Beautiful But Dangerous

More Invasive Alien Plants of Durban

and the Eastern, Sub-tropical Region of South Africa

with some Indigenous Alternatives

Control and Eradication

Control of alien plants in a garden situation is probably best achieved by mechanical means. Tackle light infestations first and then denser infestations. Small plants may be pulled out at the roots especially when the soil is moist. Larger plants may need to be dug out at the roots. The key to success is to tackle the job in a planned way and to diligently follow up to remove seedlings and regrowth.

For more serious problems herbicides may be used. It is recommended that professional advice is sought before using herbicides.

Key

- **Category 1**
- **Potential Problems**
- **Category 3**
- **Poisonous**

The publication of this poster was made possible by generous funding from the **Lomas Wildlife Protection Trust.**

New Weed & Invader Plant Legislation

By the year 2000, 10 million hectares of land in South Africa had been invaded by alien plants. Alien plants have numerous impacts:

- **They can increase flood damage.**
- **They compete with agricultural crops.**
- **They displace indigenous plants and animals.**
- **They increase the loss of water from catchments.**
- **They increase the severity of fires.**
- **They expand the range of disease-causing organisms.**

Despite raising almost R 1 billion to date through national government programmes and working at unprecedented levels, we are not reducing the extent of the invasion. In recognising the threats posed by invasive plants, the National Department of Agriculture has drafted regulations and listed weeds and alien invader plants under the Conservation of Agricultural Resources Act.

The list contains about 200 plants grouped into three categories:

CATEGORY 1: Weeds which may not be grown and must be controlled.

CATEGORY 2: Invader plants with commercial or utility value, which may only be grown with a permit under controlled circumstances.

CATEGORY 3: Invader plants, which have amenity value and which may be grown, but not planted, propagated, imported or traded. You may not grow Category 3 plants within 30 metres of watercourses and the Department may instruct you to control Category 3 plants in other areas.

This Poster's Objective

Prevention of alien plant invasions is far cheaper than control or eradication. This poster profiles plants which are grown and sold by nurseries and used by landscapers and gardeners. Unlike most other exotic species, these plants have escaped formally planted areas and are appearing to varying degrees in natural ecosystems.

Some of the plants on this poster have not been placed in a category by the Department of Agriculture and are thus not covered by the new legislation. Currently they are considered regional problems and/or their weed potential is yet to be established.

The plants on this poster were selected using these criteria:

- **They have escaped formally planted areas in Durban and are likely to do so in other sub-tropical parts of South Africa.**
- **They are potential transformers of natural habitats.**
- **They are 'emerging' problem species.**

Another poster in the series describes the most aggressive weed and invader plants in the region.

Useful Contacts

For advice and planning of control work:

- Your local District Conservation Officer, KZN Wildlife.
Tel: 031-764 3515. E-mail: pattrici@kznncs.org.za
- The Ecological Advice Division, KZN Wildlife, Pietermartizburg. Tel: 033-845 1999.
- The Plant Protection Research Institute, Cedara runs a short course on alien plant control for land managers.
Tel: 033-355 9416 or 033-355 9413.
E-mail: ntjg@natal1agric.za
- Alien Buster Campaign, Toll-free line: 0800 005 376.

For Law Enforcement:

- National Department of Agriculture, Directorate: Agricultural Land and Resource Management, Box 345, Pietermaritzburg, 3200.
Tel: 033-345 3515 or 033-345 3557.

For information about the use of herbicides contact:

- Your local supplier of agro-chemicals (see Weed Control Services in the Yellow Pages).

