

Weeds in the Burdekin Rangelands: An overview

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It is not possible to assemble a complete list of alien plants that are found within the Burdekin Rangelands. The alien flora is incompletely known and it is almost certainly expanding. Nevertheless, it is clear that a large number of alien plant species are found within the Burdekin Rangelands (Table 2, pages 2–3.).

Alien weeds

Alien species represent a wide range of taxonomic groups and life forms. For example, the species listed in Table 2 represent 28 plant families. Life forms range from annual and perennial forbs, to annual grasses, perennial tussock and stoloniferous grasses, succulents, shrubs, vines and trees.

In many areas, alien species contribute substantially to plant species lists (Table 1) and often dominate the communities of which they are a part. Many of the alien species recorded in the Burdekin Rangelands (Table 2 pp. 2–3) were deliberately introduced because of perceived benefits, often for the pastoral industry. While some, such as buffel grass (*Cenchrus ciliaris*), have retained their status as valued pasture plants, others (e.g. prickly acacia *Acacia nilotica*) are now recognised as weeds from a pastoral perspective.

Native weeds

Various native species are given weed status by particular user groups. Most notable amongst these are the two species of currant bush (*Carissa ovata* and *C. lanceolata*) and various species of *Acacia*. These plants are regarded as weeds by pastoralists; the former because they have apparently increased in abundance since pastoral settlement; the latter because of their tendency to increase in abundance following clearance of eucalypt woodlands.

Future threats

While many of the species listed in Table 2 are already abundant and widespread within the Burdekin Rangelands, others are still quite restricted. They have not yet realized their potential within the region. For example, prickly acacia, although abundant and a major pest on the Mitchell grass plains to the west and at certain locations closer to the coast, is so far uncommon in the Burdekin Rangelands.

Parkinsonia also has considerable potential to expand further and, even though there are some major infestations of parthenium to the south of the region, it is, as yet, not a major problem in many areas. The same is true for yellow oleander that could eventually spread more widely along the region's rivers and streams and giant rat's tail grass, which could be a major problem in over-grazed pastures. Without treatment, bellyache bush is also likely to spread and become more common. In fact, there are probably many species that are already present within Australia that could become significant weeds within the Burdekin Rangelands.

References

- Grice, A.C., (1999), *Townsville Field Training Area Weed Management Strategy*, Report prepared for the Department of Defence.
- Bean, A.R., (1992), *Dalrymple National Park Vegetation Survey: Townsville*, Department of Environment and Heritage Northern Regional Centre.
- Williams, P.R., & Cumming, R.J., (1999), 'The vegetation of Mt Fox, Lumholtz Park, North Queensland', *Proceedings of the Royal Society of Queensland*, 108:107–115.

Table 1 Numbers of alien species listed for various parts of the Burdekin Rangelands*

Area	No. species	No. aliens	% of aliens
Townsville Field Training Area	382	60	15.7
Cardigan Station*	130	18	13.8
Fletcherview Station*	471	68	14.4
Dreghorn Station	293	41	14
Dalrymple NP	129	14	10.9
Mt Fox, Lumholtz NP	307	32	10.1

*These lists are not necessarily comprehensive of the entire alien floras of the regions to which they relate. Asterisks indicate those locations for which data include only herbaceous species.



