

Cassowary Coast Local Area Biosecurity Plan 2019-2023 Invasive Plants and Animals



EXECUTIVE SUMMARY

The Cassowary Coast Local Area Biosecurity Plan (the Plan) has been developed to provide a framework for the management of priority weeds and pest animals in the Cassowary Coast Regional Council Local Government area.

The plan draws on the experience and knowledge of local stakeholders to set realistic and strategic goals that will encourage community participation and foster a truly co-operative approach to pest management in the region. Local stakeholders meet regularly to develop and oversee the implementation of the Plan. Collectively the Stakeholders form the Natural Assets Management Advisory Committee (CCRC NAMAC) which is hosted and chaired by Cassowary Coast Regional Council. The CCRC NAMAC works closely with Far North Region of Councils NAMAC to ensure alignment of regional effort and knowledge.

The plan outlines areas of pest management responsibilities for individuals, agencies and organisations. It provides landholders with strategic direction and some simple tools to enable them to set priorities for pest management on their own property.



CCRC NATURAL ASSETS ADVISORY COMMITTEE MEMBERSHIP & PURPOSE

- Cassowary Coast Regional Council (Chair)
- Department of Agriculture and Fisheries - Biosecurity QLD
- Department of Environment and Science - Queensland Parks and Wildlife Service
- Department of Transport and Main roads
- Department of Defence
- Ergon Energy
- Terrain NRM
- Cane growers
- Innisfail Babinda Cane Productivity Services
- Australian Banana Growers Council
- Agforce
- Johnstone Catchment Association
- C4 (Community for Coastal and Cassowary Conservation)
- Tully Sugar
- MSF Sugar
- Giringun Aboriginal Corporation
- FNQROC

The role of the CCRC NAMAC in regards to biosecurity is to;

1. Develop, monitor and review a Biosecurity Plan for invasive biosecurity matter for all land tenures in the local government area.
2. Prioritise weeds and pest animals (invasive biosecurity matter and locally declared pest species) and develop specific obligations tailored to ensure pests are being managed to a standard that is accepted by the community.
3. Ensure all stakeholders formally acknowledge and implement their roles and responsibilities in relation to the Biosecurity Plan.

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LIST OF ACRONYMS AND BRIEF DESCRIPTION OF ORGANISATIONS/ PROGRAMS.

4TW	Tropical Weeds Eradication Program – A National Eradication Program delivered by Biosecurity Queensland (BQ), targets the eradication of five weeds listed as restricted matter (category 2, 3, 4 & 5) – Mikania vine, Miconia calvenscens, Miconia racemosa, Miconia nervosa and Limnocharis flava.
BQ	Biosecurity Queensland coordinates the government’s efforts to prevent, respond to, and recover from pests and diseases that threaten the economy and environment. BQ is made up research, operations and policy. BQ is part of the Department of Agriculture and Fisheries (DAF).
CCRC	Cassowary Coast Regional Council – Council for Local Government area covered by this plan.
CCRC NAMAC	Cassowary Coast Regional Council Natural Assets Management Advisory Committee.
DES	Department of Environment and Science (Queensland Parks and Wildlife Service).
EPBC	Environment Protection and Biodiversity Conservation (Federal Act)
FNQROC	Far North Queensland Regional Organisation of Councils is made up of membership of Councils from Ingham north to Cooktown and west to Carpentaria in Far North Queensland. The organisation fosters cooperation and resource sharing between councils and advocates regional positions and priorities.
GBO	The General Biosecurity Obligation.-The principal obligation under the Biosecurity Act 2014 requires a person to take action to reduce biosecurity risks.
Terrain NRM	Terrain Natural Resource Management - Regional Natural Resource Management organisation working over the Wet Tropics region.

1. PURPOSE OF THE PLAN

“To provide a strategic framework for the management of invasive plants and animals in the Cassowary Coast Regional Council local government area.”

1.1 OUR MISSION:

To work cooperatively and strategically to reduce the economic, environmental and social impacts of invasive plants and animals across the Cassowary Coast. Using the plan as a guide, all land managers in our region can work co-operatively to meet their General Biosecurity Obligation in relation to the management of invasive biosecurity matter.

CCRC NAMAC WILL ACHIEVE THIS BY:

- increasing the communities awareness of weeds and pest animals;
- developing priorities for the strategic investment of resources;
- working cooperatively across all land tenures to target priority species and areas;
- promoting effective methods for prevention and control;
- ensuring those who are dealing with invasive biosecurity matter are discharging their General Biosecurity Obligations (GBO),

1.2 OUR GOALS:

The Plan will;

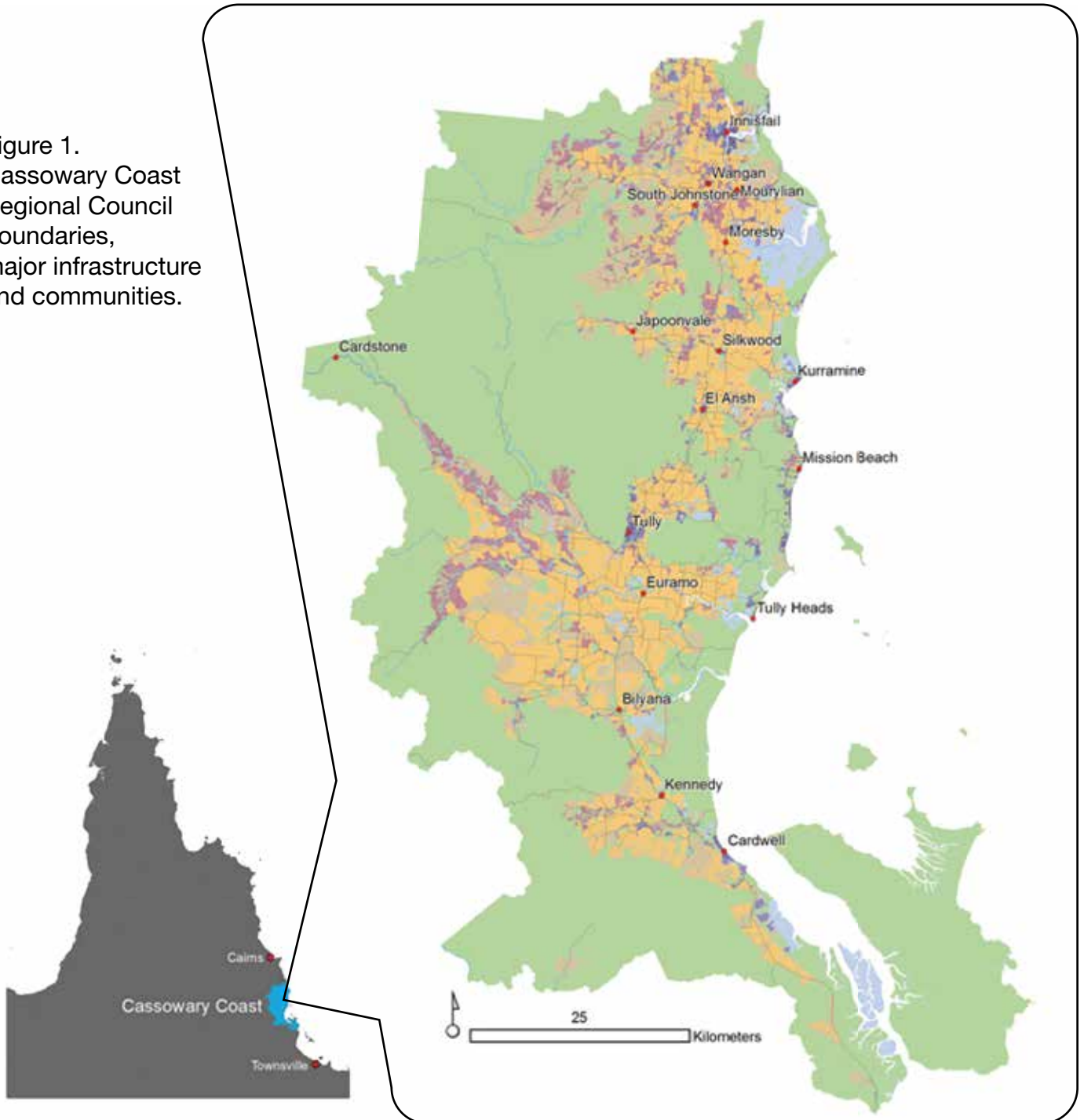
- Provide clear direction on General Biosecurity Obligation (GBO) for land managers in the region;
- Set strategies, activities, objectives, and responsibilities for cooperative pest management in the region;
- Identify opportunities for cooperative integrated pest management in the form of combined programs and catchment management groups;
- Set up a framework for monitoring and evaluation of the effectiveness of pest management across the region;
- Inform and contribute to regional, state and national planning processes regarding local pest management priorities;
- Raise awareness of local issues using available networks.



2. AREA COVERED BY THIS PLAN

This plan covers all land tenures and uses within the Cassowary Coast Regional Council local government area.

Figure 1.
Cassowary Coast
Regional Council
boundaries,
major infrastructure
and communities.



3. LEGISLATION GOVERNING PEST MANAGEMENT

3.1 BIOSECURITY ACT 2014

The Biosecurity Act 2014 (the Act) commenced on 1 July 2016. It ensures a consistent, modern, risk-based and less prescriptive approach to biosecurity in Queensland.

The Act relates to the management of prohibited and restricted matter. A list of Prohibited and Restricted matter as defined in the Biosecurity Act 2014 is contained Appendix 1.

3.2 SUBORDINATE LOCAL LAWS

Local pests that are not declared under State legislation can be declared under the Subordinate Local Law No 3 (Community and Environment Management) 2011.

Local declarations are used as a compliance tool in areas where pest species threaten important natural assets and where a priority targeted asset protection program has been identified and is being implemented. A list of locally declared pests is included in Appendix 2 - Pests declared under the Subordinate Local Law No 3 (Community and Environmental Management) 2011.

4. WHAT IS THE GENERAL BIOSECURITY OBLIGATION?

All Queenslanders have a 'general biosecurity obligation' (GBO) under Queensland's Biosecurity Act 2014. This means that everyone is responsible for managing biosecurity risks that are:

- under their control and
- that they know about, or should reasonably be expected to know about.

Under the GBO, individuals and organisations whose activities pose a biosecurity risk must:

- take all reasonable and practical steps to prevent or minimise each biosecurity risk.
- minimise the likelihood of causing a 'biosecurity event' and limit the consequences if such an event is caused.
- prevent or minimise the harmful effects a risk could have, and not do anything that might make any harmful effects worse.

4.1 WHAT ARE 'BIOSECURITY RISKS' AND 'BIOSECURITY EVENTS'?

To properly understand your responsibilities under the GBO, you need to understand what is meant by 'biosecurity risks' and 'biosecurity events'. A biosecurity risk is the risk that exists when you deal with:

- any pest, disease or contaminant
- something that could carry a pest, disease or contaminant (e.g. animals, plants, soil, equipment—known as 'carriers').

A biosecurity event is an event that:

- has, or may have, a significant harmful effect on human health, social amenity, the economy, or the environment and
- is caused by a pest, disease or contaminant.

The GBO shares the responsibility for managing biosecurity risks more broadly so that we can reduce the likelihood of a biosecurity event occurring.

4.2 WHAT BIOSECURITY RISKS ARE YOU EXPECTED TO KNOW ABOUT?

You are responsible for managing biosecurity risks that you know about or could reasonably be expected to know about. You are not expected to know about all biosecurity risks, but you are expected to know about risks associated with your day-to-day work and your hobbies.

For example:

- If you are a commercial grower, you are expected to stay informed about the pests and diseases that could affect or be carried by your crops, as well as weeds and pest animals that could be on your property. You are also expected to manage them appropriately.
- If you are a livestock owner, you are expected to stay informed about pests and diseases that could affect or be carried by your animals, as well as weeds and pest animals that could be on your property. You are also expected to manage them appropriately.
- If you are a landowner, you are expected to stay informed about the weeds and pest animals that could be on your property. You are also expected to manage them appropriately.
- If you transport agricultural produce, you are expected to check whether the transportation could spread diseases or pests. If it could, you are expected to manage this appropriately.
- If you live or work in a highly promoted biosecurity zone (e.g. are a builder or developer in a fire ant biosecurity zone), you are expected to know what you can and cannot move into and out of the zone, and what other precautions are required.
- If you are a residential gardener, you are not expected to know about all the biosecurity risks that might affect plants. However, you are expected to know basic information about how to reduce the risk of spreading a pest or disease, as well as the problem pests in your local area.

4.3 WHAT ARE REASONABLE AND PRACTICAL STEPS?

The steps that are considered ‘reasonable and practical’ will vary depending on the situation and the risks involved.

Key factors include:

- how likely an activity is to pose a risk—the more likely it is, the more action you are expected to take.
- how harmful an activity could be (e.g. whether it could cause human deaths, extensive productivity losses or other significant economic or community losses)—the more potentially harmful it is, the more action you are expected to take.
- how much the person managing the activity knows, or should reasonably be expected to know, about the risk (e.g. how dangerous it is and how it is spread)—the more you know, or should be expected to know, the more action you are expected to take.
- what methods are available to minimise the risk (e.g. equipment and work practices)—the more readily available a method is, the more action you are expected to take.

4.4 HOW CAN YOU REDUCE BIOSECURITY RISKS?

In most cases, you can reduce biosecurity risks by following simple steps.

For example:

- Manage pests (e.g. declared weeds and wild dogs) and diseases on your property that could have negative impacts on neighbouring properties and local industries.
- Carefully examine animals before moving them. Moving animals will pose a biosecurity risk if they are carrying pests or diseases that could affect agricultural industries. Check for animal diseases that could be spread by contact with other animals, and for weed seeds. Isolate in-coming stock in a holding yard for a period of 7 days.
- Closely inspect pot plants and potting mix before taking them home. They will pose a biosecurity risk if they are carrying fire ants or electric ants, or plant pests, weeds or diseases that are not already present in your suburb or region.

4.5 WHAT WILL HAPPEN IF SOMEONE DOES NOT MEET THEIR OBLIGATION?

A biosecurity officer can also issue a biosecurity order requiring specific action to be taken within a reasonable time. When necessary, Biosecurity Queensland, or the Cassowary Coast Council can take formal compliance action to ensure an individual, business or other organisation improves the way they manage biosecurity risks. Not complying with the GBO is an offence.

5. HOW TO MEET YOUR GENERAL BIOSECURITY OBLIGATION

The following tables identify different groups of land owners, managers, or organisations that have a role to play in management of invasive biosecurity matter (pest plants and animals).

To meet your GBO

STEP 1. The identified actions identified below are the minimal actions required for all landholders, managers and tenants that are responsible for managing a property or parcel of land

STEP 2. Specific sector based obligations are listed below the all landholders section indicating specific actions related to your industry, business or area of responsibility ie a power corridor manager or nursery retailer.

STEP 3. For priority target weeds there are additional clearly defined requirements – these are located within the actions plans section of document and should be read in conjunction with table 5.1

5.1 SECTOR BASED OBLIGATIONS AND ACTIONS

	GENERAL BIOSECURITY OBLIGATIONS	ACTIONS (you may be required to meet some or all these to discharge your biosecurity obligations)
ALL LANDHOLDERS AND LAND MANAGERS	<ul style="list-style-type: none"> • Be aware of the priority weeds and pest animals in the Cassowary Coast Region. • Report new or suspected pests to the CCRC or BQ. • Do not move soil or machinery that may have biosecurity risks attached (i.e. weed seeds or dirt). • Prevent the spread of declared weeds off your property by undertaking control, prior to flowering period in high risk spread areas such as watercourses, roadways and property boundaries • Control feral pigs and wild dogs on your property using methods endorsed by this plan • Reduce the amount of CCRC priority pests on your property (see action templates in this document) • Provide/maintain access for existing pest control programs • Clean all machinery and water craft when moving between different waterways • Do not keep rabbits, ferrets or other prohibited animals or plants • Do not dump unwanted aquariums and their contents into dams or natural waterways • Do not dump garden waste- compost or dispose of at transfer stations. • Install and follow property and site specific signage identifying any Biosecurity risks 	<ul style="list-style-type: none"> • Develop and implement a property biosecurity plan • Improve property biosecurity by establishing vehicle, machinery and people - property hygiene protocols (including clean down areas, no-go areas, entry registers etc.) • Ensure equipment leaving or entering your property is clean of contaminants • Protect your neighbours and local industries by controlling weeds on property boundaries, watercourses and roadways • Discuss/ coordinate control programs with neighbours. • Participate in coordinated feral animal control programs • Use registered chemicals according to the label directions – particularly vertebrate pesticides

	GENERAL BIOSECURITY OBLIGATIONS	ACTIONS (you may be required to meet some or all these to discharge your biosecurity obligations)
PRIMARY PRODUCERS: SUGAR CANE AND/ OR BANANAS	<ul style="list-style-type: none"> • Survey for weeds/animals during routine maintenance • Monitor the presence and damage caused by feral pigs • Monitor the occurrence of wild dogs on your property • Ensure hygiene protocols are developed and followed 	<ul style="list-style-type: none"> • Provide damage estimates to your industry contact • Know where these pest animals are (or travel) to help direct control efforts • Be aware of priority risks to your industry and LGA
PRIMARY PRODUCERS: GRAZING	<ul style="list-style-type: none"> • Ensure fodder crops (e.g. Leuceana, pasture grasses.) are contained to production areas and managed to reduce impact on neighboring properties 	<ul style="list-style-type: none"> • Control fodder crops outside of the production area as required. i.e implement codes of practice, or keep waterways clean)
PRIMARY PRODUCERS: HORTICULTURE OTHER THAN BANANAS	<ul style="list-style-type: none"> • Ensure planting stock is clean and free from contaminants 	<ul style="list-style-type: none"> • Monitor and control plantation species growth in drains, creeks and other areas outside of the production areas. • Ensure equipment leaving or entering your property is clean of contaminants
PRIMARY PRODUCERS: FORESTRY	<ul style="list-style-type: none"> • Ensure non-native species are contained to production areas • Ensure planting stock is clean and free from contaminants 	<ul style="list-style-type: none"> • Monitor and control plantation species growth in drains, creeks and other areas outside of the production areas. • Ensure equipment leaving or entering your property is clean of contaminants
RETAIL OUTLETS INCLUDING: PLANT NURSERIES, MARKET GARDENERS, PET SHOPS	<ul style="list-style-type: none"> • Ensure potting medium and plant stock is clean and free from weed seeds and ants before movement • Prevent the sale of restricted plants and problem environmental weeds • Prevent the sale of pest fish and other prohibited animals ie rabbits • Do not dump unwanted aquariums and their contents into dams or natural waterways • Dispose of green waste responsibly 	<ul style="list-style-type: none"> • Find out weed and other pest risk information before new stock lines are introduced • Take green waste to a transfer station • Stock/ sell non-invasive species • Ensure your nursery/ growing areas are clean and weed free • If you are not sure if something is a weed, check with the CCRC nursery or land protection officers • Label all stock appropriately • Promote responsible pet ownership including the GBO as it applies to aquariums and disposal of unwanted pets.