To find indigenous plants and professional contractors who remove alien plants:

- The Botanical Society - KZN Coastal Branch.
Fax: 031-201 9958. E-mail: plantnet@iafrica.com
- The Wildlife and Environment Society of South Africa (WESSA) - KZN Region.
Tel: 031-201 3126. E-mail: wlskzn@saol.com
- Natural Areas Section, Durban Parks Department.
Tel: 031-312 4466. E-mail: katee@prcsu.durban.gov.za
- or visit these web sites:
http://www.wildlifesociety.org.za
http://environment.durban.gov.za
http://parks.durban.gov.za
http://www.botanicalsociety.org.za

Useful References

- Botha, C. and Botha, J. **Bring Nature Back to Your Garden.** A WESSA Handbook with a chapter on alien weeds and lots of suggestions for indigenous alternatives.
- **Conservation of Agricultural Resources Act, 1983** (Act No. 43 of 1983)
- **Guiding Principles for the Landscaping of the Durban Inner City and KwaZulu-Natal Coastal Belt.** A Durban Metro publication available from the cashier at the City Engineers Building, 166 Old Fort Road, Durban.
- Henderson, L. In press (due early 2001). **The Complete Guide to Declared Weeds and Alien Plant Invaders in South Africa.** Plant Protection Research Institute Handbook. Agricultural Research Council.
- Moore, J. **Eradicating Invading Alien Plants in KwaZulu-Natal.** This is a cheap and useful publication available from WESSA at 100 Brand Rd, Glenwood, Durban.
- Vermuelen, *et al.* **A Guide to the Use of Herbicides.** Available from Agricultural Information, Private Bag X 144, Pretoria, 0001.

Acknowledgments

The production of this resource was a joint effort between the Botanical Society of SA, the Durban Metro Environmental Management Branch, the Durban Parks Department and the Wildlife and Environment Society of SA.

With additional assistance from:
Lesley Henderson of the Plant Protection Research Institute, Agricultural Research Council.
Geoff Nichols and Gareth Chittenden who supplied the photographs.

Copies of this poster are available from:
Durban Metro Environmental Management Branch, Development and Planning Building, 166 Old Fort Rd, Durban Tel: 031-300 2517.
Wildlife and Environment Society of SA, 100 Brand Rd., Glenwood, Durban. Tel: 031-201 3126.
Botanical Society of SA. Fax: 031-201 9958.

Ageratina adenophora
Crofton Weed

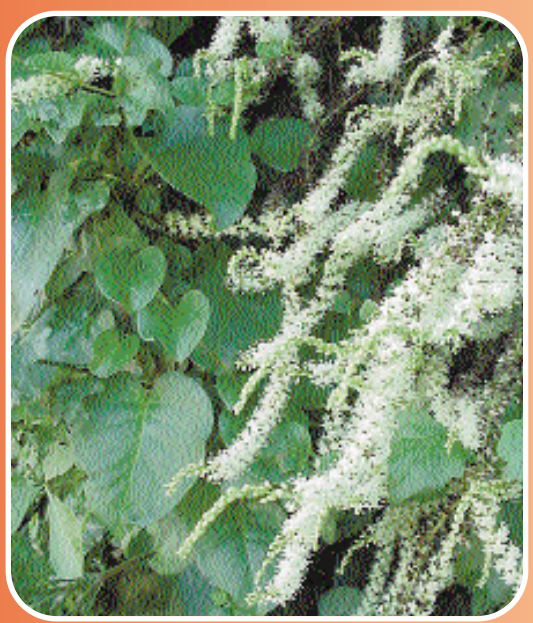
Origin: Central America

Indigenous alternatives:
Barleria obtusa **Bush Violet**
Barleria saxatalis **Small Blue Barleria**
Barleria albostellata
Peristrophe cernua **False Buckwheat**

Albizia procera
False Lebbeck

Origin: Tropical Asia

Indigenous alternatives:
Acacia xanthophloea **Fever Tree**
Albizia adianthifolia **Flat-crown**
Albizia versicolor **Large-leaved False-thorn**
Ficus bubu **Swazi Fig**



Anredera cordifolia
Madeira Vine

Origin: South America

Indigenous alternatives:
Cissus rotundifolia **Bushveld Grape**
Rhoicissus tomentosa **Common Forest Grape**
Tinospora caffra **Orange Grape Creeper**

Araujia sericifera
Moth Catcher

Origin: South America

Indigenous alternatives:
Adenia gummifera
***Mondia whitei* White's Ginger**
***Petopentia natalensis* Propeller Vine**
***Tacazzea apiculata* Crawcraw Vine**