Table 2 Alien species occurring within the Burdekin Rangelands

Common name	Scientific name	Family	Life form
Prickly acacia	<i>Acacia nilotica</i>	Mimosaceae	shrub/tree
Star burr	<i>Acanthospermum hispidum</i>	Asteraceae	short-lived forb
Budda pea	<i>Aeschynomene indica</i>	Fabaceae	short-lived forb
Billy goat weed	<i>Ageratum conyzoides</i>	Asteraceae	short-lived forb
Aloe (unknown species)	<i>Aloe spp.</i>	Liliaceae	succulent
Joyweed	<i>Alternanthera bettzikiana</i>	Amaranthaceae	short-lived forb
Khaki weed	<i>Alternanthera pungens</i>	Amaranthaceae	perennial forb
—	<i>Amaranthus interruptus</i>	Amaranthaceae	short-lived forb
Green amaranth	<i>Amaranthus viridis</i>	Amaranthaceae	short-lived forb
Mexican poppy	<i>Argemone ochroleuca</i>	Papaveraceae	short-lived forb
Red head cotton bush	<i>Asclepias currassavica</i>	Asclepiadaceae	perennial forb
Spanish needles	<i>Bidens bipinnata</i>	Asteraceae	short-lived forb
Cobbler's peg	<i>Bidens pilosa</i>	Asteraceae	short-lived forb
Creeping bluegrass	<i>Bothriochloa insculpta</i>	Poaceae	stoloniferous grass
Indian couch	<i>Bothriochloa pertusa</i>	Poaceae	stoloniferous grass
Humidicola	<i>Brachiaria humidicola</i>	Poaceae	stoloniferous grass
Paragrass	<i>Brachiaria mutica</i>	Poaceae	stoloniferous grass
Mother-of-millions	<i>Bryophyllum tubiflorum</i>	Crassulaceae	succulent
Bird pepper	<i>Capsicum annuum</i>	Solanaceae	short-lived forb
Buffel grass	<i>Cenchrus ciliaris</i>	Poaceae	tussock grass
Mossman River grass	<i>Cenchrus echinatus</i>	Poaceae	tussock grass
Asthma plant	<i>Chamaesyce hirta</i>	Euphorbiaceae	short-lived forb
Goosefoot	<i>Chenopodium carinatum</i>	Chenopodiaceae	short-lived forb
Purpletop Rhodes grass	<i>Chloris barbata</i>	Poaceae	annual grass
Callide Rhodes grass	<i>Chloris gayana</i>	Poaceae	tussock grass
Purpletop Rhodes grass	<i>Chloris inflata</i>	Poaceae	stoloniferous grass
Feathertop Rhodes grass	<i>Chloris virgata</i>	Poaceae	stoloniferous grass
Fleabane	<i>Conyza sp.</i>	Asteraceae	short-lived forb
—	<i>Corchorus tridens</i>	Tiliaceae	short-lived forb
Gambia Pea	<i>Crotalaria goreensis</i>	Fabaceae	short-lived forb
Bird flower	<i>Crotalaria laburnifolia</i>	Fabaceae	shrub
—	<i>Crotalaria lanceolata</i>	Fabaceae	short-lived forb
Rubber vine	<i>Cryptostegia grandiflora</i>	Asclepiadaceae	shrub/vine
Couch	<i>Cynodon dactylon</i>	Poaceae	stoloniferous grass
Downy thornapple	<i>Datura innoxia</i>	Solanaceae	short-lived forb
Common thornapple	<i>Datura stramonium</i>	Solanaceae	short-lived forb
Summer grass	<i>Digitaria ciliaris</i>	Poaceae	stoloniferous grass
Harrisia cactus	<i>Eriocereus martini</i>	Cactaceae	succulent
Gomphrena	<i>Gomphrena celosioides</i>	Amaranthaceae	short-lived forb
Hymenachne	<i>Hymenachne amplexicaule</i>	Poaceae	stoloniferous grass
Hyptis	<i>Hyptis suaveolens</i>	Lamiaceae	short-lived forb
Lantana	<i>Lantana camara</i>	Verbenaceae	shrub
Peppergrass	<i>Lepidium sp.</i>	Brassicaceae	forb/shrub
Siratro	<i>Macroptilium atropurpureum</i>	Fabaceae	perennial forb

Data sources: Townsville Field Training Area (Grice, 1999); Dalrymple National Park (Bean 1992); Mt Fox section of Lumholtz National Park (Williams and Cumming 1999); Cardigan grazing study site (CSIRO, unpublished data); Hillgrove grazing study site (CSIRO, unpublished data); Dregghorn-Cameron study site (CSIRO, unpublished data); Allan Hills study site (CSIRO, unpublished data). Bold characters indicate species that are declared noxious under legislation over all or part of the Burdekin Rangelands.