	GENERAL BIOSECURITY OBLIGATIONS	ACTIONS (you may be required to meet some or all these to discharge your biosecurity obligations)
LANDHOLDERS: RURAL AND URBAN RESIDENTIAL	<ul style="list-style-type: none"> • Do not keep rabbits, ferrets or other prohibited animals or plants • Do not dump unwanted aquariums and their contents into dams or waterways • Dispose of green waste responsibly 	<ul style="list-style-type: none"> • Take green waste to a transfer station • Select locally suitable garden plants • Participate in local area management activities (Landcare or community groups often undertake environmental activities) • Report occurrence of priority pests and weeds • Install pest exclusion fencing
PUBLIC LAND MANAGERS (QPWS, DNRM, DEPARTMENT OF DEFENCE, LOCAL GOVERNMENT)	<ul style="list-style-type: none"> • Education Awareness • Pre works risk assessment • Aerial/ ground surveys • Vehicle/ equipment hygiene • Visitor/user management • Data collection • Routine monitoring 	<ul style="list-style-type: none"> • Engage with neighboring land owners in joint management programs • Maintain operational works programs and property pest management plans • Undertake fire planning & management • Release and monitor biocontrol
CORRIDOR AND INFRASTRUCTURE MANAGERS (ROAD AND RAIL, POWER AND COMMUNICATIONS, WATER AND SEWAGE NETWORK)	<ul style="list-style-type: none"> • Ensure best management practice from operations. • Report any outbreaks immediately • Risk assessment • Aerial/ ground surveys • Allocate resources to prevention and control activities • Vehicle/ equipment hygiene • Signage in high risk areas 	<ul style="list-style-type: none"> • Manage control targets on managed easements and tenures • Engage with neighboring land owners in joint management programs • Allocate sufficient resources to support management activities • Maintain GIS data for operational and design activities • Monitoring • Work with biosecurity staff and contractors to maintain buffer areas • Manage all activities to minimize the risk of spread of priority pests. • Meet the expectations of landholders in regard to accessing properties

5.2 COMMITTEES AND LEGISLATIVE ROLES SUPPORTING BIOSECURITY MANAGEMENT ACTIVITIES

FNQROC NATURAL ASSET MANAGEMENT ADVISORY COMMITTEE	<ul style="list-style-type: none"> • Maintain collaborative partnerships, advocacy and coordination across regional stakeholders • Undertake regional approaches to planning where relevant • Liaise with local, state and commonwealth government • Liaise with research organisations and programs
CASSOWARY COAST NATURAL ASSET MANAGEMENT ADVISORY COMMITTEE <small>(see Membership page 3)</small>	<ul style="list-style-type: none"> • Maintain collaborative partnerships, advocacy and coordination across local stakeholders • Seek internal/external resources • Participate in risk assessment • Liaise with research organisations and programs • Cost and develop long term operational works programmes • Deploy coordinated early intervention to new outbreaks • Deliver extension and communication • Deliver disaster weed spread prevention protocols when required • Disseminate information to represented groups • Report on progress • Negotiate management programs with road and fire management agencies
LOCAL GOVERNMENT	<ul style="list-style-type: none"> • Education Awareness • Risk assessment • Aerial/ ground surveys • Vehicle/ equipment hygiene • Visitor/user management • Data collection • Monitoring • Develop property pest management plans and procedures • Fire planning & management
BIOSECURITY QUEENSLAND (DAF)	<ul style="list-style-type: none"> • Education Awareness • Risk assessment • Aerial/ ground surveys • Vehicle/ equipment hygiene • Education and awareness • Capacity building • Data collection • Monitoring • Legislative advice • Invasive biology and management research • Release and monitor biocontrol • Conduct control and impact research

6 PRIORITIES AND BIOSECURITY ACTION PLANS

6.1 PRIORITY WEEDS AND PEST ANIMALS

(a full list of all restricted, prohibited and locally declared plants and animals is contained in Appendix 1 and 2).

In addition to the 'General Biosecurity Obligation' for all weeds and animals and in order to focus efforts the biosecurity plan identifies the priority weeds and pests animals of the Cassowary Coast region (Section 7). A biosecurity action plan has been developed for each of these priority species. Within the biosecurity action plans there are specific actions and targets to assist in meeting your GBO for high priority weeds and pest animals, These plans also indicate if programs targeting specific invasive species have been initiated.

The biosecurity action plans contain a description and photo of each specimen, a calendar to guide control works and a known distribution map with management zones. These represent the minimum requirements to meet the GBO for each of these priority species.

6.2 BIOSECURITY ACTION PLANS FOR PRIORITY SPECIES

Action plans have been developed for priority pest plant and animals which occur in the Cassowary Coast region. The action plans detail specific requirements and strategies for management in addition to what is required of all people under the general biosecurity obligation. The action plans outline management objectives based on established principles of pest management and are designed to assist all stakeholders to:

- Understand the biology and distribution of priority pest plant and animals.
- Implement appropriate strategic actions at the most appropriate time to have the greatest impact on the targeted pest (best management practice) and ensure they meet their general biosecurity obligation.
- Plan and coordinate pest management activities with neighbouring properties by targeting common management objectives and goals within relevant geographic areas.

Fig 2. Outline of the material contained within biosecurity action plans for priority species.

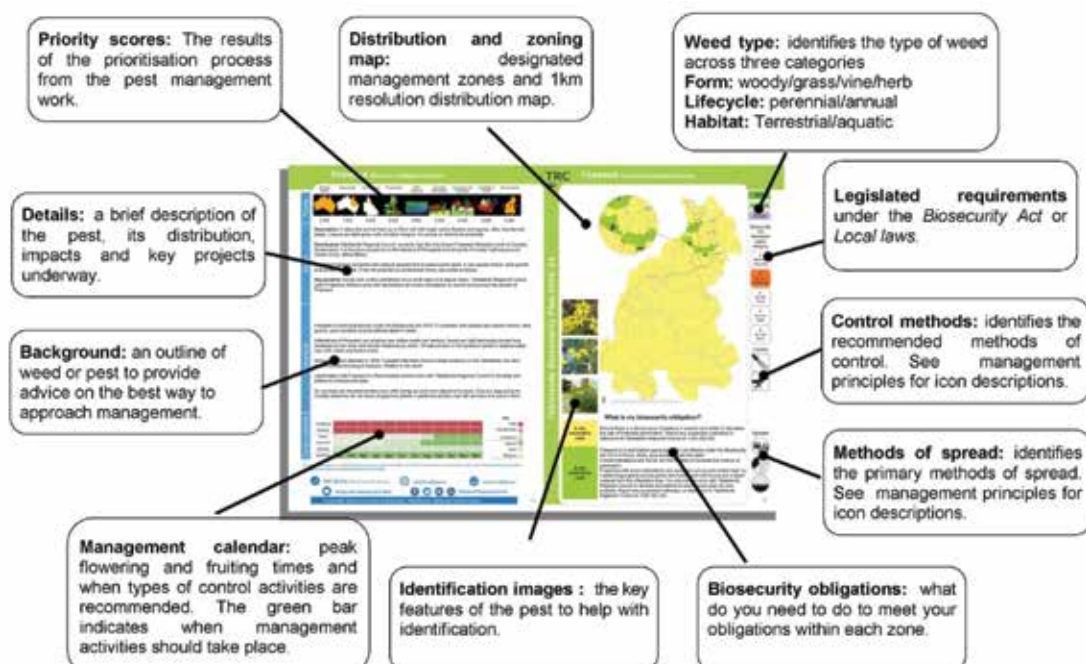
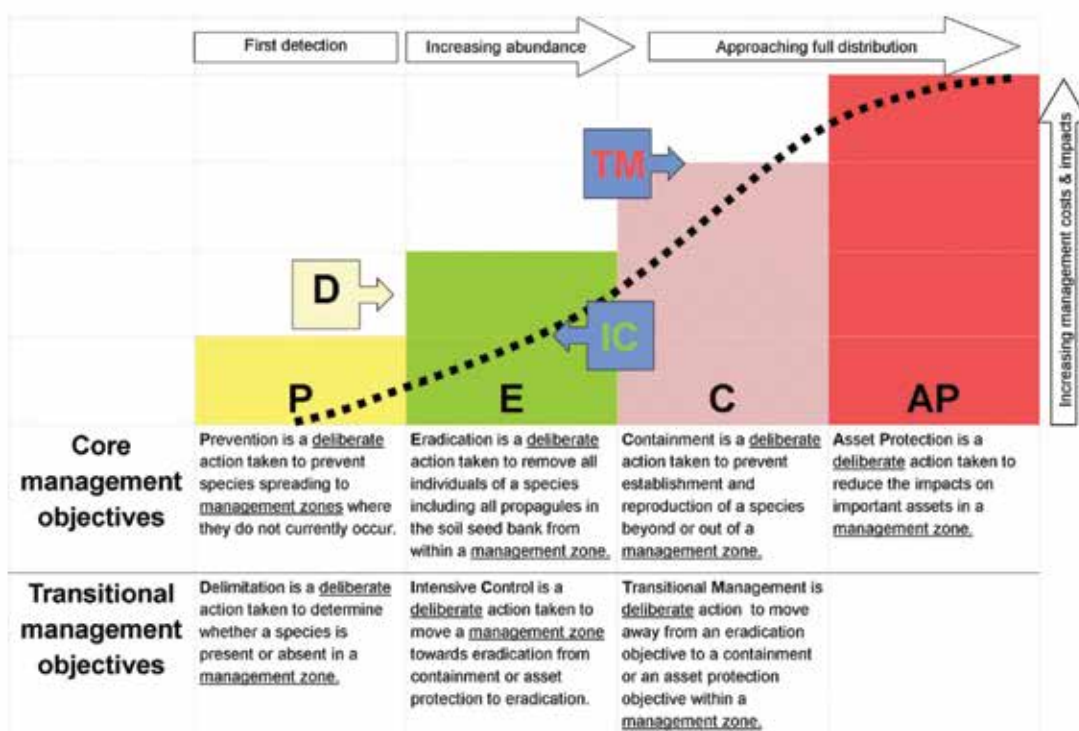


Fig 3. The invasion curve concept describes the management objectives in each of the management zones in the biosecurity action plan.



The action plans use catchment based management zones to identify the location-specific management actions required for each priority pest plant and animal. The management zones are based on the pest management concept of the ‘invasion curve’. The invasion curve describes how as a biosecurity issue becomes more abundant over time the management options and strategies available to manage it or its impacts also change. At each stage of the curve, as the area occupied by the pest or weed increases, the implied impact and required resources to respond also increase.

The key message is that prevention and early intervention are the most cost-effective (proactive) actions we can take. When these actions are not successful we need to carefully consider the most strategic (reactive) management approaches to ensure local impacts and potential spread to new areas is reduced.

7 PRIORITY WEEDS FOR THE CCRC AREA

Common Name	Scientific Name	Biosecurity Act Category	Locally Declared
limncharis, yellow burrhead	Limncharis flava	2,3,4,5	
miconia tree	Miconia calvescens	2,3,4,5	
mikania vine	Mikania micrantha	2,3,4,5	
pond apple	Annona glabra	3	
water hyacinth	Eichhornia crassipes	3	
hymenachne or olive hymenachne	Hymenachne amplexicaulis	3	
hygrophila	Hygrophila costata)	3	
kudzu	Pueraria montana var. lobata	3	
parthenium	Parthenium hysterophorus	3	

Common Name	Scientific Name	Biosecurity Act Category	Locally Declared
prickly acacia	Vachellia nilotica	3	
cabomba	Cabomba caroliniana	3	
water lettuce	Pistia stratiotes	3	
Siam weed	Chromolaena odorata	3	
aleman grass	Echinochloa polystachya		Yes
mexican bean tree	Cecropia spp.	2,3,4,5	
brillantaisia	Brillantaisia lamium		Yes
thunbergia	Thunbergia grandiflora syn. T. laurifolia	3	
kosters' curse	Clidemia hirta	2,3,4,5	
feral pig	Sus Scrofa	3,4,6	
wild dog	Canis familiaris	3,4,5,6	

8 KEY TO CONTROL METHODS / KEY TO MODES SPREAD

Key to control methods



Frill or stem injection

Herbicide can be applied to woody weeds and trees via cuts or frills made close to the ground around the trunk or stem. This approach is best used when it is ok to leave the dead plant standing.



Basal bark

Herbicide can be applied to woody weeds or vines with a low pressure spray (which usually includes diesel or synthetic oil) to the lower stem. This method is not suited to use near or in water ways.



Cut stump

Many vines, trees and woody weeds can be controlled by applying herbicide to the freshly cut stem. The application is made quickly with a dabber or spray before the plants vascular tissue closes over.



Chop or grub

Many weeds can be selectively managed manually by grubbing or chopping. This approach is useful for reducing the competition from weeds while native vegetation or desirable plants re-establish.



Drill/stem injection

Herbicide can be applied as a measured dose into evenly-spaced, downward-facing holes drilled near the base of each stem. Cordless or petrol-powered drills are usually used due to their portability.



Best practice grazing

Carefully managing stocking rates will keep healthy ground-cover which provides competition for many weeds. Grazing can also be used in some situations to knock weeds down prior to control.



Hand removal

Many weeds can be removed manually, particularly when they are at a seedling stage. Hand weeding is very selective and can be used where as little as possible disturbance is required.



Foliar spray

Most weeds can be controlled at various life stages by applying herbicide via a spray. Sprays applicators can be low or high pressure and are suited to covering larger areas or dense infestations.



Biocontrol

The release of carefully selected natural pests or diseases of plants and animals can control them, or to interrupt their reproduction. Biocontrol is most effective when integrated with other control tools.



Slashing

Slashing can often be used to reduce the growth or reproduction of many weeds and is particularly useful before other control actions. Timing is critical in order to prevent the spread of seeds or fragments.



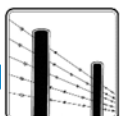
Mechanical removal

Large scale infestations may require mechanical removal or control. Machinery can also be used to clean up after control activities but will usually require follow-up to control and prevention work.



Fire

A well planned and timed fire can be a very effective management tool which can reduce or stimulate dormant seeds or control living plants. It is most suited to fire adapted vegetation types.



Exclusion fencing

There are a wide range of fencing materials and designs to protect domestic and agricultural assets. Fencing can also be used manage grazing pressure or access to reduce weed or disease spread.

**Pesticide**

Pesticides are used in certain situations to control anything from ants to wild dogs. There are strict usage and permitting requirements for many pesticides. They can be an effective tool over large areas.

**Trapping**

Trapping is widely used for feral pigs but can also be used to control wild dogs, feral cats and feral deer. Trapping is labour intensive but can very target specific when conducted using best practice tools.

**Shooting**

Shooting or hunting is sometimes used to control individual animals. It is less usually less effective and even disruptive to other control strategies, but is a useful tool to supplement trapping and baiting.

Key to modes spread

**Droppings**

Many plants have evolved to use animals to spread seeds by producing a tasty fruit. Seeds are eaten along with the flesh of the fruit and can be dispersed in droppings up to kilometres away.

**Illegal dumping**

Deliberate or accidental spread of many plants can occur when green waste is not disposed of responsibly. Areas of bushland, creeks and farmland often suffer impacts from dumped garden plants.

**Machinery and vehicles**

Slashers and earthworks equipment are most commonly blamed, for moving pests, but cars, 4wds, motorcycles, boats and caravans are all capable of moving pest plants and animals great distances.