Ardisia crenata
Coral Bush

Origin: South-east Asia

Indigenous alternatives:
Erythroxylum delagoense
Small-leaved Coco Tree
Mitriostigma axillare
Small False Loquat
Pavetta revoluta
Dune Bride's Bush
Psychotria capensis
Black Bird-berry

Bryophyllum delagoense
Chandelier Plant
(= Kalanchoe tubiflora, Bryophyllum tubiflorum, Kalanchoe delagoensis)

Origin: Madagascar

Indigenous alternatives:
***Cotyledon orbiculata* Pig's Ears**
Kalanchoe crenata
Yellow Hairy Kalanchoe
Kalanchoe paniculata
Large Orange Kalanchoe
***Kalanchoe thyrsiflora* White Lady**

Canna indica
Wild Canna or Indian Shot
(not hybrid cultivars)

Origin: Central and South America, and West Indies

(*C.* X *generalis* or some Canna hybrids have also escaped from formal landscapes)

Above: *C.* X *generalis*
Right: *C. indica*

Indigenous alternatives:
***Crocosmia aurea* Falling Stars**
***Gladiolus dalenii* African Gladiolus**
***Kniphofia* spp. Red Hot Pokers**
***Zantedeschia aethiopica* White Arum Lily**

Cestrum aurantiacum
Yellow or Orange Cestrum, and *Cestrum elegans* Crimson Cestrum

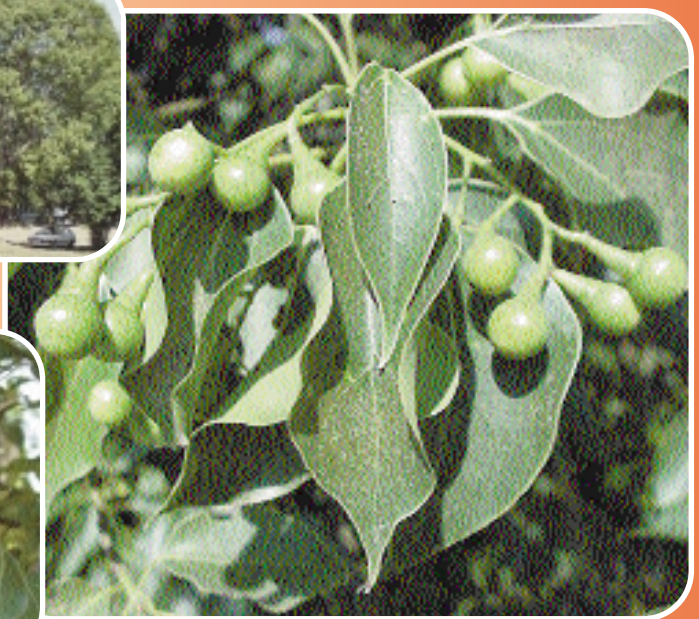
Origin: *C. aurantiacum* - Guatemala
_____ *C. elegans* - Mexico

***C. parqui* Chinese Cestrum and *C. laevigatum* Inkberry are also Category 1 plants.**

Indigenous alternatives:
***Bauhinia tomentosa* Bush Neat's Foot**
***Burchellia bubalina* Wild Pomegranate**
***Peddiea africana* Poison Olive**
***Polygala myrtifolia* September Bush**

Cinnamomum camphora
Camphor Tree

Origin: China, Taiwan and Japan



Indigenous alternatives:
Apodytes dimidiata
White Pear
Cryptocarya latifolia
Broad-leaved Quince
Cryptocarya woodii
Cape Quince

Cortaderia selloana
Pampas Grass
(excluding sterile cultivars)

Origin: South America

***Cortaderia jubata* Pampas Grass is a Category 1 plant, which occurs in Durban.**

Indigenous alternatives:
***Cymbopogon* spp. Turpentine Grasses**
Mariscus solidus
***Miscanthus capensis* East-coast Broom Grass**

Eugenia uniflora
Cherry Hedge or Surinam Cherry

Origin: Brazil and Guyana

Indigenous alternatives:
***Cryptocarya wylei* Red Quince**
***Eugenia natalitia* Common Forest Myrtle**
***Syzygium pondoense* Pondo Waterwood**
***Teclea gerrardii* Zulu Cherry-orange**