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Common name	Scientific name	Family	Life form
Phasey bean	<i>Macroptilium lathyroides</i>	Fabaceae	short-lived forb
Red Natal grass	<i>Melinis repens</i>	Poaceae	tussock grass
Common sensitive plant	<i>Mimosa pudica</i>	Mimosaceae	perennial forb
Tree tobacco	<i>Nicotiana glauca</i>	Solanaceae	shrub
Prickly pear	<i>Opuntia stricta</i>	Cactaceae	succulent
Guinea grass	<i>Panicum maximum</i>	Poaceae	tussock grass
Parkinsonia	<i>Parkinsonia aculeata</i>	Caesalpinaceae	shrub
Parthenium	<i>Parthenium hysterophorus</i>	Asteraceae	short-lived forb
Water couch	<i>Paspalum paspalodes</i>	Poaceae	stoloniferous grass
Stinking passion flower	<i>Passiflora foetida</i>	Passifloraceae	perennial vine
Corky passion vine	<i>Passiflora suberosa</i>	Passifloraceae	perennial vine
Red-ink weed	<i>Phytolacca octandra</i>	Phytolaccaceae	perennial forb
Pig weed	<i>Portulaca pilosa</i>	Portulacaceae	succulent
Mesquite	<i>Prosopis pallida</i>	Mimosaceae	shrub
Brazil calla lily	<i>Richardia brasiliensis</i>	Rubiaceae	short-lived forb
Castor oil plant	<i>Ricinus communis</i>	Euphorbiaceae	shrub
—	<i>Rotala mexicana</i>	Lythraceae	short-lived forb
Sicklepod	<i>Senna obtusifolia</i>	Caesalpinaceae	shrub
Coffee senna	<i>Senna occidentalis</i>	Caesalpinaceae	short-lived forb
Spiny head sida	<i>Sida acuta</i>	Malvaceae	shrub
Paddy's lucerne	<i>Sida rhombifolia</i>	Malvaceae	shrub
Spiny sida	<i>Sida spinosa</i>	Malvaceae	shrub
Spiked sida	<i>Sida subspicata</i>	Malvaceae	shrub
—	<i>Solanum americanum</i>	Solanaceae	shrub
Wild tobacco tree	<i>Solanum mauritianum</i>	Solanaceae	shrub
Devil's fig	<i>Solanum torvum</i>	Solanaceae	shrub
Common sowthistle	<i>Sonchus oleraceus</i>	Asteraceae	short-lived forb
Parramatta grass	<i>Sporobolus indicus</i>	Poaceae	tussock grass
American rat's-tail grass	<i>Sporobolus jacquemontii</i>	Poaceae	tussock grass
Giant rat's-tail grass	<i>Sporobolus pyramidalis</i>	Poaceae	tussock grass
Jamaican snakeweed	<i>Stachytarpheta jamaicensis</i>	Verbenaceae	short-lived forb
Verano	<i>Stylosanthes hamata</i>	Fabaceae	perennial shrub
Townsville stylo	<i>Stylosanthes humilis</i>	Fabaceae	short-lived forb
Seca stylo	<i>Stylosanthes scabra</i>	Fabaceae	shrub
Tamarind	<i>Tamarindus indicus</i>	Caesalpinaceae	tree
Grader grass	<i>Themeda quadrivalvis</i>	Poaceae	annual grass
Yellow oleander	<i>Thevetia peruviana</i>	Apocynaceae	shrub
Goathead burr	<i>Tribulus terrestris</i>	Zygophyllaceae	short-lived forb
Tridax daisy	<i>Tridax procumbens</i>	Asteraceae	short-lived forb
—	<i>Triumfetta pentandra</i>	Tiliaceae	short-lived forb
—	<i>Triumfetta pilosa</i>	Tiliaceae	short-lived forb
Urena burr	<i>Urena lobata</i>	Malvaceae	short-lived forb
Sabi grass	<i>Urochloa mosambicensis</i>	Poaceae	stoloniferous grass
Liverseed grass	<i>Urochloa panicoides</i>	Poaceae	stoloniferous grass
Purple-top	<i>Verbena bonariensis</i>	Verbenaceae	perennial forb
Noogoora burr	<i>Xanthium occidentale</i>	Asteraceae	short-lived forb
Chinee apple (Indian jujube)	Ziziphus mauritiana	Rhamnaceae	shrub

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