**People and animals**

Some plants have seeds adapted to stick to and hitch a ride on passing animals and can move long distances attached to animals fur or peoples clothing.

**Stock, raw materials & produce**

Raw materials and produce including hay, animal feed, seed mixes and even livestock can contain or carry weed seed or other biosecurity risks like invasive ants, pathogens or diseases.

**Vegetative**

Many plants can spread from cuttings, stem or root fragments. For some species this is their primary means of reproduction but for others it is in addition to producing seeds or spores.

**Water**

Many aquatic plants rely entirely on water to spread their seeds. Others have seeds or fragments which can float for long distances and move during regular flows or on flood events.

**Wind**

Many plants have seeds which are lightweight with attachments to help them glide or float on the air or in the wind. The lightweight seeds can also get caught on vehicles and clothing.



APPENDIX 3
Priority Weeds and Action Plans for the CCRC
Local Government Area

Miconia (*Miconia calvescens*)

National priority

State priority

Previous local

Conservation

Water resources

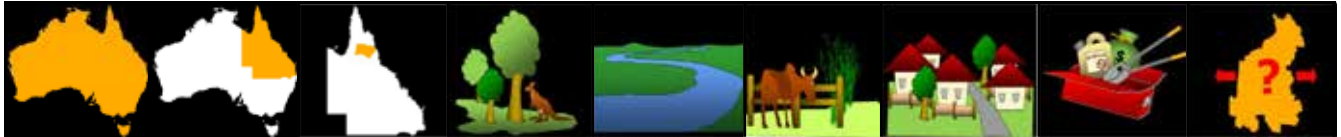
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



5.0/5

2.5/5

5/.05

4.2/5

2.8/5

2.2/5

2.8/5

2.9/5

5.0/5

Details

Description: Small tree (up to 15 m) with large leaves up to 70 cm long. The underside of the leaves is a distinct, deep iridescent purple. Produces clusters of small white flowers followed by red/purple berries.

Distribution: Current incursions occur in vicinity of domestic gardens in the Johnstone, Liverpool, Maria, Mission Beach and Banyan catchments. Readily spreads into neighbouring rainforest.

Impacts: *Miconia* produces hundreds of small berries every year which are attractive to birds and can be spread long distances. It forms dense thickets in rainforest understoreys, potentially replacing native plants and affecting wildlife populations

Key projects: Target of the National cost-shared Tropical Weeds Eradication Program led by Biosecurity Queensland. All plants should be reported to Biosecurity Queensland immediately on 13 25 23.

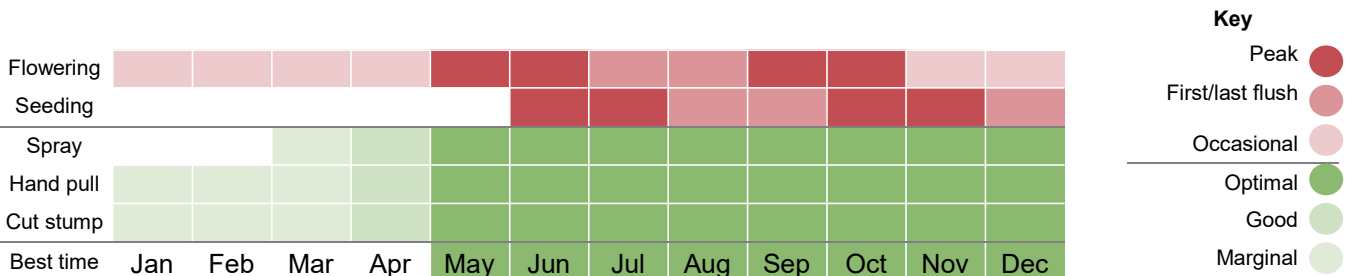
Background

All *Miconia* in the Cassowary Coast area have been introduced by gardeners and subsequently spread by birds. A community education and awareness program is an important part of the eradication program. Managing risk of spread to new areas through hygiene protocols for impacted nurseries and growers play an important role in prevention. Hygiene protocols are also in place for survey and control operations.

A National eradication program is underway on all known infestations. Bi-annual surveys are conducted to monitor all known infestations and to ensure no new outbreaks have gone undetected. Birds can disperse the small seeds out to many hundreds of metres .

Miconia calvescens is an eradication target of the National Tropical Weeds Eradication Program, all plants should be reported to Biosecurity Queensland immediately on 13 25 23.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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Miconia (*Miconia calvescens*)



Woody

Terrestrial

Perennial

Biosecurity Act Restricted matter category

2 Must be reported

3 Do not distribute

4 Do not move

5 Do not keep

6 Do not feed

Control



Spread



What is my biosecurity obligation?

In the prevention zone

Currently the target of the National cost-shared Tropical Weeds Eradication Program. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

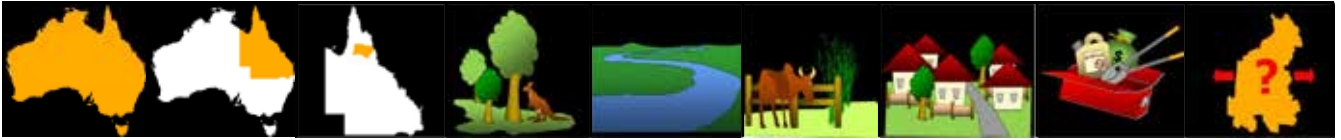
In the eradication zone

If you have an active infestation on your property you can assist the survey and control team by ensuring you do not move soil or plant material from the infestation area and maintaining property access points and tracks.

Pond apple (*Annona glabra*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent

Priority



5.0/5 4.0/5 5.0/5 4.6/5 4.6/5 2.9/5 2.8/5 2.5/5 2.0/5

Details

Description: Tall semi-deciduous shrub or tree reaching around 15m but typically 3-6 m. Leaves are lighter below than above and have a green apple scent when crushed. The Large fruit is similar to a custard apple and are filled with floating seeds similar in size and shape to a pumpkin seed.

Distribution: Spreads on waterways and ocean currents. Widespread at elevations below 20m from the Murray River to Eubenangee. The fruits is eaten by pigs and cassowary which may results also in spread between watersheds.

Impacts: Invades a wide range of wetlands and waterways. Forms dense thickets that exclude most native ground and shrub layer plants and prevents regeneration of trees and chokes drains.

Key projects: Long term projects are underway working from upper to lower catchments in the Eubenangee, Liverpool, and Mission Beach/Bingil Bay areas.

Background

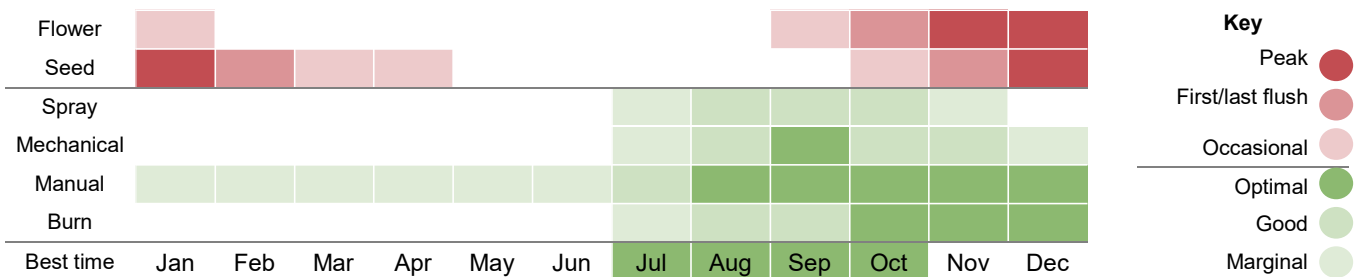
Pond apple is most likely to occur in wetlands and along stream margins but it may occur along beaches as well.

Community awareness programs highlighting the damaging impacts to agricultural land and water ways. Identify and promote maintenance of clean catchments areas. Ongoing projects in the Bingil Bay, Liverpool Creek and Mission Beach area and follow up of sites in the northern end of the Johnstone catchment

Limited resources are available to expand current scope of control programs at present. The programs at Bingil Bay and Victory creek will continue where possible.

Targeted maintenance of key fish passage and flood mitigation/infrastructure areas.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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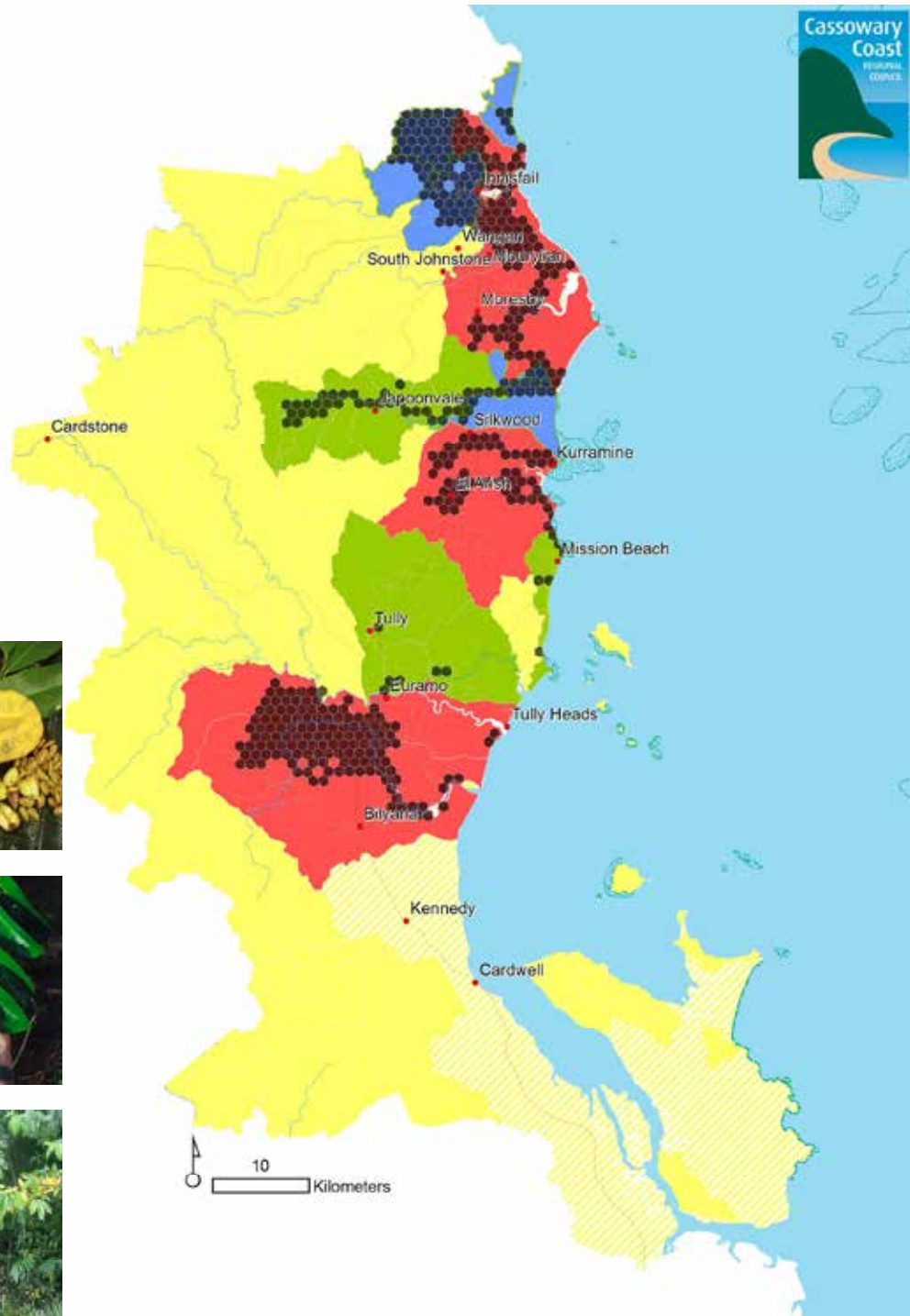


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Pond apple (*Annona glabra*)



What is my biosecurity obligation?

In the delimitation zone	Report any suspected outbreaks or detections to Cassowary Coast Regional Council on 1300 763 903.
In the prevention zone	Report any suspected outbreaks or detections to Cassowary Coast Regional Council on 1300 763 903.
In the eradication zone	If you have an active infestation on your property you can assist the survey and control team by maintaining property access points.
In the intensive control zone	Control plants in creeks and drains. Assist management programs by improving access to infestations and coordinating control works with these programs.
In the asset protection zone	Reduce densities of plants in known sites. Prevent spread and establishment in new sites.

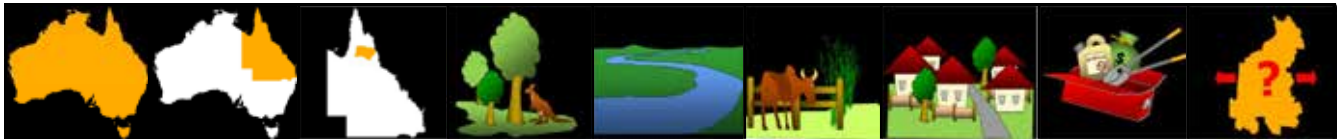
- Woody
- Terrestrial
- Perennial
- Biosecurity Act Restricted matter category
- 2**
Must be reported
- 3**
Do not distribute
- 4**
Do not move
- 5**
Do not keep
- 6**
Do not feed
- Control
- 
- 
- 

- Spread
- 
- 
- 

Siam weed (*Chromolaena odorata*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent

Priority



0.0/5 2.5/5 5.0/5 4.6/5 3.6/5 4.2/5 2.7/5 3.1/5 2.0/5

Details

Description: A scrambling woody shrub to 3 metres (higher as a scrambling climber) with distinctive forked veins in the leaf and a purple flush on new leaves. Clusters of white flowers in May-June and October.

Distribution: Widespread in the Tully and Johnstone catchments. Uncommon in the Murray and Kennedy regions.

Impacts: This species can form dense thickets and outcompete native species and pasture in both disturbed and undisturbed sites. Prefers richer soils in alluvial and riparian zones but will grow in most areas of the wet and dry tropics.

Key projects: Council undertakes annual roadside control of Siam weed to help protect residents, neighbouring council areas, and those further afield, from Siam weed.

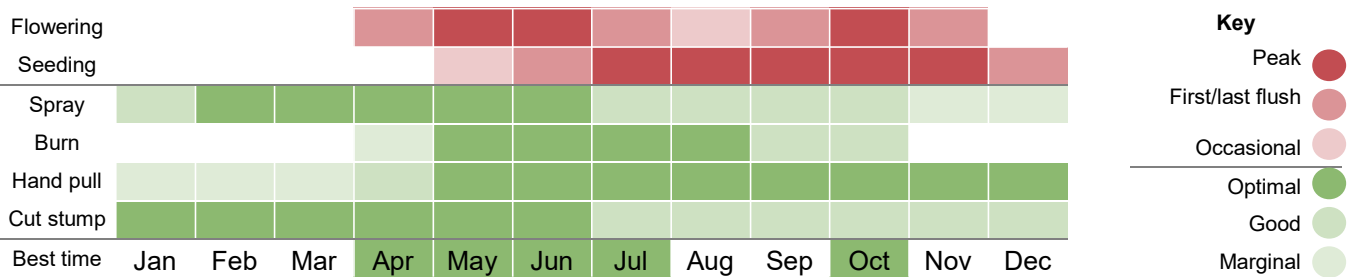
Background

Siam weed is likely to arrive with contaminated stock, produce, vehicles or machinery from adjoining infested areas. Ensure weed hygiene measures are in place and materials/produce are sourced from a clean sites and monitor roads and tracks for new incursions. Siam weed has a peak flowering period in May-June with another, less vigorous flowering in October. It is most visible at these times and this feature is used to detect plants to enable control prior to seeding. Siam weed is able to be spread by wind and water as well as by machinery and vehicles.

Siam seed is confirmed to remain viable in the soil for at least 7 years so a long-term management plan is essential and will assist to reduce the effort required over time. Maintaining records of historical infestations and restricting disturbance and movement of soil is essential to prevent spread.