Top: *H. gardnerianum* seed

Hedychium coccineum
Red Ginger Lily, and *Hedychium gardnerianum*
Kahili Ginger Lily

Origin: Himalayas

Indigenous alternatives:
***Crinum moorei* Moore's Lily**
Dracaena aletriformis
Large-leaved Dragon Tree
***Sansevieria metallica* Giant Sansevieria**
***Siphonochilus aethiopicus* Wild Ginger**

Hedychium coronarium White Ginger Lily, and *Hedychium flavescens* Yellow Ginger Lily

Origin: ***H. coronarium*** **- India to Indonesia**
H. flavescens **- Himalayas**

Indigenous alternatives:
Crinum moorei **Moore's Lily**
Dracaena aletriformis
Large-leaved Dragon Tree
Plectranthus ecklonii **Large Spur-flower Bush**
Siphonochilus aethiopicus **Wild Ginger**

Above: *H. flavescens*
Right: *H. coronarium*

Left: *I. alba*
Below: *I. indica*

Ipomoea alba Moonflower, and *Ipomoea indica* Morning Glory

Origin: ***I. alba*** **- Tropical America**
I. indica **- West Indies?**

Indigenous alternatives:
Ipomoea albivenia **Climbing Kapok**
Ipomoea ficifolia **Fig-leaved Ipomoea**
Ipomoea mauritiana
Large Forest Ipomoea
Mondia whitei **White's Ginger**

Macfadyena unguis-cati Cat's Claw Creeper

Origin: Mexico to Argentina

Indigenous alternatives:
Senecio tamoides
Canary Creeper
Senecio brachypodus
Senecio pleistocephalus
Strophanthus **spp.**
Poison Ropes

Above: *P. suberosa*
Above right: *P. suberosa*
Right: *P. subpeltata fruits*

Passiflora suberosa
Indigo Berry

Origin: South America

***Passiflora subpeltata* - Granadina, which occurs naturally from Central Mexico to Colombia and Venezuela, is also a Category 1 plant.**

Indigenous alternatives:
Adenia gummifera
***Cissus fragilis* Forest Grape Vine**
***Jasminum multipartitum* Starry Wild Jasmine**
***Jasminum angulare* Wild Jasmine**

Pennisetum setaceum
Fountain Grass

Origin: North Africa

***Pennisetum villosum* Feathertop (excluding the sterile cultivar 'Rubrum') is also a Category 1 plant, which occurs in Durban.**

Indigenous alternatives:
***Aristida junciformis* Gongoni Three-awn**
***Imperata cylindrica* Cottonwool Grass**
Setaria megaphylla
Broad-leaved Bristle Grass
***Setaria sphacelata* Golden Bristle Grass**

Rhus succedanea
(= Toxicodendron succedaneum)
Wax Tree

Origin: Japan to India

Indigenous alternatives:
***Bridelia micrantha* Mitzeerie**
Combretum kraussii
Forest Bushwillow
Galpinia transvaalica
Wild Pride-of-India
***Protorhus longifolia* Red Beech**

Rivina humilis
Rivina or Rouge Plant or Bloodberry

Origin: USA

Indigenous alternatives:
Freesia laxa **Small Red Iris**
Justicia betonica **Paper Plume**
Justicia capensis **Money Plant**
Phaulopsis imbricata
Plectranthus zuluensis
Zulu Spur-flower

Solanum seaforthianum
Small Potato Creeper

Origin: Tropical America

Indigenous alternatives:
Asparagus falcatus
Large Forest Asparagus
Cissus rotundifolia **Bushveld Grape**
Solanum geniculatum **Creeping Potato**
Tinospora caffra **Orange Grape Creeper**

Tecoma stans
Yellow Bells

Origin: Tropical America

Indigenous alternatives:
Ochna natalitia **Natal Plane**
Peltophorum africanum
Weeping Wattle
Pittosporum viridifolium
Cheesewood
Thespesia acutiloba
Wild Tulip Tree

Thelechitonia trilobata
Wedelia or Singapore Daisy

Origin: Tropical America

Indigenous alternatives:
Arctotheca calendula **Cape Weed**
Gazania rigens **Trailing Daisy**
Othonna carnosa
Bulbine frutescens **Spreading Bulbine**

Thevetia peruviana
Yellow Oleander

Origin: Mexico and West Indies

Indigenous alternatives:

Ochna natalitia **Natal Plane**
Peltophorum africanum
Weeping Wattle
Thespesia acutiloba
Wild Tulip Tree

Orange variety.

