	9	38	4.4	V/O
27	Crassulaceae	<i>Bryophyllum daigremontianum</i> x <i>B. delagoense</i> (hybrid mother-of-millions)	6	15	4.5	H/O
28	Convolvulaceae	<i>Ipomoea cairica</i> (mile-a-minute)	7	56	4.4	V/O
29	Sapindaceae	<i>Cardiospermum grandiflorum</i> (balloon vine)	7	31	4.4	V/O
30	Asclepiadaceae	<i>Cryptostegia grandiflora</i> (rubber vine)	6	19	4.4	V/O
31	Phytolaccaceae	<i>Rivina humilis</i> (baby pepper)	8	61	4.3	H/O
32	Poaceae	<i>Sporobolus africanus</i> (Parramatta grass)	8	48	4.5	H/U
33	Poaceae	<i>Sporobolus fertilis</i> (giant Parramatta grass)	9	27	4.5	H/U
34	Poaceae	<i>Eragrostis curvula</i> (African lovegrass)	7	29	4.3	H/U
35	Asteraceae	<i>Gymnocoronis spilanthoides</i> (Senegal tea)	3	4	4.7	Ha/F
36	Amaranthaceae	<i>Alternanthera philoxeroides</i> (alligator	1?	3	5	Ha/U

Rank	Family	Scientific and common names	Sub-region	Recd No	Score	Life form & Source
		weed)				
37	Passifloraceae	<i>Passiflora suberosa</i> (cork passionflower)	8	166	4.2	V/O
38	Poaceae	<i>Melinis minutiflora</i> (molasses grass)	5	17	4.5	H/A
39	Aristolochiaceae	<i>Aristolochia elegans</i> (Dutchman's pipe)	8	30	4.3	V/O
40	Convolvulaceae	<i>Ipomoea indica</i> (blue morning glory)	5	24	4.3	V/O
41	Mimosaceae	<i>Leucaena leucocephala</i> (leucaena)	6	14	4.3	ST/A
42	Poaceae	<i>Brachiaria mutica</i> (para grass)	6	18	4.4	Ha/A
43	Hydrocharitaceae	<i>Egeria densa</i> (egeria waterweed)	2	7	4.4	Ha/F
44	Pinaceae	<i>Pinus elliottii</i> (slash pine)	4	22	4.3	T/A
45	Caesalpiniaceae	<i>Senna pendula</i> var. <i>glabrata</i> (Easter cassia)	7	33	4.2	ST/O
46	Poaceae	<i>Chloris gayana</i> (Rhodes grass)	9	55	4.3	H/A
47	Crassulaceae	<i>Bryophyllum pinnatum</i> (resurrection plant)	6	17	4.2	H/O
48	Asteraceae	<i>Parthenium hysterophorus</i> (parthenium weed)	6	14	4.2	H/U
49	Caprifoliaceae	<i>Lonicera japonica</i> (Japanese honeysuckle)	3	6	4.3	V/O
50	Acanthaceae	<i>Thunbergia alata</i> (black eyed susan)	5	22	4.2	H/O