The Johnstone, Liverpool and Tully basins are some of the core infestation areas for Siam weed in Australia. The others being in the Upper Herbert and Townsville areas. Dense infestations and a broad range of impacts to key assets are possible if no management action is taken to control outbreaks and prevent spread to new areas.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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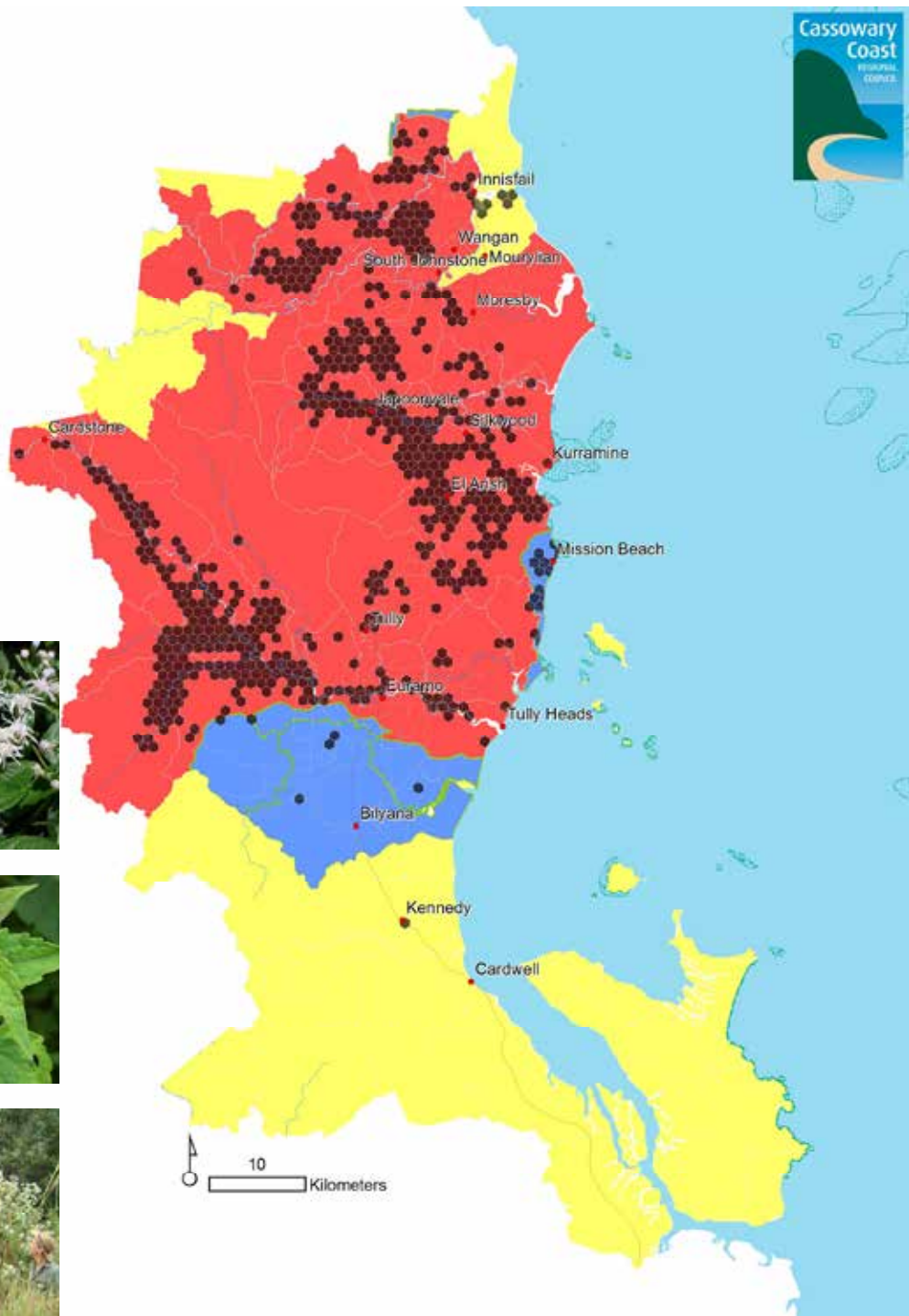


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Siam weed (*Chromolaena odorata*)



Woody

Terrestrial

Perennial

Biosecurity Act Restricted matter category

2 Must be reported

3 Do not distribute

4 Do not move

5 Do not keep

6 Do not feed

Control



Spread



What is my biosecurity obligation?

- In the prevention zone**
- In the intensive control zone**
- In the asset protection zone**

Ensure agricultural and raw materials are sourced from a reliable supplier from and are from a weed free area. Maintain a lookout during the peak flowering period in May-June. Report any detections to Cassowary Coast Regional Council on 1300 763 903.

Do not disturb or remove soil and plant material from a known infestation location, even if no plants are visible. Undertake control works in known known infestations in April. Follow up control works during May-June to ensure any missed plants are controlled before the can produce seed.

Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Undertake control works annually along roads, tracks, boundaries and waterways to prevent spread from your property.

Mikania vine (*Mikania micrantha*)

National priority

State priority

Previous local

Conservation

Water resources

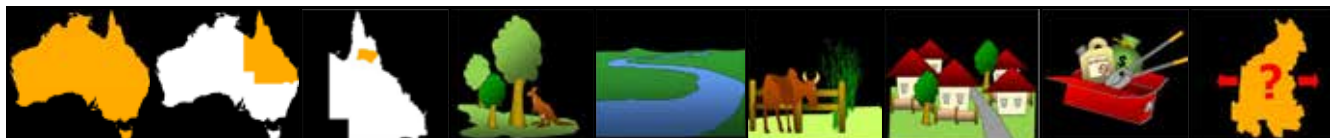
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



Details

Description: A scrambling and twining herbaceous climber. Known as 'mile-a-minute' because of its rapid growth rate. Distinctive opposite leaves in pairs. White masses of flowers.

Distribution: Isolated infestations occur in the Mission Beach area.

Impacts: Mikania vine is a rapid-growing vine which is a major environmental weed and a pest in plantation crops in tropical areas around the Asia-Pacific. It poses a significant threat to banana and sugar plantations as well as native forests and the Wet Tropics World Heritage Area.

Key projects: All known infestations are currently under an eradication program within the Cassowary Coast as part of the National cost-shared Tropical Weeds Eradication Program. All suspected plants should be reported to Biosecurity Queensland immediately on 13 25 23.

Background

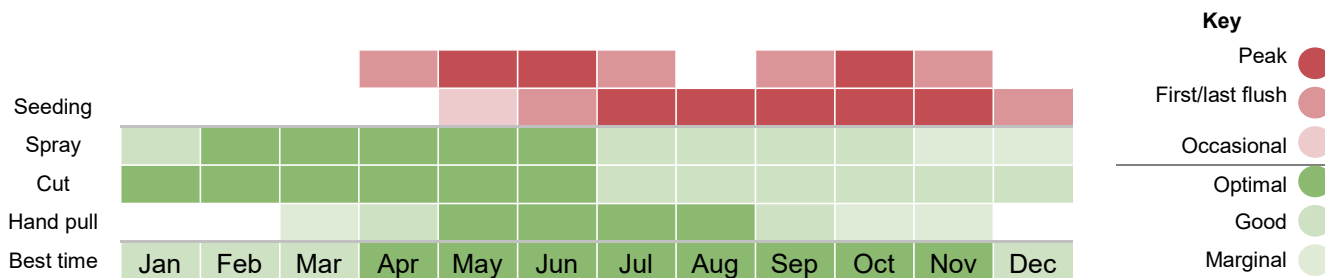
Mikania vine is subject to a national eradication program and the control work is conducted by a specialist team. It was first detected in the Cassowary Coast area in 1998. All known occurrences are surveyed at least four times a year to ensure all new infestations or plants are detected. The seed for Mikania vine can live for at least 7 years in the soil.

Keep an eye out for smothering vines with white flowers in the peak flowering times of May-June and September-October. Ensure that your industry, community or family are aware of the risks of weed spread, particularly after floods or cyclones.

Ensure appropriate weed hygiene protocols are in place for any activities which might disturb soil or spread seed in areas adjoining the eradication zone. Be particularly careful of weed spread risk when operating near creeks or wetlands.

Any soil disturbance, from earthworks to flood events, could trigger germination of new plants. The Biosecurity Act 2014 requires that any detection of this plant must be reported immediately to Biosecurity Queensland on 13 25 23.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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Mikania vine (*Mikania micrantha*)



What is my biosecurity obligation?

In the prevention zone

The Biosecurity Act 2014 requires that any detection of this plant must be reported immediately, call Biosecurity Queensland on 13 25 23.

In the eradication zone

Seek advice prior to any works in vicinity of known locations. Do not move or accept plant material or soil unless you are sure it is from a clean source. Ensure any machinery or vehicles moving from the eradication zone are free from plant material and soil. If you have an active infestation on your property you can assist the survey and control team by maintaining property access points and tracks, and ensuring you do not move soil or plant material from the infestation area.

Vine

Terrestrial

Perennial

Biosecurity Act
Restricted matter

2
Must be

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



Spread



Kudzu (*Pearia lobata*)

National priority

State priority

Previous local

Conservation

Water resources

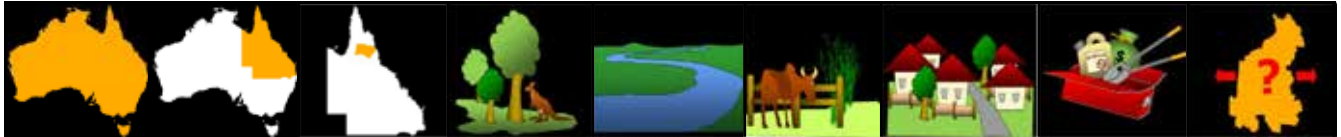
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



0.0/5

1.5/5

5.0/5

4.2/5

4.5/5

2.2/5

3.0/5

2.8/5

4.0/5

Details

Description: A perennial scrambling vine with alternate leaves. The large leaves are a lobed shape and form in groups of three (like a dinosaur footprint). It produces purple pea like flowers and spreads rapidly when nodes come in contact with soil .

Distribution: All currently known infestations occur in the Johnstone River catchment.

Impacts: A fast growing vine which has the potential to encroach into thick rainforest and riparian zones smothering native vegetation. Poses a significant threat to agriculture and infrastructure. Can grow to over 30 metres in height smothering vegetation and infrastructure. Seed pods can be spread by sticking to clothing and the fur of animals.

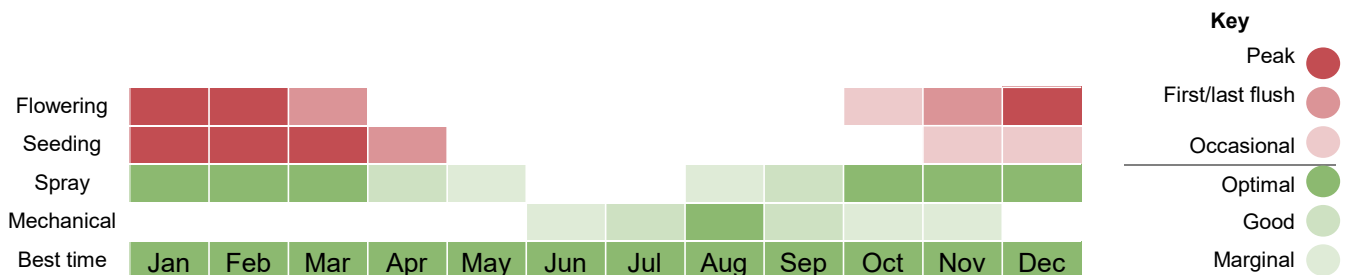
Key projects: Long term projects continue along the Johnstone river with known sites currently being managed and monitored.

Background

Kudzu is often introduced as a medicinal plant so it is likely to be associated with gardens and horticulture. It can grow prolifically and spread along watercourses and into reserves growing best in disturbed and edge vegetation. The distinctive lobed leaves and deep purple flowers help distinguish it from other common vines of gardens and forest edges.

All known sites are to be surveyed mapped and scheduled for treatment. Any works conducted in vicinity of known active sites should seek advice on hygiene measures required to reduce the risk of spread to new locations.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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Kudzu (Peuria lobata)



What is my biosecurity obligation?

In the prevention zone

Report any suspected outbreaks or detections to Contact Cassowary Coast Regional Council on 1300 763 903. Ensure any machinery or vehicles moving from infested areas are free from plant material and soil.

In the intensive control zone

Landholders with infestations will be supported by council to control this infestations of Kudzu. Advice on best practice best control methods is available from Cassowary Coast Regional Council on 1300 763 903.

Vine

Terrestrial

Perennial

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control

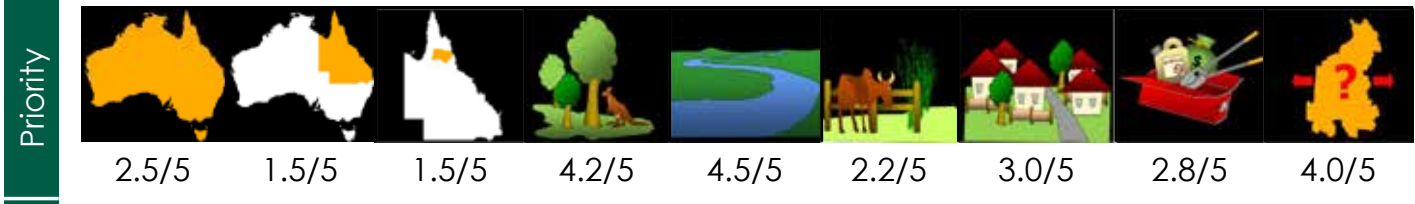


Spread



Water hyacinth (*Eichhornia crassipes*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent



Details

Description: A free floating aquatic herb with glossy, spoon shaped leaves and distinctive purple/lilac flowers. Water hyacinth forms dense blankets over waterways and wetlands. A similar native species occurs but can be distinguished by its yellow flowers and spear-shaped leaves

Distribution: Isolated to two occurrences in the Tully-Murray catchments and potentially in private ponds/water features. Water hyacinth is widespread in the Lower Herbert and Russell River catchments which may provide a means of re-introduction from outside the Cassowary Coast region.

Impacts: It floats on still or slow-moving water and can grow rapidly to cover the entire water surface with a thick mat of vegetation. This shades out any submerged plant life and impedes oxygen exchange, making the water unsuitable for fish, other animals and limit access for recreation.

Key projects: Three isolated outbreaks targeted for eradication from the Cassowary Coast Region.

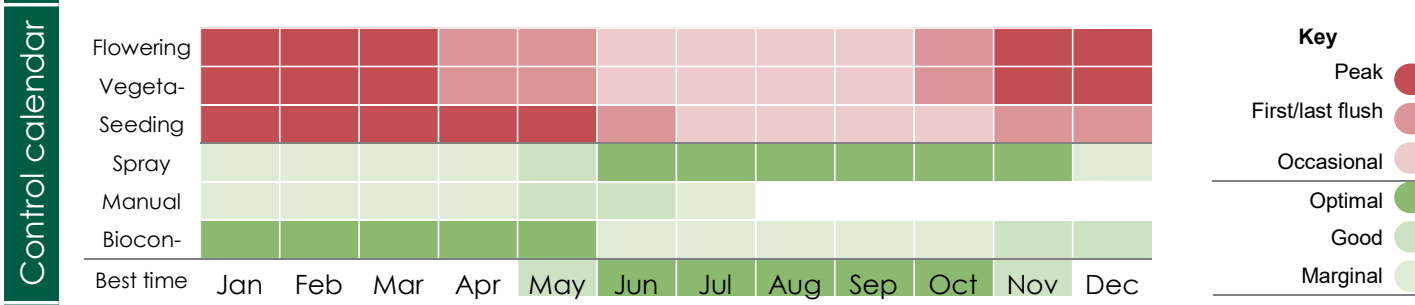
Background

Water hyacinth is most likely to be introduced in ponds, water features or as an aquarium plant. Ensure water features and ornamental gardens do not contain water hyacinth. Water hyacinth grows from seed and by division of mature plants and may be spread in contaminated soil from water features containing the weed in other areas.

An eradication program is underway on the known infestations in the Cassowary Coast region. Bi-annual surveys are conducted to monitor and control all known infestations and to ensure no new outbreaks have gone undetected.

Water Hyacinth is a restricted plant under the Biosecurity Act 2014. It must not be distributed, given away or sold

Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.

Water hyacinth (*Eichhornia crassipes*)



What is my biosecurity obligation?

In the prevention zone

Ensure wetland and pond plants are sourced from a reliable supplier from and are from a weed free area. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants. Do not share water plants or dump into waterways as this is the most likely means of introduction.

In the eradication zone

Ensure soil or vegetation from known infestations is not moved from the site or is disposed of correctly. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Aquatic

Perennial

Floating

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



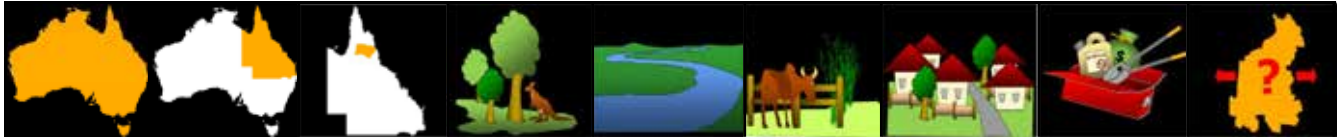
Spread



Water lettuce (*Pistia stratiotes*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent

Priority



0.0/5 1.5/5 5.0/5 4.3/5 4.2/5 2.4/5 2.7/5 2.9/5 4.0/5

Details

Description: A free floating aquatic weed which resembles an open head of lettuce. Leaves are spongy, light green and water repellent. Small green flowers. Water lettuce Reproduces from seeds or division.

Distribution: Isolated to water features and artificial water ways particularly in Mena Creek area and has been detected in water features in Mission Beach area. Prefers slow moving water bodies with high nutrients.

Impacts: Water lettuce floats on still or slow-moving water and can grow rapidly to cover the entire water surface with a thick mat of vegetation. This shades out any submerged plant life and impedes oxygen exchange impacting fish and aquatic organisms. Provides breeding opportunities for mosquitoes

Key projects: Systematic top down management in infested catchments will be required to reduce the impacts of water lettuce.