Triplaris americana
Ant Tree

Origin: South Panama to South-east Brazil

Indigenous alternatives:
Barringtonia racemosa
Powder-puff Tree
Erythrina lysistemon
Common Coral Tree
Croton sylvaticus
Forest Fever-berry

Bauhinia variegata
Pink Camel's Foot or Orchid Tree
& *Bauhinia variegata* var. *candida*
White Camel's Foot

Left: var. *candida*

Origin: East Asia

Bauhinia purpurea **Butterfly Orchid Tree, which is also in Category 3, is very similar.**

Indigenous alternatives:

Afzelia quanzensis **Pod Mahogany**
Bauhinia galpinii **Pride-of-De Kaap**
Calodendrum capense **Cape Chestnut**
Schotia brachypetala **Weeping Boer-bean**

Jacaranda mimosifolia
Jacaranda

(excluding sterile cultivar 'Alba')

Origin: North-west Argentina

Indigenous alternatives:

Calodendrum capense
Cape Chestnut
Millettia grandis **Umzimbeet**
Peltophorum africanum
Weeping Wattle
Schotia brachypetala
Weeping Boer-bean

Ligustrum lucidum
Chinese Wax-leaved Privet

Origin: Korea and China

Indigenous alternatives:

Apodytes dimidiata **White Pear**
Chionanthus peglerae
White Pock Ironwood
Olea woodiana **Forest Olive**
Protorhus longifolia **Red Beech**

Lilium formosanum
St Joseph's Lily

Origin: Taiwan

Indigenous alternatives:
Crinum bulbispermum Orange River Lily
Crinum macowanii River Lily
Crinum moorei Moore's Crinum
Hibiscus calyphyllus Large Yellow Wild Hibiscus

Nephrolepis exaltata
Sword Fern (excl. cultivars)

Origin: North and Central America and West Indies

Indigenous alternatives:
Microsorium scolopendrium Creeping Dune Fern
Nephrolepis biserrata Giant Forest Fern
Rumohra adiantiformis Leather Fern
Stenochlaena tenuifolia

Plectranthus comosus
Woolly Plectranthus

(*P. barbatus* has been misapplied to this species)

Origin: India

Indigenous alternatives:
Leonotis intermedia Broad-leaved Leonotis
Plectranthus ecklonii Large Spur-flower Bush
Pycnostachys reticulata Slender Pycnostachys
Tetradenia riparia Iboza

Pontederia cordata
Pickerel Weed

Origin: Brazil and Argentina

Indigenous alternatives:
Cyperus textilis **Tall Star Sedge**
Hygrophila auriculata
Elephant's Dilemma
Zantedeschia aethiopica
White Arum Lily
Zantedeschia albomaculata
Spotted-leaved Arum

Psidium cattleianum
Strawberry or Cherry Guava
(= Psidium littorale* var. *longipes)

Origin: Brazil

Indigenous alternatives:
Dombeya rotundifolia
Common Wild Pear
Eugenia natalitia
Common Forest Myrtle
Heteropyxis natalensis
Lavender Bush