51	Fabaceae	<i>Macroptilium atropurpureum</i> (siratro)	8	39	4.2	V/A
52	Rosaceae	<i>Rubus ellipticus</i> (yellowberry)	4	26	4.1	S/O
53	Colchicaceae	<i>Gloriosa superba</i> (glory lily)	3	26	4.1	V/O
54	Verbenaceae	<i>Phyla canescens</i> (lippia, Condamine couch)	3	4	4.2	Ha/O
55	Solanaceae	<i>Solanum seafortianum</i> (Brazilian nightshade)	8	78	4	V/O
56	Araceae	<i>Pistia stratiotes</i> (water lettuce)	3	8	4.1	Ha/OF
57	Asparagaceae	<i>Asparagus plumosus</i> (asparagus fern)	4	8	4.1	V/O
58	Commelinaceae	<i>Tradescantia fluminensis</i> (Qld use <i>T. albiflora</i> ) (wandering jew)	5	9	4.1	H/O
59	Solanaceae	<i>Cestrum parqui</i> (green cestrum)	6	36	3.9	S/O
60	Caesalpiniaceae	<i>Senna septemtrionalis</i> (arsenic bush, was <i>S. floribunda</i> )	6	25	4	S/O
61	Solanaceae	<i>Solanum mauritianum</i> (wild tobacco tree)	8	30	4	S/O
62	Apocynaceae	<i>Catharanthus roseus</i> (pink periwinkle)	5	22	4	S/O
63	Passifloraceae	<i>Passiflora subpeltata</i> (white passion flower)	10	60	3.9	V/O
64	Fabaceae	<i>Desmodium uncinatum</i> (silverleaf desmodium)	5	14	4	H/A
65	Poaceae	<i>Melinis repens</i> (red Natal grass)	10	134	4.1	H/A
66	Nymphaeaceae	<i>Nymphaea caerulea</i> subsp. <i>zanzibarensis</i> (blue lotus)	4	17	4	Ha/OF
67	Onagraceae	<i>Oenothera drummondii</i> subsp. <i>drummondii</i> (beach evening primrose)	3	17	4	H/O
68	Tiliaceae	<i>Triumfetta rhomboidea</i> (Chinese burr)	7	44	4	H/U
69	Haloragaceae	<i>Myriophyllum aquaticum</i> (parrot's feather)	3	15	4	Ha/F
70	Passifloraceae	<i>Passiflora foetida</i> (stinking passion flower)	7	50	3.9	V/O
71	Asteraceae	<i>Verbesina encelioides</i> (crownbeard)	7	34	4	H/U
72	Poaceae	<i>Paspalum mandiocanum</i>	3	5	4	H/A
73	Poaceae	<i>Paspalum dilatatum</i> (paspalum grass)	10	30	3.9	H/A
74	Ruppiaceae	<i>Ruppia maritima</i> (sea tassel)	2	8	4	Ha/F
75	Malpighiaceae	<i>Hiptage benghalensis</i> (hiptage)	3	5	4	S,V/O
76	Poaceae	<i>Hymenachne amplexicaulis</i> cv. Olive (hymenachne)	1?	1	4	Ha/A