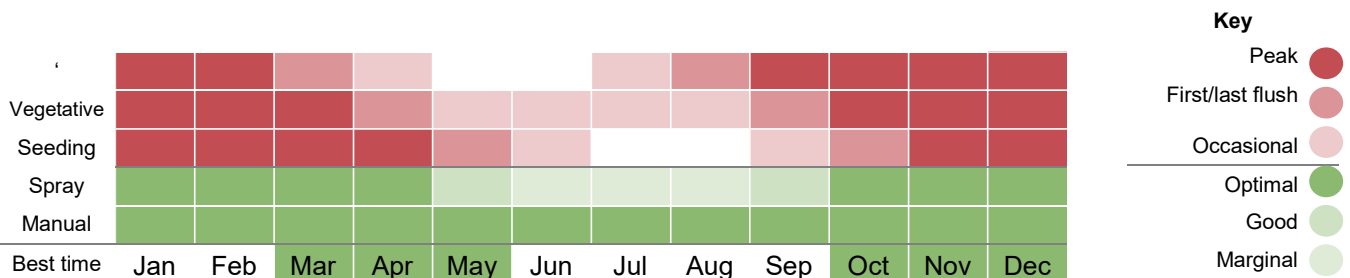
Background

Water lettuce is most likely to be introduced via aquariums or water features. The plant could potentially be introduced as a contaminant in water plants sourced from the greater Cairns area. Ensure that sources of water plants like water lily are weed free and do not contain water lettuce or other water weeds.

Do not empty aquariums into man made or natural waterways. Water lettuce reproduces by seed and by division from stolons (runners). A top of catchment down approach is being used to systematically remove water lettuce from the water features and artificial waterways where it occurs in Cassowary Coast region.

Water lettuce can spread on flood water so operations will focus on areas at risk following major weather events.

Control calendar



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Water lettuce (*Pistia stratiotes*)



What is my biosecurity obligation?

In the prevention zone

Water lettuce is a restricted plant under the Biosecurity Act 2014. It must not be distributed, given away or sold. Ensure sources of aquatic plants for aquariums and water features are weed free. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

In the intensive control zone

Ensure water features and ornamental gardens do not contain water lettuce. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Floating

Aquatic

Perennial

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



Spread



Olive hymenachne (*Hymenachne amplexicaulis*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent

Priority



0.0/5 1.5/5 5/5 4.3/5 4.2/5 2.4/5 2.7/5 2.9/5 4.0/5

Details

Description: A robust, upright perennial aquatic grass 1-2 metres with distinctive stem clasping leaves. Olive hymenachne produces a long cylindrical seed head

Distribution: A major weed of all river systems and connected wetlands in the lower Tully-Murray and Johnstone catchments.

Impacts: Hymenachne grows rapidly and blocks drainage systems in cane farms. Rapidly invades and outcompetes native plants in wetlands and waterways. Prevents fish passage and breeding opportunity for key species like Barramundi.

Key projects: Targeted eradication projects in outlier infestations. Landholder led impact reduction programs within cane drainage and wetlands.

Background

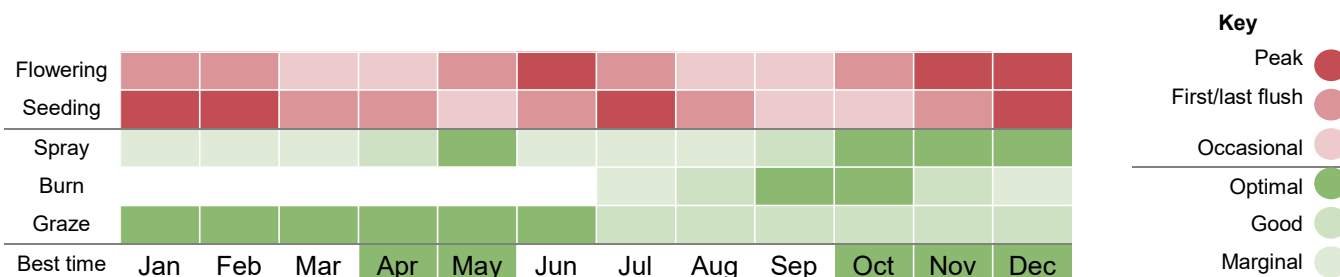
Hygiene requirements for roadside management operators underway. Ongoing communication of identified clean catchments within this plan .

New outbreaks detected within prevention zones to be responded to immediately. Ongoing efforts to remove outlier infestations. Targeted maintenance of key fish passage areas, cane drains and farm infrastructure. Landholders can assist by maintaining key flow areas, re-instating stream –side vegetation and reducing nutrients and sediment into wetlands.

Improving water quality and the condition of riparian vegetation will assist in making waterways more resilient to weed impacts into the future. Infestations are currently controlled with herbicide and follow-up surveys to ensure all plant fragments have been treated. On-going treatment efforts are required to continue the reduction of infested sites across the catchments.

Monitoring of treated areas after control effort is essential to ensure infestations do not re-establish. Minimize the risk of spread with best practice weed hygiene. Systematic treatments from the top down of each catchment. Treat new incursions as reported. Treat existing outlying areas to prevent spread.

Control calendar



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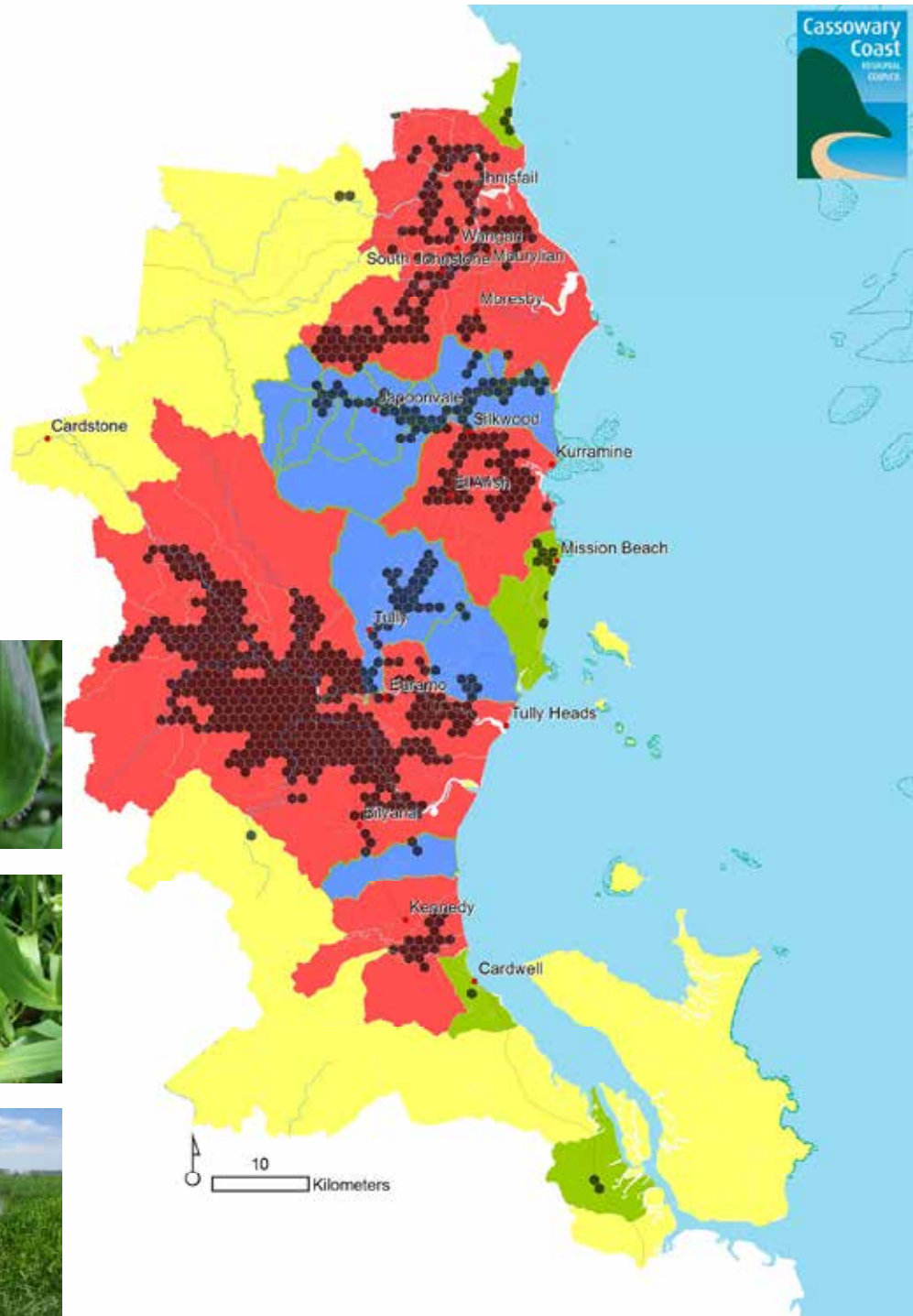


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Olive hymenachne (*Hymenachne amplexicaula*)



Grass

Aquatic

Perennial

Biosecurity Act
Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



What is my biosecurity obligation?

In the prevention zone	Ensure any machinery or vehicles moving from the infested areas are free from plant material and soil. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants
In the eradication zone	Ensure any machinery or vehicles moving from the infested areas are free from plant material and soil. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants
In the intensive control zone	Manage infestations systematically from top of catchment down. Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas.
In the asset protection zone	Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Identify high value assets and protect them from impacts where possible.

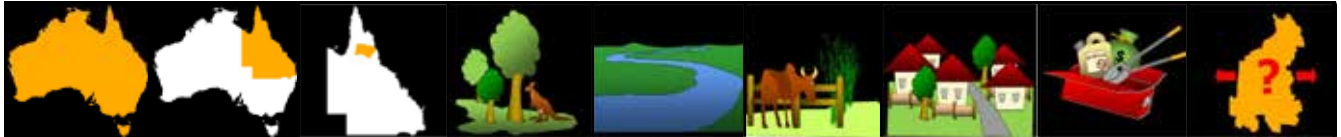
Spread



Glush weed (*Hygrophila costata*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent

Priority



0.0/5 1.5/5 5.0/5 4.2/5 4.5/5 2.2/5 3.0/5 2.8/5 4.0/5

Details

Description: An erect, emergent aquatic herb up to 1m tall. Generally growing in thick mat on banks and waters edge but extending over the water. Small papery white flowers at the junction of the stem and leaf.

Distribution: Restricted to the lower Liverpool Creek. Also present in the Russell River to the north of Cassowary Coast region. Introduced as an aquarium plant

Impacts: Smothers riparian vegetation and blocks waterways. May provide habitat for pest fish species like Tilapia. Glush weed forms dense mats which may restrict recreational activities.

Key projects: The target of eradication from Liverpool Creek and associated catchements.

Background

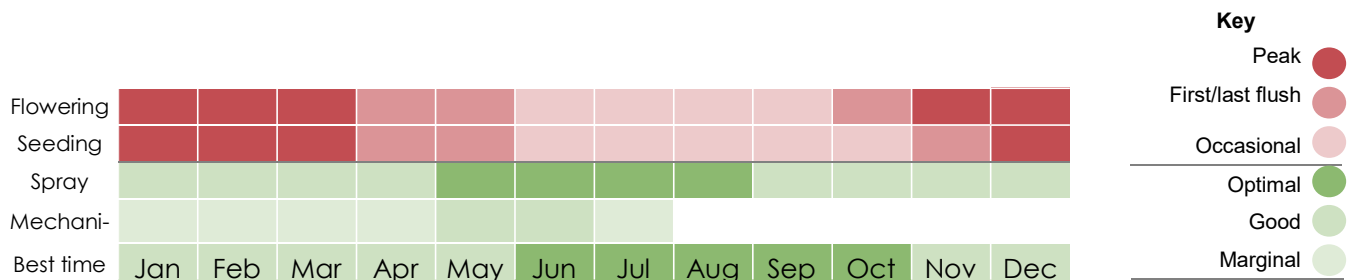
Any operations in roadside or drainage areas adjoining the eradication zone should remain observant and on the look out for glush weed. Any works which disturb soil in the management area should be done in consultation with Cassowary Coast Regional Council to ensure prevention of spread.

Promoting the protection of the glush weed free catchments identified in this action plan will play an important role in keeping glush weed out of the region into the future.

The infestation site and adjoining drains and creeks are the subject of an eradication program.

Any suspected sightings should be reported to Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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Glush weed (*Hygrophila costata*)



Herb

Aquatic

Perennial

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



What is my biosecurity obligation?

In the prevention zone

Ensure wetland and pond plants are sourced from a reliable supplier from and are from a weed free area. Do not dump aquarium plants or fish into waterways. Clean down watercraft when moving between waterways

In the eradication zone

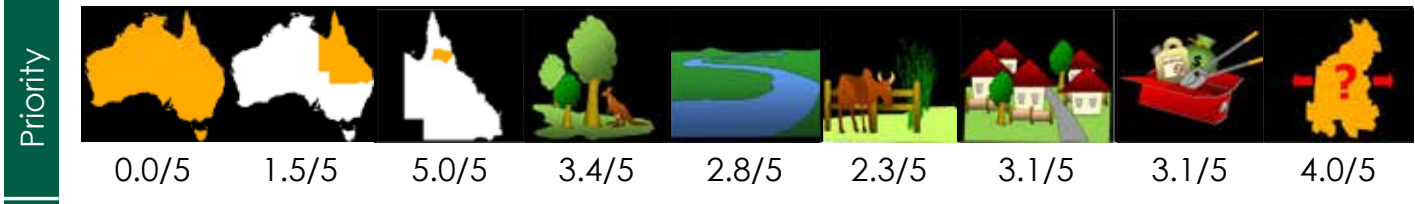
Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Spread



Thunbergia vine (*Thunbergia grandiflora*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent



Description: A rapidly growing vine which forms significant underground tubers. Thunbergia climbs and smothers native vegetation. The separate species of *T. laurifolia* and *T. grandiflora* have been merged into a single species. The lavender-blue trumpet shaped flowers are identical but the leaves may vary leaves from a choko-like shape to an oval shape with a narrow pointed tip. Both form large underground tubers.

Distribution: Several isolated outbreaks within the Cassowary Coast region

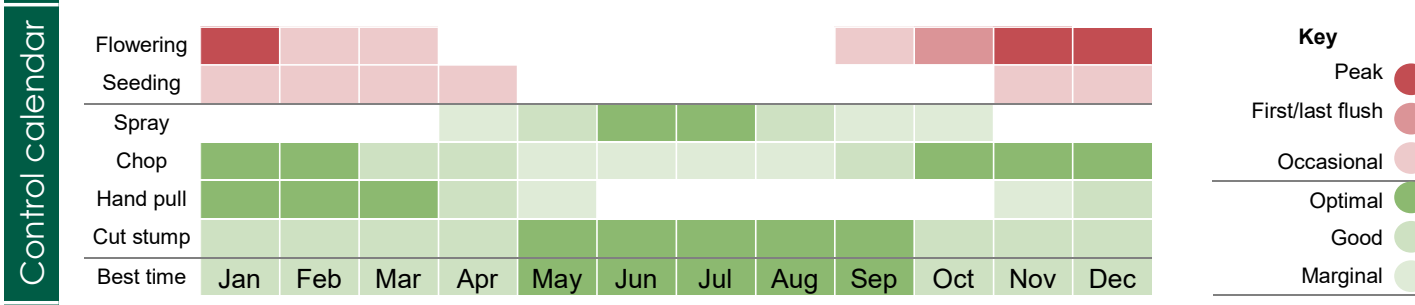
Impacts: Thunbergia vine climbs and smothers native vegetation, killing and often pulling down mature trees with the weight of the vine.

Key projects: All known infestations are under active programs toward eradication.

The main method of spread for Thunbergia vine is through the sharing plants between gardeners. It is an offence under the Biosecurity Act to move, share, give away or sell this plant.

Because it often grows on the banks of creeks and rivers Thunbergia may be spread during floods and cyclones, or during clean up work afterwards. You can reduce the risk of spread by reporting any suspect vines with purple or mauve flowers to council and by making sure machinery used is clean before arriving to do any work. A council led control program is underway on many of the known infestations in public spaces .

Landholders can assist the program treating infestations on their own properties; and by maintaining easy access to treatment areas or by assisting council staff during control activities. If your property has an active infestation make sure your green waste does not contain live plant material and is not disposed of in areas where the plant might establish like creeks and bushland.



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.

Thunbergia vine (*Thunbergia grandiflora*)



Vine

Terrestrial

Perennial

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



Spread



What is my biosecurity obligation?

In the prevention zone

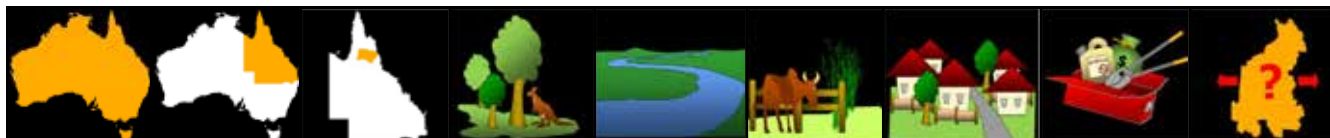
Ensure any machinery or vehicles moving from the management areas are free from plant material and soil. Seek advice prior to works in vicinity of known locations. Do not move or accept plant material or soil unless you are sure it is from a clean source.

