Landnote

Department of Conservation & Land Management

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PAMPAS GRASS IN WESTERN AUSTRALIA

G.J. KEIGHERY and J.J. ALFORD
WOODVALE RESEARCH

Cortaderia (Poaceae) is a medium sized genus of 24 species found naturally in South America and New Zealand (Connor and Edgar (1974)). Several species have become widespread garden plants, especially in the Northern Hemisphere, and, at least in Victorian times provided a substantial industry (McKart (1983)). One species *C. selloana* is probably the most widely grown and universally known of all ornamental grasses, and has at least 13 named cultivars according to Grounds (1979).

Unfortunately in regions with relatively mild winters members of the genus can become serious weeds. In 1984 we were asked by Management staff attempting to eliminate Pampas Grass from Thomson's Lake Nature Reserve to clarify the taxonomy of this genus in Western Australia, because of conflicting information they had obtained.

Subsequent to this request we surveyed the occurrence of this weed in South Western Australia.

Background

Two species of *Cortaderia* have become serious weeds; namely *C. selloana* (Schutt.) Asch. et Graeb. and *C. jubata* (Lem.) Stapf. in Hook. Both occur naturally in Ecuador, Peru, Bolivia and Argentina, and are very closely related species.

Cortaderia jubata is composed entirely of female plants (*C. selloana* has male, female plants or hermaphrodites) and is apomictic (Connor (1973)). Because of this unusual breeding system (seed is set without fertilization) populations are very uniform. The plants are smaller than *C. selloana*, the leaves a lighter green with shorter uniformly purple inflorescences (in *C. selloana* they vary from white to pink to purple) and in having a chromosone number of 2n = 108 vs 2n = 72 for *C. selloana*.

From a literature survey it appears that *C. jubata* is the major weed species in California. Both species are naturalised in New Zealand, but *C. jubata* is a major problem for plantation and regrowth forestry.

We were unable to obtain clear information for Eastern Australia, some reports completely ignored Pampas Grass while others noted it as a major threat, to commercial forestry operations (Annon, 1985). Recently (1986) the N.S.W. section of the Australian Institute of Horticulture requested that Pampas Grass (*C. selloana*) be declared a noxious weed in that state.

SURVEY RESULTS

We examined 57 naturalized populations of Cortaderia from Gin Gin to Albany (30 in the Perth Metropolitan Region), and all are the same taxon *Cortaderia selloana*. Material from a range of these populations has been placed as voucher collections in PERTH Herbarium.

On the Swan coastal plain Pampas Grass is confined to winter wet areas (edges, creeks or rivers, lakes or swamps), but in higher rainfall regions it can be found on sandy soils under Eucalypt woodland or even on the foreshore at Albany.

DISCUSSION

Pampas Grass is widespread within south Western Australia and forms a major pest species in wetlands on the Swan coastal plain. Currently only one species, *Cortaderia selloana* is naturalised in Western Australia.

There are several points to note from this survey:

1) Members of the genus should be recognised as potential devastating weeds not as an ornamental by land managers. Currently Parsons in his book on the noxious weeds of Victoria lists the species as a useful ornamental!

2) Every attempt should be made to ensure that *Cortaderia jubata* is not imported into Western Australia. Perhaps Pampas Grass should be a prohibited import.

3) The Department should never use, encourage or condone the use of this genus within any area managed by the Department. Members of the Department who by the nature of their work are housed in such areas should be encouraged to remove or destroy this genus in their home gardens.

4) Small infestations, such as at Lake Monger or Herdsman Lake should be eliminated before they can enlarge.

REFERENCES

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