Senna pendula
Rambling Cassia

Origin: South America

Senna bicapsularis **Rambling Cassia has also escaped formal landscapes.**

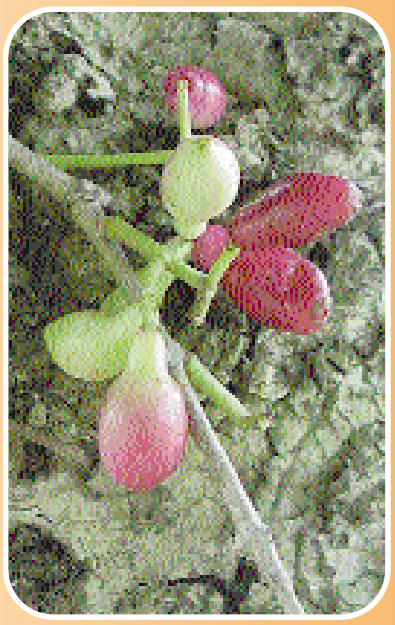
Indigenous alternatives:
Calpurnia aurea **Natal Laburnum**
Crotalaria capensis **Cape Rattle Pod**
Phyllanthus reticulatus **Potato Bush**
Senna petersiana **Monkey Pod**

Syzygium cuminii
Jambolan

Origin: Indo-Malaysia

***Syzygium jambos* Rose Apple, which is in Category 3, has also escaped formal landscapes in Durban.**

Indigenous alternatives:
***Bridelia micrantha* Mitzeerie**
***Syzygium cordatum* Umdoni**
Syzygium guineense
Water Pear



Aristolochia elegans
Dutchman's Pipe

Origin: Brazil

Indigenous alternatives:
Dioscorea cotinifolia
Wild Yam
Dioscorea sylvatica
Forest Elephant's Foot
Ipomoea ficifolia
Fig-leaved Ipomoea
Vernonia angulifolia
Trailing Vernonia

Callisia repens
Dwarf-striped Inch Plant

Origin: Southern Mexico

Indigenous alternatives:
Crassula expansa
Fragile Crassula
Crassula multicava
Fairy Crassula
Crassula sarmentosa
Plectranthus strigosus
Small Money Plant

Coreopsis lanceolata
Tickseed

Origin: Eastern USA

Indigenous alternatives:
Berkheya speciosa
***Gazania krebsiana* Bush Gazania**
***Gazania rigens* Trailing Gazania**
Haplocarpha scaposa
False Gerbera

Right: variegated form

Duranta erecta
Forget-me-not-tree

Origin: USA to Brazil

Indigenous alternatives:
***Dovyalis caffra* Kei Apple**
***Dovyalis longispina* Natal Apricot**
***Grewia occidentalis* Cross-berry**
***Plumbago auriculata* Plumbago**

Mimosa pudica
Sensitive Plant

Origin: Tropical, North and South America

***Mimosa pigra* Giant Sensitive Plant, which is in Category 3, has escaped formal landscapes elsewhere in South Africa.**

Indigenous alternatives:
***Indigofera spicata* Indigo**
***Indigofera micrantha* Forest Indigo**
***Tephrosia capensis* Small Pink Tephrosia**
Tephrosia grandiflora
Large Pink Tephrosia

Mirabilis jalapa
Four O'clock

Origin: Tropical America

Indigenous alternatives:

Barleria delagoensis

Dissotis canescens
Pink Wild Tibouchina

***Orthosiphon labiatus* Shell Bush**

Thunbergia natalensis
Natal Blue Bell

Schefflera actinophylla
Queensland Umbrella Tree
(= *Brassaia actinophylla*)
and *Schefflera arboricola* Hawaiian Elf

Origin: *S. actinophylla* New Guinea and Tropical Australia and *S. arboricola* Taiwan

Indigenous alternatives:

Cussonia nicholsonii
Natal Coast Cabbage Tree

Cussonia sphaerocephala
Natal Forest Cabbage Tree

***Cussonia spicata* Common Cabbage Tree**

***Cussonia zuluensis* Zulu Cabbage Tree**

Below:
S. arboricola

Above: *S. actinophylla*
Left: *S. arboricola*
variegated form

Senna occidentalis
Stinking Weed or Wild Coffee

Origin: Tropical America?

***Senna septemtrionalis* and *Senna hirsuta* have also escaped formal landscapes in Durban.**

Indigenous alternatives:

***Calpurnia aurea* Natal Laburnum**

***Hypericum revolutum* Curry Bush**

***Ochna serrulata* Small-leaved Plane**

***Psychotria capensis* Black Bird-berry**