In the intensive control zone

Control any infestations and destroy plant material on your property. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants or for advice on control methods.

Mexican bean tree (*Cecropia* spp.)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent



Priority

Details

Description: Rapidly growing tree to 20m. Hollow stems, large deeply lobed leaves with flocked white undersides. Distinctive leaf scars on trunk. The female plant produces long finger-like spikes.

Distribution: Restricted to isolated outbreaks or single plants in the El Arish, Maria Creek and Mission Beach areas.

Impacts: A rapid growing rainforest pioneer which can invade and dominate rainforests and urban gardens. *Cecropia* is spread by birds and bats and so can be moved long distances into adjoining landscapes and forests.

Key projects: All known locations the target of a regional eradication program led by Biosecurity Queensland. All suspected sightings of this plant should be reported to Biosecurity Queensland on 13 25 23.

Background

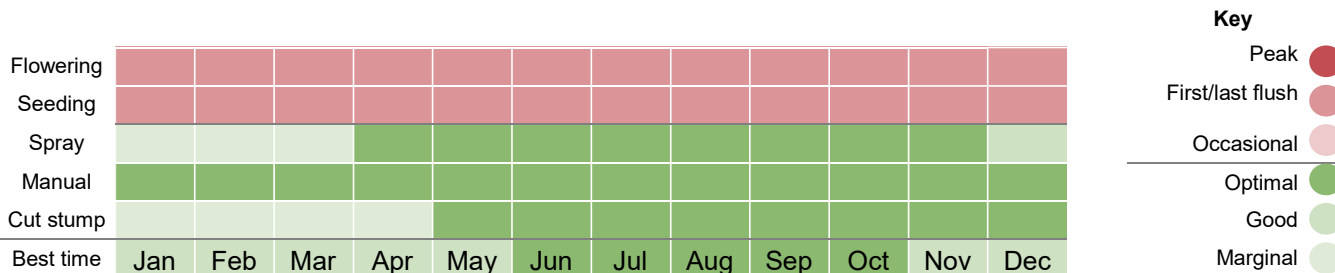
A community education and awareness program is an important part of the eradication program. Managing risk of spread to new areas through hygiene protocols for impacted nurseries and growers play an important role in prevention. Hygiene protocols are also in place for survey and control operations.

Cecropia was most likely to be introduced as a garden specimen or experimental food plant over the past 2 decades. Keep an eye out in areas where plant collections or gardens have been or are situated as well as rainforest areas and disturbed sites. Distinguish from native umbrella tree which has glossy leaves and long spikes of red flowers.

All known locations the target of a regional eradication program led by Biosecurity Queensland.

All suspected sightings of this plant must be reported to Biosecurity Queensland on 13 25 23.

Control calendar



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Mexican bean tree (*Cecropia* spp.)



What is my biosecurity obligation?

In the prevention zone

All suspected sightings of this plant must be reported to Biosecurity Queensland on 13 25 23 within 24 hours of sighting.

In the eradication zone

All suspected sightings of this plant must be reported to Biosecurity Queensland on 13 25 23 within 24 hours of sighting.

It must not be given away, sold or released into the environment.

Woody

Terrestrial

Perennial

Biosecurity Act Restricted matter category

2 Must be reported

3 Do not distribute

4 Do not move

5 Do not keep

6 Do not feed

Control

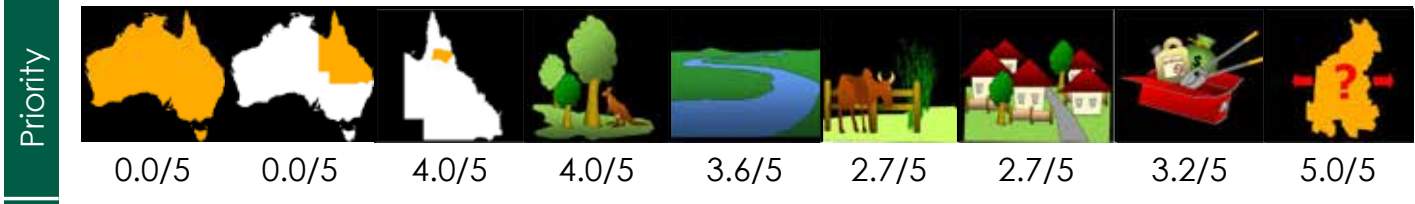


Spread



Aleman grass (*Echinochloa polystachya*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent



Details

Description: A robust, upright perennial aquatic grass to 1-2 metres with distinctive silver blue sheen. Grows in shallow wetlands and deep water and forms spreading rafts of floating stems. Spread by vegetative reproduction

Distribution: Currently restricted to the Tully-Murray and Japoonvale areas.

Impacts: Blocks drainage systems in cane farms and waterways. Grows in deeper water than Olive hymenachne. Readily invades and outcompetes native plants in wetlands and waterways. Prevents fish passage and breeding opportunities.

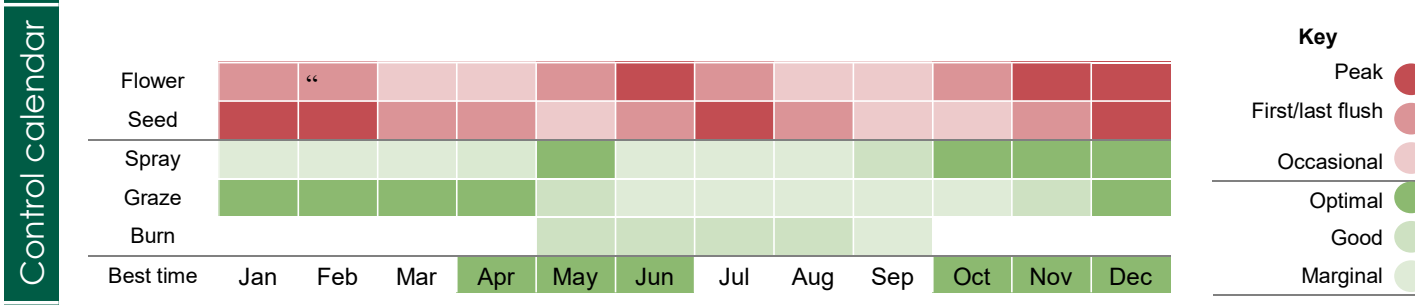
Key projects: Several known outbreaks are under intensive control. Delimitation is required to determine distribution beyond known sites.

Background

Survey is required in many catchments to ensure all locations are identified and that infestations are under appropriate management. Aleman grass was promoted as ponded pasture so is most likely to be associated with grazing properties where it may have been introduced.

Known infestations are the target of an intensive control program. Work is still underway to determine the most effective control methods as it is often not completely susceptible to currently available herbicides and wetters.

There is no strong agreement on whether plants produce viable seed. During its promotion it was spread by live runner's.



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.

Aleman grass (*Echinochloa polystachya*)



Grass

Aquatic

Perennial

Local laws apply

Must not breed

Must not propagate

Must not introduce

Must not sell or supply

Must not provide harbour

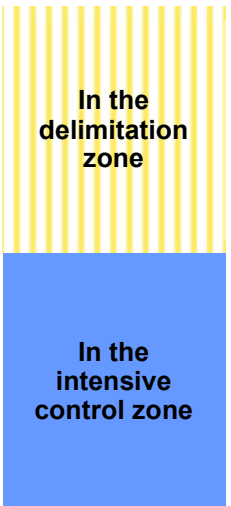
Control



Spread



What is my biosecurity obligation?



In the delimitation zone
Ensure any machinery or vehicles moving from the infested areas are free from plant material and soil. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants

In the intensive control zone
Manage infestations systematically from top of catchment down. Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas

Brillantaisia (*Brillantaisia lamium*)

National priority

State priority

Previous local

Conservation

Water resources

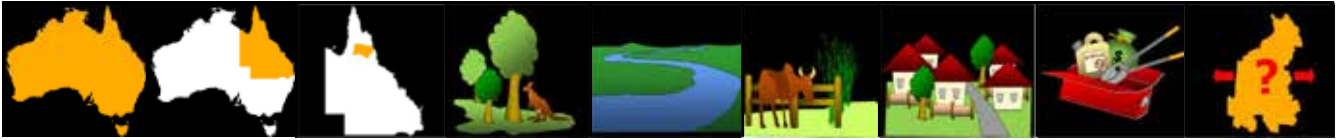
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



0.0/5

0.0/5

5.0/5

3.7/5

3.7/5

2.9/5

2.7/5

2.9/5

4.0/5

Details

Description: A small shrubby herb up to to 2m in height. Hairy square stems with heart shaped leaves. Purple (sometimes white) pea-like flowers are held on thin stems prior to forming cigar shaped seeds pods.

Distribution: Localised infestations in the Liverpool and Maria catchments. Isolated outbreaks in Feluga, Silkwood, Mission Beach, Carmoo and Moresby.

Impacts: Outcompetes native plants in riparian zones. Takes over domestic gardens and roadsides. Spreads easily on machinery, vehicles and waterways. Grows well in full shade and full sun.

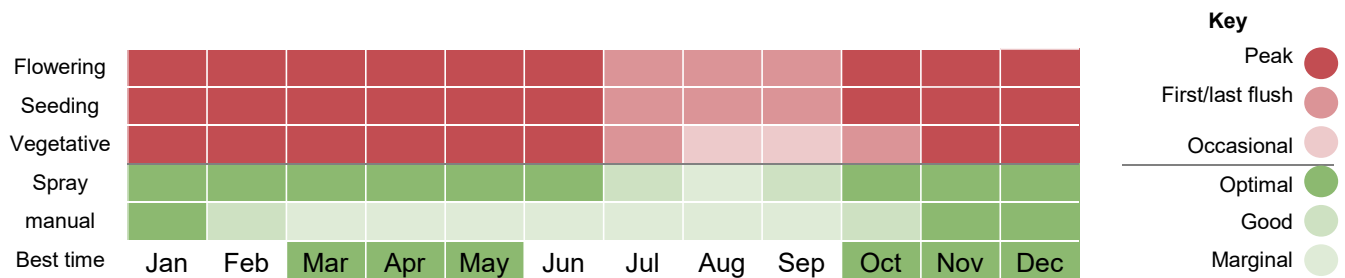
Key projects: Outlier infestations are under eradication.

Background

Brillantaisia spreads readily on machinery and within contaminated soils. It was introduced into the Wet Tropics via a nursery in the Mossman area from where it has been spread in garden plants. Because the plant has rapid growth and seed production it can quickly establish and become infestations which are difficult to manage and which impact on riparian zones, pastures and roadsides.

Isolated outbreaks are treated every six weeks to prevent plants from seeding. Survey in and around the known infestations are conducted to ensure all locations are detected. Targeted maintenance of key assets in the Liverpool Creek catchment are conducted to reduce the infestation size.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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Brillantaisia (*Brillantaisia lamium*)

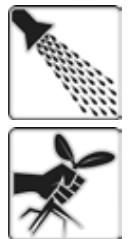


- Herb
- Terrestrial
- Perennial

Local laws apply

- Must not breed
- Must not propagate
- Must not introduce
- Must not sell or supply
- Must not provide harbour

Control



What is my biosecurity obligation?

- In the prevention zone**
- In the eradication zone**
- In the intensive control zone**

Ensure sources of garden plants are weed free. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Treat infestations before they set seed. Ensure sources of garden plants are weed free. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Do not move soils and plants from infested sites. Maintaining healthy pastures and keeping an eye out for the distinctive purple flowers will assist in the timely detection and treatment of new infestations.

Spread



Cabomba (*Cabomba caroliniana*)

National priority

State priority

Previous local

Conservation

Water resources

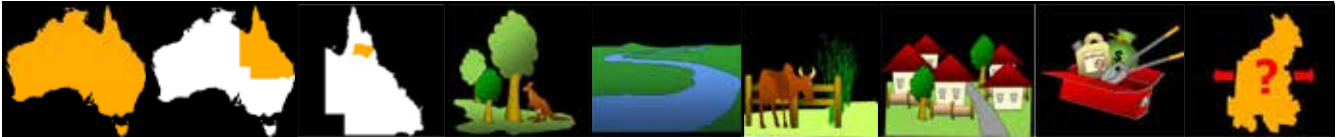
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



2.5/5

1.5/5

3.0/5

3.7/5

4.4/5

3.1/5

5.0/5

2.9/5

1.0/5

Details

Description: Cabomba is an anchored, submerged aquatic plant. Leaves are distinctly fan shaped which collapse when removed from water. Small white flowers emerge from water surface on short stalks. Similar to several native species though generally grows in much denser stands. Can be easily confused with some native species but generally much more competitive.

Distribution: Current known distribution in slow flowing sections of Whing , Stagnant, Maria and Liverpool Creek.

Impacts: Cabomba chokes waterways, irrigation infrastructure and impoundments. Once established it can be very difficult to remove. Can survive severe desiccation and reshoot

Key projects: Trial control of known incursions and promote wider awareness to detect any unrecorded occurrences

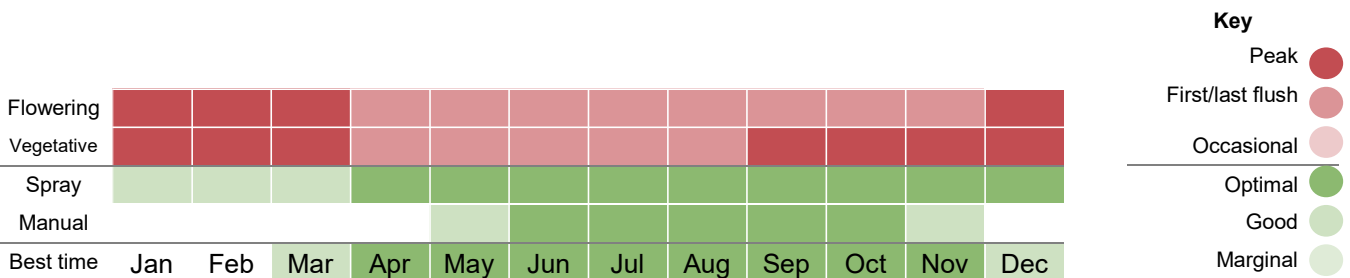
Background

Cabomba can be transported on boats and watercraft from infested waterways. It can rehydrate and shoot from stem sections even when it appears fully dehydrated so caution is required to make sure boats and machinery do not contribute to spread from known locations. Introductions are often linked to aquarium and release of aquarium fish into waterways.

Cabomba is often detected when small , white flowers break the surface of the water. This is an easy way to distinguish from native water weeds like Hornwort.

There a range of control tools for the management of Cabomba although due to the difficulty of managing submerged weeds an integrated approach is most effective. The *Cabomba control manual* developed by Weeds of National Significance is the most useful resource to guide how to design a control program. More tools including biocontrol and more effective herbicide options are currently in development.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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Cabomba (*Cabomba caroliniana*)



Submerged

Aquatic

Perennial

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



What is my biosecurity obligation?

In the prevention zone

Ensure wetland and pond plants are sourced from a reliable supplier from and are from a weed free area. Do not dump aquarium plants or fish into waterways. Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

In the asset protection zone

Minimise risk of spread by limiting contact with and works in drains and pondage which contain Cabomba. Control plants during dry season when water is not flowing and access is easier. Do not move contaminated aquarium plants, soils or machinery. Clean down watercraft when moving between waterways.

Spread



Limnocharis (*Limnocharis flava*)

National priority

State priority

Previous local

Conservation

Water resources

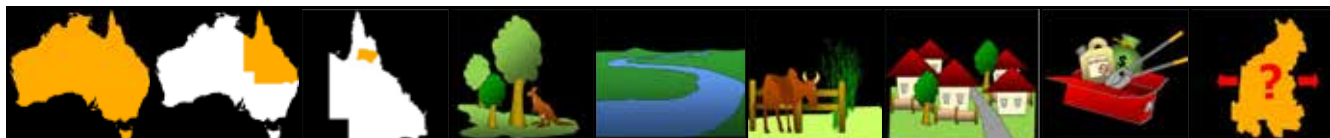
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



5.0/5

2.5/5

5.0/5

4.1/5

4.1/5

2.8/5

2.7/5

3.5/5

5.0/5

Details

Description: Limnocharis is a perennial aquatic weed which can grow to a height of 1 metre. It has pale green leaves and small yellow cup-shaped flowers. Stems of leaves are triangular in cross-section

Distribution: Currently active infestations in Feluga, Vasa Views, Carmoo and Maria Creeks . Other sites in Tully and Mission Beach are in monitoring to eradication.

Impacts: A major weed in many countries. This perennial aquatic plant will colonise shallow wetlands and margins of deeper waterways. It competes with native plants, blocks drains and displaces native flora and fauna.