Rank	Family	Scientific and common names	Sub-region	Recd No	Score	Life form & Source
77	Asteraceae	<i>Senecio tamoides</i> (Canary creeper)	3	8	4	V/O
78	Poaceae	<i>Cenchrus ciliaris</i> (buffel grass)	4	15	4.1	H/A
79	Acanthaceae	<i>Thunbergia grandiflora</i> (thunbergia, blue thunbergia)	2	3	5?	V/O
80	Cactaceae	<i>Opuntia tomentosa</i> (velvet tree pear)	8	46	3.9	S/O
81	Euphorbiaceae	<i>Ricinus communis</i> (castor oil plant)	7	20	3.9	S/O
82	Asteraceae	<i>Senecio madagascariensis</i> (fire weed)	6	28	3.8	H/U
83	Cyperaceae	<i>Cyperus involucratus</i> (African sedge)	6	15	3.8	Ha/OF
84	Asteraceae	<i>Tithonia diversifolia</i> (Mexican sunflower)	5	11	3.9	H/O
85	Poaceae	<i>Setaria sphacelata</i> (South African pigeon grass)	9	41	3.8	H/A
86	Asclepiadaceae	<i>Gomphocarpus physocarpus</i> (balloon cotton bush)	10	132	3.7	S/OU
87	Poaceae	<i>Digitaria didactyla</i> (Queensland blue couch)	9	70	3.7	H/A
88	Caesalpiniaceae	<i>Gleditsia triacanthos</i> (honey locust)	7	12	3.8	T/O
89	Poaceae	<i>Paspalum notatum</i> (bahia grass)	4	10	3.8	H/A
90	Cactaceae	<i>Opuntia monacantha</i> (drooping tree pear, syn. <i>O. vulgaris</i> )	2	3	4	S/O
91	Poaceae	<i>Paspalum conjugatum</i> (paspalum grass)	7	38	3.8	H/A
92	Arecaceae	<i>Syagrus romanzoffiana</i> (queen palm)	4?	10	3.9	T/O
93	Solanaceae	<i>Solanum torvum</i> (devil's fig)	6	39	3.9	S/O
94	Caesalpiniaceae	<i>Caesalpinia decapetala</i> (thorny poinciana)	4	20	3.9	S,V/O
95	Poaceae	<i>Pennisetum alopecuroides</i> (swamp foxtail)	7	29	3.8	H/O
96	Verbenaceae	<i>Duranta erecta</i> (duranta)	6	14	3.6	ST/O
97	Brassicaceae	<i>Nasturtium officinale</i> (Qld use <i>Rorippa nasturtium-aquaticum</i> ) (watercress)	7	19	3.7	Ha/FU
98	Polygonaceae	<i>Acetosa sagittata</i> (rambling dock)	4	18	3.7	V/U
99	Poaceae	<i>Cynodon dactylon</i> (couch, Bahama grass introduced cultivars)	10	45	3.6	H/OA
100	Bignoniaceae	<i>Tecoma stans</i> (yellow bells)	4	16	3.6	ST/O
101	Rosaceae	<i>Rhaphiolepis indica</i> (Indian hawthorn)	3	10	3.5	ST/O
102	Mimosaceae	<i>Mimosa pudica</i> (common sensitive plant)	4	12	3.7	S/A
103	Commelinaceae	<i>Callisia fragrans</i> (purple succulent)	3	9	3.9	H/O
104	Scrophulariaceae	<i>Paulownia tomentosa</i> (paulownia)	3	5	4	T/AO
105	Commelinaceae	<i>Tradescantia zebrina</i> (zebrina)	3	12	3.7	H/O
106	Acanthaceae	<i>Ruellia malacosperma</i> (ruellia)	5	16	3.8	H/O
107	Poaceae	<i>Pennisetum clandestinum</i> (kikuyu grass)	4	12	3.8	H/A
108	Liliaceae	<i>Lilium formosanum</i> (Taiwan lily)	5	10	3.8	H/O
109	Asteraceae	<i>Sigesbeckia orientalis</i> (Indian weed)	10	148	3.6	H/U
110	Asteraceae	<i>Bidens pilosa</i> (cobble's pegs)	10	110	3.5	H/U
111	Cactaceae	<i>Opuntia stricta</i> (common prickly pear)	7	67	3.6	S/O
112	Poaceae	<i>Eleusine indica</i> (crowsfoot grass)	8	55	3.5	H/A
113	Poaceae	<i>Axonopus compressus</i> ( broad leaved carpet grass)	5	23	3.6	H/AO
114	Lamiaceae	<i>Salvia coccinea</i> (red salvia)	9	46	4	H/O
115	Asteraceae	<i>Ageratum houstonianum</i> (blue billygoat weed)	8	81	3.8	H/UO
116	Myrtaceae	<i>Psidium guajava</i> and <i>P. guineense</i> (yellow guava and West Indies guava)	4	7	3.7	ST/AO
117	Rosaceae	<i>Rubus bellobatus</i> (kittatinny blackberry)	5	22	3.5	S/O
118	Myrtaceae	<i>Eugenia uniflora</i> (Brazilian cherry)	4	19	3.5	ST/O
119	Oleaceae	<i>Olea europaea</i> (olive)	2	6	4?	T/A