Key projects: All known infestations within the Cassowary Coast are currently the target of the National cost-shared Four Tropical Weeds Eradication Program. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

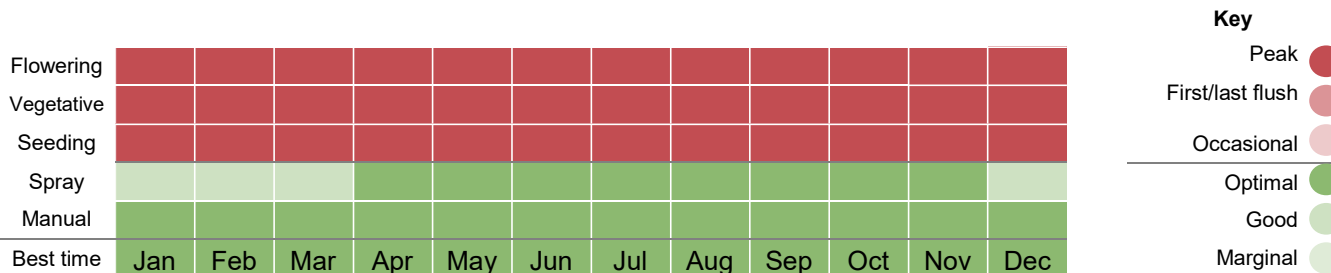
Background

Limnocharis was introduced as an ornamental wetland plant and has escaped from cultivation into drains, creeks and wetlands. Ensuring that aquatic plants are sourced from a weed free source is essential to prevent further spread of invasive aquarium plants. The seed is long-lived and can re-emerge many years after being buried in mud or soil in waterways.

The distinctive yellow flowers help distinguish it from native or introduced water hyacinth which have purple flowers. The leaf stems are also triangular on cross section.

All known sites are surveyed and treated monthly. Any works conducted in vicinity of known active site should seek advice on current distribution and hygiene measures required. The seed can remain viable buried in mud and soil for many years so any works in the vicinity of known sites require strict hygiene protocols, contact the eradication team on 13 25 23 for more information or if unsure of the risk.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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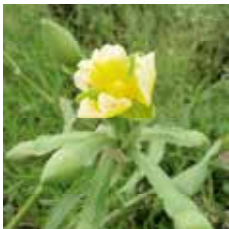
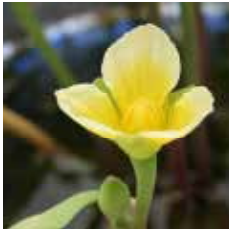


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Limnocharis (*Limnocharis flava*)



Herb

Aquatic

Perennial

Biosecurity Act Restricted matter category

2 Must be reported

3 Do not distribute

4 Do not move

5 Do not keep

6 Do not feed

Control



What is my biosecurity obligation?

In the prevention zone

Ensure wetland and pond plants are sourced from a reliable supplier from and are from a weed free area. Do not dump wetland, aquarium plants or fish into waterways. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

In the eradication zone

Do not move soils and plants from infested sites. Ensure machinery and other plant operating in vicinity of the known infestation is operating under strict weed hygiene protocols developed in consultation with BQ.. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

Spread



Parthenium weed (*Parthenium hysterophorus*)

National priority

State priority

Previous local

Conservation

Water resources

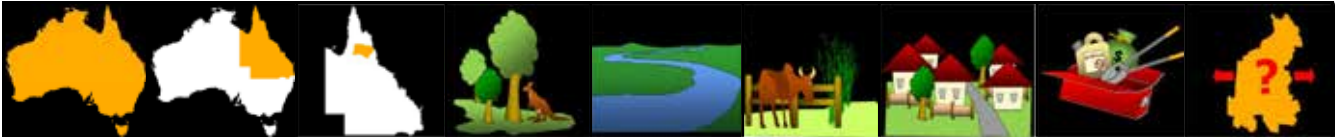
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



2.5/5

1.5/5

4.0/5

1.0/5

2.0/5

1.0/5

1.0/5

3.0/5

5.0/5

Details

Description: Parthenium weed is an annual herb with a deep tap root and an erect stem that becomes woody with age. As it matures, the plant develops many branches in its top half and may eventually reach a height of two metres.

Distribution: Isolated to several small outbreaks in East Palmerston and Cardwell

Impacts: Parthenium is a weed of crops and grasslands causing loss of crop and pasture production. Parthenium weed also causes severe allergic reactions including hay fever and dermatitis in susceptible people

Key projects: All known sites are under an ongoing monitoring program and progressing to eradication .

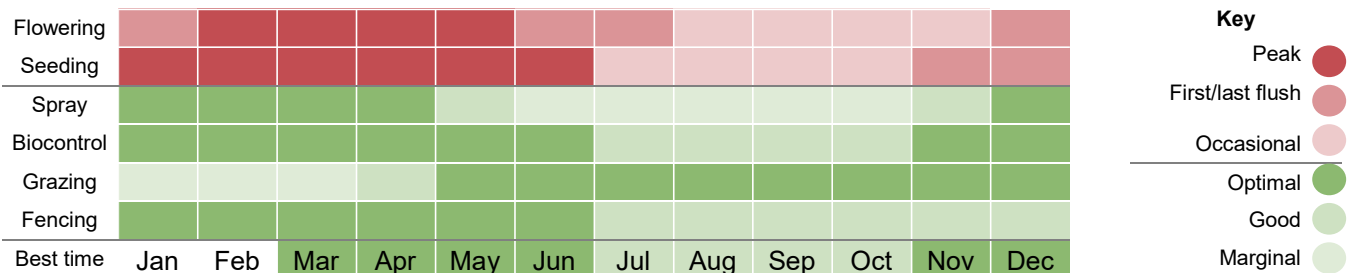
Background

Maintaining hygiene requirements for roadside management operators and wider community in areas where Parthenium weed is present will reduce risk of spread to new locations. Public awareness targeted to areas where Parthenium weed is absent. Ensure stock feeds is from a clean and secure source.

Parthenium weed is often spread as a contaminant in stock and poultry feed. Keep a close watch on areas where feed has been spread. Ensure that the supplier you source from can confirm the product is free from weed seed and not from a known infested area. Imported vehicles and machinery are free from weed seed and soil. Spell any stock in a holding paddock for at least 7 days.

Implement hygiene requirements for roadside management operators and wider community where this pest is present. Public awareness targeted to areas where Parthenium weed is absent.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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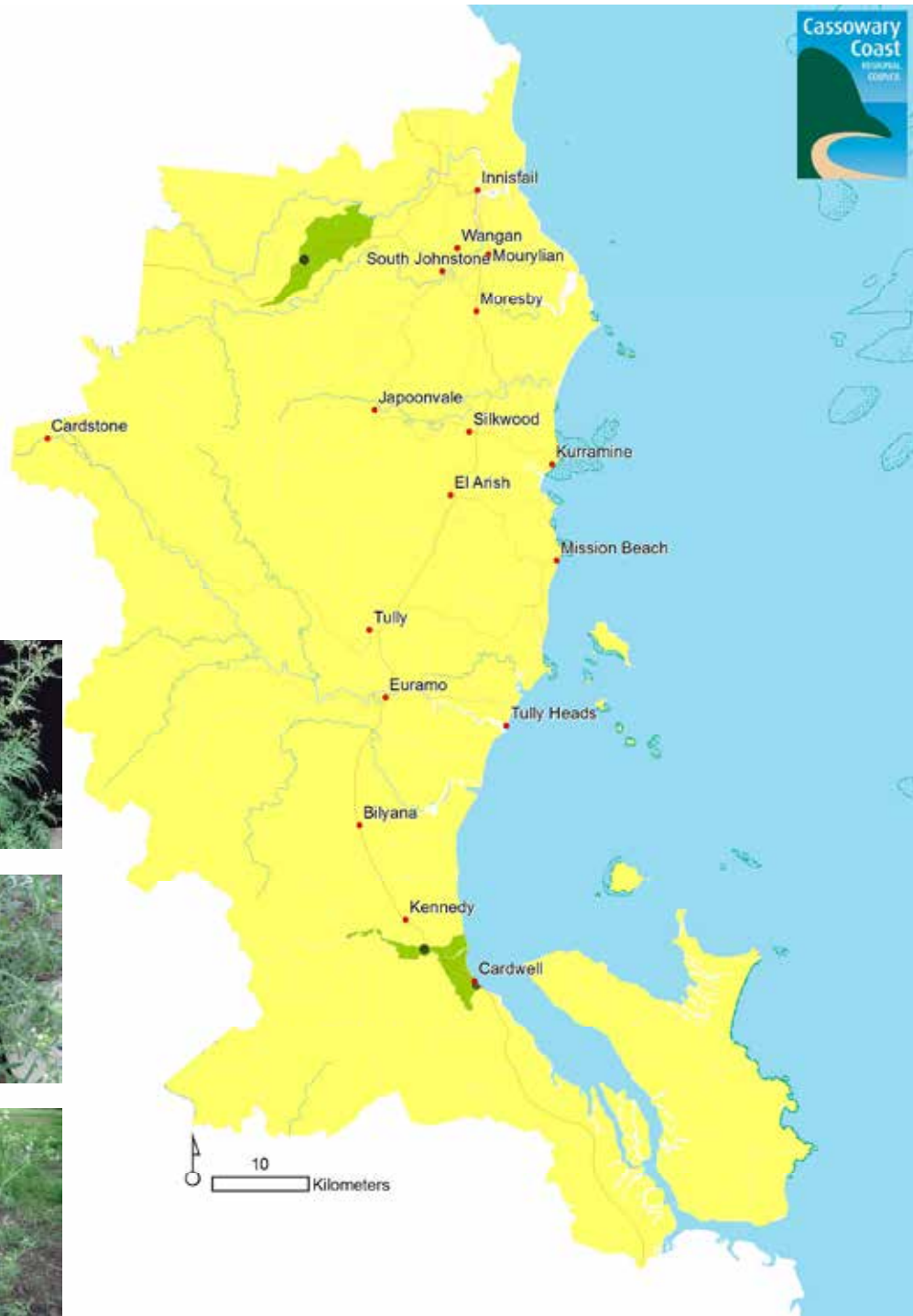


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Parthenium weed (*Parthenium hysterophorus*)



Herb

Terrestrial

Annual

Biosecurity Act Restricted matter category

2 Must be reported

3 Do not distribute

4 Do not move

5 Do not keep

6 Do not feed

Control



Spread



What is my biosecurity obligation?

In the prevention zone

It is an offence under the Biosecurity Act to move, share, give away or sell produce contaminated with this plant. Seek advice prior to works in vicinity of known locations. Do not move or accept plant material or soil unless you are sure it is from a clean source.

In the eradication zone

Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Identify high value assets and protect them from impacts where possible. Cattle should be held or at least 7 days prior to moving from infested areas to allow seed to pass .

Kosters' curse (*Clidemia hirta*)

National priority

State priority

Previous local

Conservation

Water resources

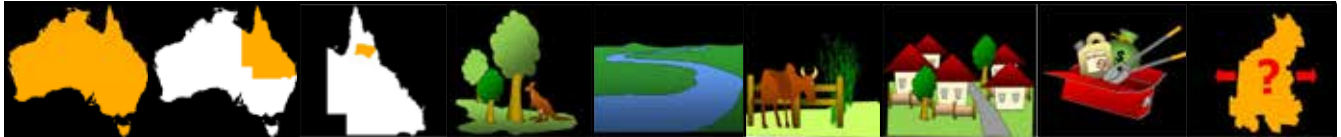
Agriculture and industry

Community and residential

Feasibility of control

Current extent

Priority



0.0/5

2.5/5

5.0/5

3.5/5

3.0/5

2.0/5

3.0/5

5.0/5

3.0/5

Details

Description: A perennial shrub 0.5 to 2m high. *Clidemia* has distinctive opposite leaves with parallel veins with a quilted appearance and covered in short stiff hairs. Small white flowers and deep purple/blue berries covered in short hairs. Can be easily confused with native bluetongue but distinctive leaves and fruit are the key features; if in doubt contact council to verify.

Distribution: Current Australian distribution is restricted to the Julatten area and an isolated outbreak in the Maple Creek area of Wooroonooran National Park.

Impacts: Kosters' curse is a serious pest of the environment and agriculture in over 16 countries. It has potential to spread to humid coastal districts of Australia. It smothers native vegetation and pastures by forming dense thickets.

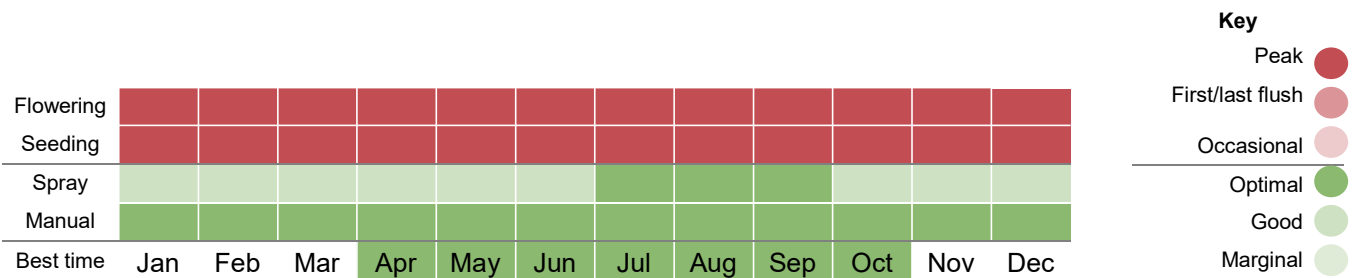
Key projects: There is an externally funded containment project underway at the only known infestation in CCRC LGA located in Wooroonooran National Park.

Background

Kosters' curse fruit is eaten and spread by birds so it can disperse long distances away from fruiting plants. Maintaining a lookout in areas of disturbance or where other fruiting weeds like brambles occur can assist with early detection.

Vehicle, mountain bike and footwear hygiene is important to reduce the risk of spread of Kosters' curse and other biosecurity issues when visiting our National Parks. The seed is long lived and can be stored in soil for over ten years. Kosters curse establishes and grows best in areas of disturbance. Regular checks of forest edges and maintenance/control of other bird attracting weeds like giant bramble and lantana may make your property less susceptible.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



www.cassowarycoast.qld.gov.au
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Cardwell - 4 Balliol Street



1300 763 903



@cassowarycoastregionalcouncil

Kosters' curse (*Clidemia hirta*)



Woody

Terrestrial

Perennial

Biosecurity Act Restricted matter category

2 Must be reported

3 Do not distribute

4 Do not move

5 Do not keep

6 Do not feed

Control



What is my biosecurity obligation?

In the prevention zone

Minimise the risk the of spread by ensuring potted plants, machinery, vehicles, materials and produce are free from seed contamination and from a weed free source. Report to any suspected sightings.

In the intensive control zone

Ensure that the movement of materials, soil, machinery, vehicles and produce from your property do no add to the risk of spread. Follow any instructions on signage in the vicinity of the known infestation in the Misty Mountains. Keep to formed roads and trails.

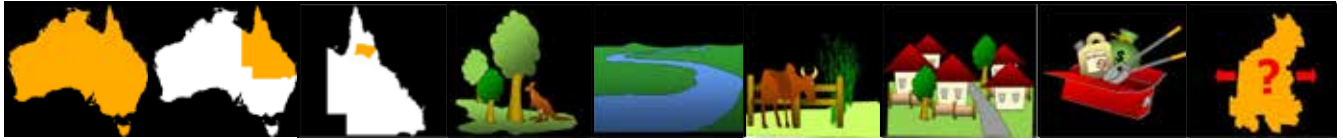
Spread



Feral pig (*Sus scrofa*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent

Priority



0.0/5 1.5/5 5.0/5 4.3/5 4.3/5 4.2/5 2.2/5 2.2/5 1.5/5

Details

Description: Feral pigs are usually black, buff or spotted black or white. They are generally nocturnal, omnivorous and can range from 5 to 50 square kilometres. Feral pigs breed throughout the year often producing two weaned litters per year.

Distribution: Common and widespread within the Cassowary Coast Region and the Wet Tropics although DNA testing indicates there are distinct populations.

Impacts: Feral pigs damage crops, stock, property and the natural environment. They transmit disease and could spread exotic diseases such as foot and mouth if this was introduced to the country. They have been identified as a likely vector of Panama TR4.

Key projects: CC RC and QPWS (ph 4048 3713)both provide trap loan services and can assist with co-ordinated baiting activities. Local agricultural producers can gain assistance through their industry support officers.

Background

Effective Feral Pig control needs to be coordinated across all land uses and utilise one or a variety of approved methods (shooting/trapping/baiting) in conjunction with neighbours. There is a practical guide available—"Trapping Feral Pigs on the Cassowary Coast " to assist landholders with developing the best approach for their situation.

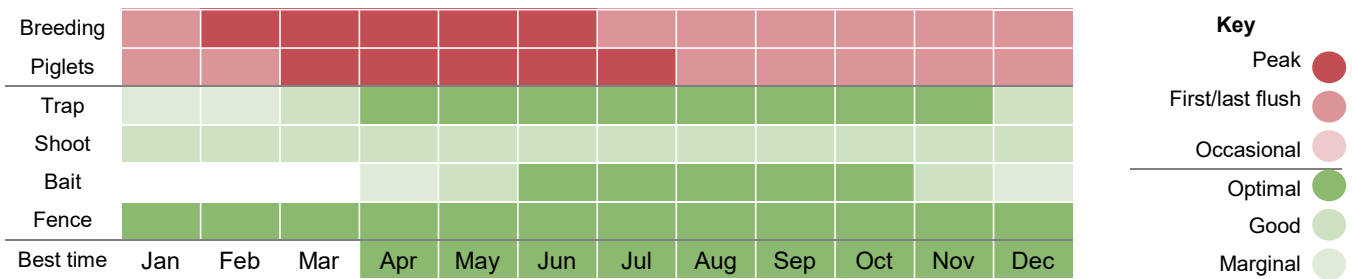
The main techniques suitable for feral pig control are not suitable for use in Urban/peri urban situations. In these areas exclusion fencing, trapping and undertaking baiting on the perimeters is the best approach.