Rank	Family	Scientific and common names	Sub-region	Recd No	Score	Life form & Source
120	Poaceae	<i>Brachiaria decumbens</i> (signal grass)	4	14	3.5	H/A
121	Fabaceae	<i>Stylosanthes scabra</i> (shrubby stylo)	4	4	4.3?	H/A
122	Commelinaceae	<i>Commelina benghalensis</i> (hairy wandering jew)	4	7	3.5	H/O
123	Poaceae	<i>Pennisetum purpureum</i> (elephant grass)	2	9	3.5	H/O
124	Zingiberaceae	<i>Hedychium coronarium</i> (wild ginger)	2	2	3.5	H/O
125	Phytolaccaceae	<i>Phytolacca octandra</i> (inkweed)	10	50	3.4	H/O
126	Asclepiadaceae	<i>Asclepias curassavica</i> (red cotton bush)	9	43	3.4	S/O
127	Solanaceae	<i>Lycium ferocissimum</i> (African boxthorn)	1?	5	4.4?	S/O
128	Mimosaceae	<i>Prosopis pallida</i> (algaroba)	2	2	4	ST/O
129	Juncaceae	<i>Juncus articulatus</i> (jointed rush)	1	2	4	Ha/FO
130	Cactaceae	<i>Opuntia aurantiaca</i> (tiger pear)	1	2	4	S/O
131	Poaceae	<i>Arundo donax</i> (giant reed)	1	4	3.8	H/O
132	Cactaceae	<i>Opuntia imbricata</i> (rope pear)	1	1	4	H/O
133	Bignoniaceae	<i>Pyrostegia venusta</i> (flame vine)	1	1	4	V/O
134	Poaceae	<i>Cortaderia selloana</i> (pampas grass)	2	1	3.7	H/O
135	Solanaceae	<i>Solanum hispidum</i> (giant devil's fig)	5	23	3.6	S/O
136	Agavaceae	<i>Furcraea foetida</i> (Cuban hemp)	3	4	4.3?	S/OA
137	Agavaceae	<i>Furcraea selloa</i> (hemp)	1	2	4?	S/OA
138	Agavaceae	<i>Agave americana</i> (century plant)	4	9	3.7	S/OA
139	Rutaceae	<i>Murraya paniculata</i> cv. Exotica (murraya)	6	26	3.6	S/O
140	Rosaceae	<i>Rubus discolor</i> ( <i>R. fruticosus</i> complex, a blakberry)	4	10	3.7	S/OA
141	Brassicaceae	<i>Cakile edentula</i> (American sea rocket)	4	24	3.7	H/U
142	Balsaminaceae	<i>Impatiens walleriana</i> (balsam)	2	6	3.7	H/O
143	Agavaceae	<i>Agave sisalana</i> (sisal)	2	4	3.7	S/OA
144	Agavaceae	<i>Agave vivipara</i> var. <i>vivipara</i> (sisal)	2	3	3.7	S/OA
145	Rosaceae	<i>Prunus munsoniana</i> (wild goose plum)	7	31	3.7	ST/A
146	Poaceae	<i>Echinochloa crus-galli</i> (barnyard grass)	6	34	3.7	H/A
147	Asteraceae	<i>Solidago canadensis</i> var. <i>scabra</i> (Canadian goldenrod)	7	15	4?	H/O
148	Fabaceae	<i>Pueraria lobata</i> (kudzu)	3	4	3.8	V,S/O
149	Alismataceae	<i>Sagittaria graminea</i> var. <i>platyphylla</i> (sagittaria arrowhead)	3	7	3.5	Ha/FO
150	Nymphaeaceae	<i>Nymphaea mexicana</i> (yellow waterlily)	2	4	3.7	Ha/OF
151	Poaceae	<i>Phyllostachys aurea</i> (fishpole bamboo)	1	2	3.7	S/O
152	Euphorbiaceae	<i>Jatropha gossypifolia</i> (cotton-leaf physic nut, bellyache bush)	1	1	3.7	S/O
153	Malvaceae	<i>Sida rhombifolia</i> (Paddy's lucerne)	9	69	3.6	S/U
154	Poaceae	<i>Themeda quadrivalvis</i> (grader grass)	8	25	3.6	H/A
155	Poaceae	<i>Andropogon virginicus</i> (whisky grass)	6	14	3.6	H/A
156	Bignoniaceae	<i>Jacaranda mimosifolia</i> (jacaranda)	4	12	3.4	T/O
157	Acanthaceae	<i>Justicia betonica</i> (squirreltail)	2	4	4	S/O
158	Mimosaceae	<i>Acacia boliviana</i> (Bolivian wattle)	1	1	4	T/O
159	Simaroubaceae	<i>Ailanthus altissima</i> (tree of heaven)	1?	3	3.5	T/O
160	Poaceae	<i>Echinochloa colona</i> (awnless barnyard grass)	9	44	3.3	H/A
161	Cyperaceae	<i>Cyperus brevifolius</i> (Mullumbimby couch)	8	53	3.4	H/O
162	Moraceae	<i>Morus alba</i> (white mulberry)	3	10	3.4	T/O
163	Arecaceae	<i>Colocasia esculenta</i> (taro)	3	4	3.4	H/AO
164	Cannaceae	<i>Canna indica</i> (canna lily)	3	9	3.3	H/O
165	Buddlejaceae	<i>Buddleja madagascariensis</i> (buddleja)	5	6	3.4	S,V/O
166	Bignoniaceae	<i>Tecoma capensis</i> (Cape honeysuckle)	3	8	4	ST/O

Rank	Family	Scientific and common names	Sub-region	Recd No	Score	Life form & Source
167	Cactaceae	<i>Harrisia martinii</i> (harrisia cactus)	2?	4	4	S/O
168	Acanthaceae	<i>Thunbergia laurifolia</i> (laurel clock vine)	1	1	4	V/O
169	Fabaceae	<i>Erythrina crista-galli</i> (cockspur coral tree)	2?	4	3.5	T/O
170	Sapindaceae	<i>Koelreuteria elegans</i> (Chinese rain tree)	1?	1	3.6?	T/O
171	Zingiberaceae	<i>Hedychium gardnerianum</i> (ginger lily)	1?	3	3.6	H/O
172	Acanthaceae	<i>Hypoestes phyllostachya</i> (polka-dot plant)	3	5	3.5	H/O
173	Caprifoliaceae	<i>Sambucus canadensis</i> (American elder)	3	7	3.4	ST/O
174	Asteraceae	<i>Conyza albida</i> (Qld use <i>C. sumatrensis</i> ) (tall fleabane)	9	45	3.3	H/U
175	Fabaceae	<i>Tipuana tipu</i> (tipuana)	2	5	3.4	T/O
176	Asteraceae	<i>Tagetes minuta</i> (stinking roger)	8	32	3.3	H/U
177	Caesalpiniaceae	<i>Chamaecrista rotundifolia</i> (round-leaf cassia)	6	14	3.3	ST/A
178	Poaceae	<i>Cenchrus echinatus</i> (Mossman river grass)	8	43	3.3	H/A
179	Asteraceae	<i>Conyza canadensis</i> (Canadian fleabane)	10	55	3.3	H/U
180	Euphorbiaceae	<i>Euphorbia cyathophora</i> (painted spuge)	8	20	3.3	H/O
181	Poaceae	<i>Setaria palmifolia</i> (palm leaf setaria)	5	13	3.3	H/O
182	Euphorbiaceae	<i>Euphorbia heterophylla</i> (milk weed)	5	12	3.4	H/O?
183	Fabaceae	<i>Desmodium intortum</i> (greenleaf desmodium)	4	11	3.3	H/A
184	Poaceae	<i>Pennisetum setaceum</i> (fountain grass)	3	11	3.3	H/O
185	Asteraceae	<i>Conyza bonariensis</i> (flax-leaf fleabane)	7	38	3.3	H/U
186	Solanaceae	<i>Solanum erianthum</i> (a tobacco bush)	7	19	3.2	S/O
187	Poaceae	<i>Stenotaphrum secundatum</i> (buffalo grass)	3	23	3.2	H/AO
188	Apocynaceae	<i>Thevetia peruviana</i> (Qld use <i>Cascabela thevetia</i> ) (yellow oleander)	5	9	3.1	ST/O
189	Rubiaceae	<i>Coffea arabica</i> (coffee)	3	7	3.2	ST/A
190	Bignoniaceae	<i>Spathodea campanulata</i> (African tulip tree)	1?	1	3.4	T/O
191	Fabaceae	<i>Macrotyloma axillare</i> (perennial horse gram)	4	12	3.1	V,H/A
192	Iridaceae	<i>Watsonia meriana</i> var. <i>bulbillifera</i> (bulbil watsonia)	2	3	3.1	H/O
193	Passifloraceae	<i>Passiflora edulis</i> (passion fruit)	6	12	3.2	V/AO
194	Asteraceae	<i>Zinnia peruviana</i> (wild zinnia)	6	33	3.1	H/O
195	Dracaenaceae	<i>Sansevieria trifasciata</i> (sansevieria)	2?	7	3.1	H/O
196	Poaceae	<i>Digitaria eriantha</i> (pangola grass)	5	20	3.1	H/A
197	Rosaceae	<i>Eriobotrya japonica</i> (loquat)	3	5	3.1	T/O
198	Cactaceae	<i>Acanthocereus tetragonus</i> (sword pear)	1	1	3.3	S/O
199	Mimosaceae	<i>Acacia nilotica</i> subsp. <i>indica</i> (prickly acacia)	3	3	4.4?	T/A
200	Mimosaceae	<i>Acacia farnesiana</i> (mimosa bush)	6	15	3.1	T/A



## **Explanatory notes**

**Sub-region;** number of the ten sub-regions of the Southeast Queensland bioregion (Young and Dillewaard 1999) within which species recorded (Queensland Herbarium data).

**Recd no.;** total number of records for species within study area, Queensland Herbarium CORVEG and HERBRECS data.

**Scores;** based on panel data of invasiveness, 5 (highest) to 3 (moderate). ? indicate doubtful scores.

**Life forms;** T-tree (woody plant >5m), ST-small tree (2-5m), S-shrub (woody <2m), H-herb (grasses & forbes), Ha-aquatic herbs.

**Source;** A-agriculture, O-ornamental and landscaping, F-fish aquarium, U-unintentional introduction and/or contaminant.