All data for feral pig management (sightings/damage and control activities) can be entered in "Feral Scan" GIS platform which is monitored by council. This can help target control efforts to ensure effective reduction in numbers.

Hunting with dogs is not an endorsed control method and is limited in its effectiveness. Hunting is a recreational pastime and is unlikely to reduce damage caused by feral pigs. In QLD dogs can be used for flushing or locating pigs but cannot be used to bring them down (Animal Care and protection Act).

Feral pigs also have a negative effect on World Heritage listed natural areas, threatened species and ecosystems, CCRC reserves, urban and peri urban environments, essential infrastructure such as road shoulders, drainage systems, wetlands, farmland, private, rural and peri-urban land and other areas.

Control calendar



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.



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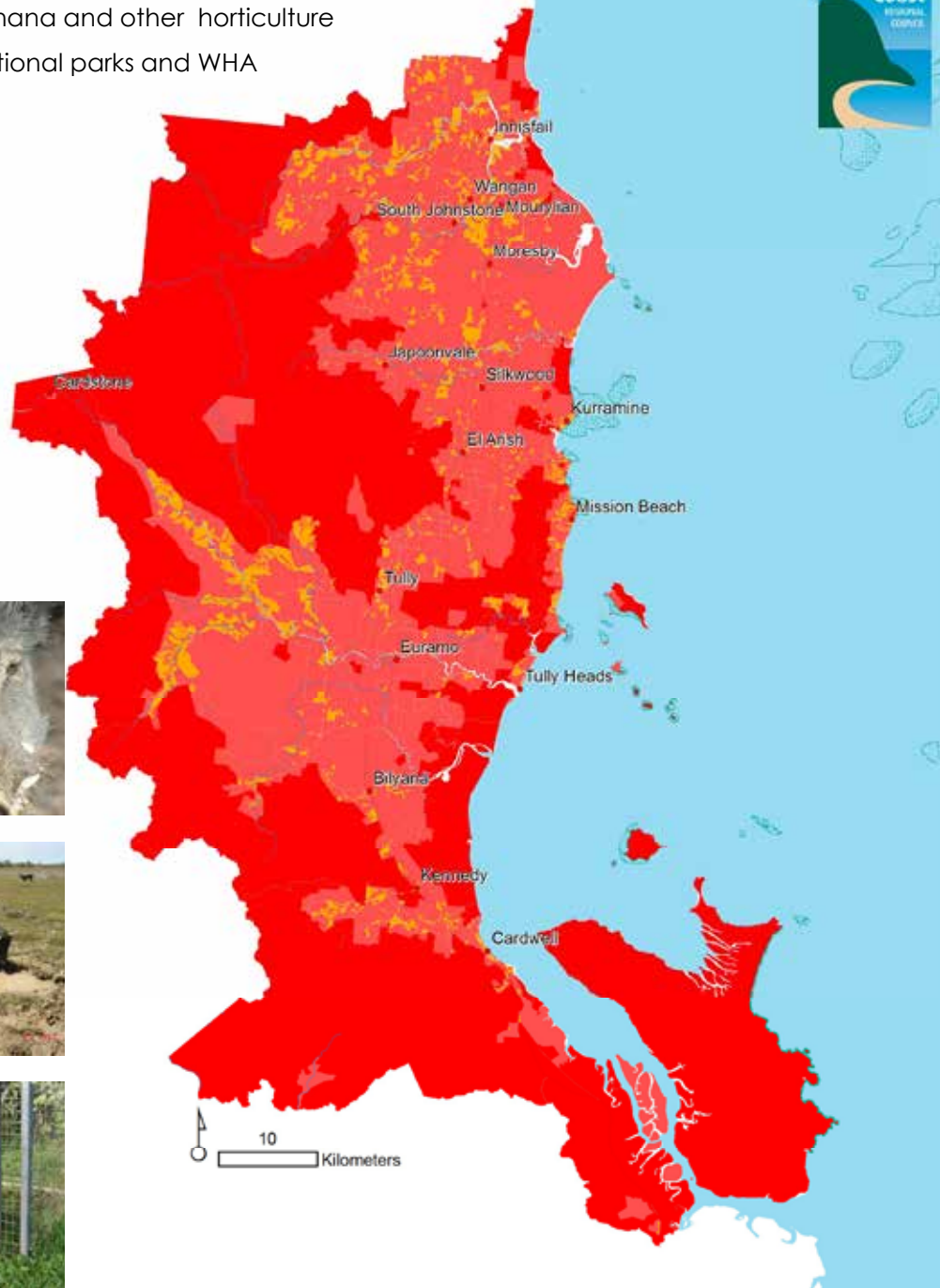
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Feral pig (*Sus scrofa*)

- Banana and other horticulture
- National parks and WHA



Vertebrate

Omnivore

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



What is my biosecurity obligation?

In the asset protection zone

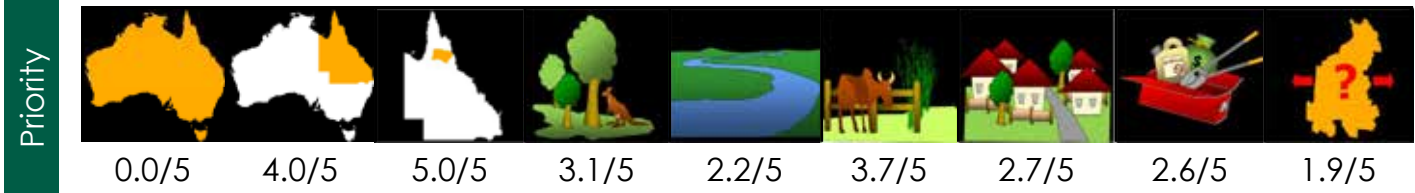
The feral pig is a restricted invasive animal under the Biosecurity Act 2014 and must not be distributed, fed given away, sold or released into the environment.

Undertake control activities for feral pigs on your property. Identify high value assets and protect them from impacts where possible. Smaller valuable assets like back yards and market gardens can be readily protected using exclusion fencing.

Ensure best practice biosecurity hygiene measures are in place to prevent spread of Panama TR4 and other biosecurity matter when controlling, trapping or hunting pigs. Comply with property access requirements. Participate in local and regional control programs.

Wild dog (*Canis familiaris lupis*)

National priority State priority Previous local Conservation Water resources Agriculture and industry Community and residential Feasibility of control Current extent



Description: Wild dogs include dingoes, wild domestic dogs and hybrids. a wild dog in a national park is considered a dingo, and is a protected animal under the Nature Conservation Act

Distribution: Wild dogs are widespread in both the agricultural and natural landscape, They also frequently exist on the outskirts of towns and even within urban areas.

Impacts: Wild dogs can cause stock losses in calving season and often carry parasites and pathogens. Near towns they can cause nuisance and impact on domestic animals. Wild dogs will prey on native animals and may assist maintain healthy population of animals like wallabies; however they may also impact on more vulnerable animals like cassowary.

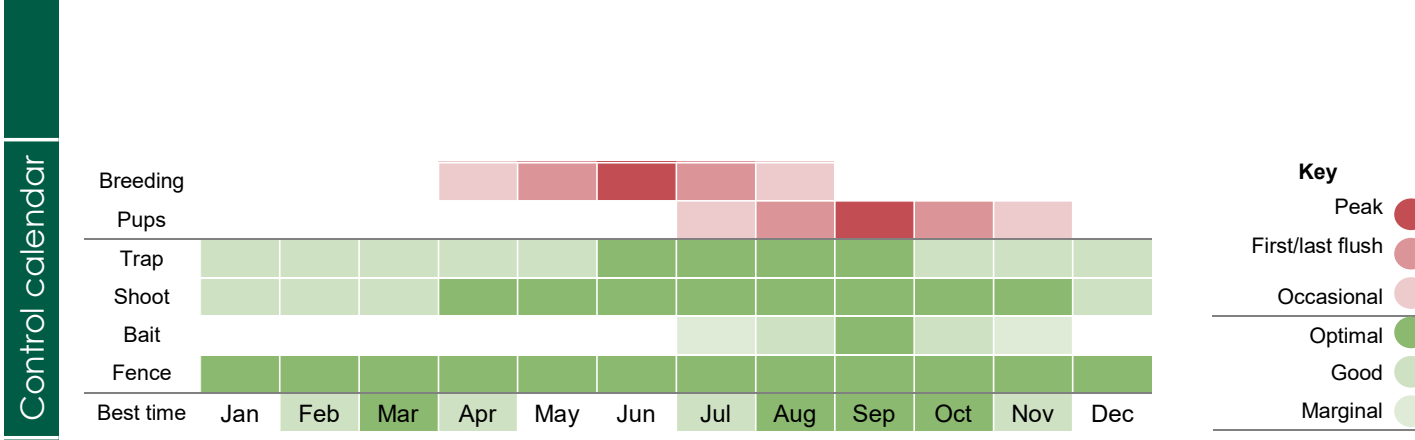
Key projects: An annual coordinated wild dog baiting program is conducted in October/ November. Other management actions respond to specific circumstances on a case by case basis.

An annual coordinated baiting and control program is in place to assist graziers manage wild dog populations. Wild dogs do have defined home territories but are able to cover large distances when moving to new areas either through competition for resources or by being pushed out of areas by more dominant animals.

In urban and settled areas Council will respond to individual issues as they arise on a case by case basis. Whilst wild dogs are generally not aggressive to people they may display threatening behaviour in urban areas such as attacking domestic dogs, scavenging or stalking.

Domestic pets and poultry are best protected by dog mesh fencing. Fencing also restrains your domestic animals and may assist in preventing other animals such as wallabies or pigs entering your property.

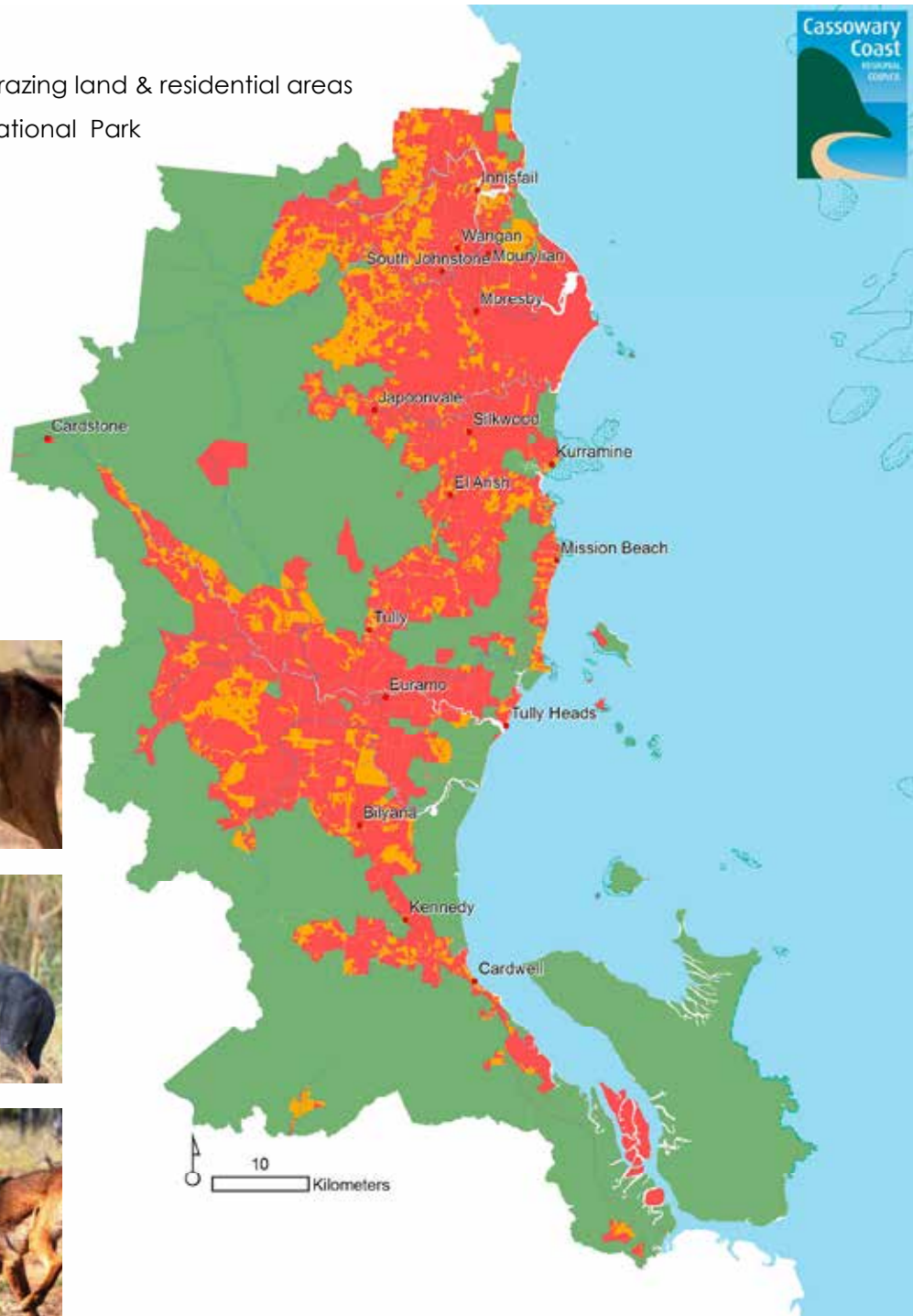
Dingo are protected under the Nature Conservation Act so cannot be controlled in protected areas as they are recognised as playing a valuable role in the landscape.



For more information on using this biosecurity action plan fact sheet, and further information on control tools, refer to the Cassowary Coast Local Area Biosecurity Plan available at cassowarycoast.qld.gov.au and customer service centres.

Wild dog (*Canis familiaris lupis*)

Grazing land & residential areas
 National Park



Vertebrate

Carinivore

Biosecurity Act Restricted matter category

2
Must be reported

3
Do not distribute

4
Do not move

5
Do not keep

6
Do not feed

Control



What is my biosecurity obligation?

The wild dog is a restricted invasive animal under the Biosecurity Act 2014. It must not be moved, kept (if a dingo), fed, given away, sold, or released into the environment without a permit.

Fencing your property is the most effective means of reducing the risk of wild dog impacts on domestic pets and poultry. Participating in cluster and district control programs is the most effective means of controlling wild dogs in grazing areas.

The coordinated wild dog management program does not include management of straying or problematic domestic dogs (including hunting dogs). These animals are domestic animals and are managed in accordance with Cassowary Coast Regional Councils Local Laws. For all requests or enquiries contact Council on 1300 763 903

In the asset protection zone

9 ADDITIONAL RESOURCES

Trapping Feral Pigs on the Cassowary Coast <http://www.cassowarycoast.qld.gov.au/pests-mosquitos-and-rodens>

Pest Plant and Animal Fact sheets: www.daf.qld.gov.au

National approach to weeds: www.environment.gov.au

Australian Weed Committee: www.environment.gov.au/biodiversity/invasive/weeds

Pest Animal Fact Sheets: www.feral.org.au

10 REFERENCES

Australian Weeds Strategy – A National Strategy for Weed Management in Australia - Natural Resource Management Ministerial Council -Commonwealth of Australia 2007

Resource Kit for Local Government Area Pest Management Plans, Queensland Primary Industries and Fisheries (Department of employment, Economic Development and Innovation) Queensland Government 2009

FNQ Regional Pest Management Plan 2006 – Far North Queensland Local Government Pest Plan Advisory Committee

Pest Management Planning – Local Government Pest Assessment, Prioritisation and Planning Framework – Draft for Consultation – Version 1.4 – September 2011 -Far North Queensland Regional Organisation of Councils

Regional Weed Seed Prevention Strategy 2008/2010, Far North Queensland Regional Organisation of Councils

11 OTHER PLANS

National

National Plans (WONS-Hymenachne and Pond Apple)
Four Tropical Weeds eradication programs/strategies
EPBC communities/species

State

Queensland Weed Seed Prevention Strategy, State of Queensland (Department of Primary Industries & Fisheries) 2008

Regional

Cross Regional Hymenachne Strategy
Terrain NRM Regional Plan
Pond Apple adaptive Management Strategy

APPENDIX 1

Pests declared under the Biosecurity Act 2014 which are known to be present in the CCRC Local Government Area, or Alert species (not present but nearby and suitable habitat exists)

<p>RESTRICTED MATTER CATEGORY 2,3,4,5</p>	<p>Cecropia spp. Mikania vine (Mikania micrantha) Miconia (Miconia calvescens) Limnocharis (Limnocharis flava) Koster's curse (Clidemia hirta) Madras thorn (Pithecellobium dulce)</p>
<p>ALERT SPECIES (NOT PRESENT) RESTRICTED MATTER CATEGORY 2,3,4,5</p>	<p>Mimosa pigra (Mimosa pigra) Neptunia – Water mimosa (Neptunia oleracea)</p>
<p>RESTRICTED MATTER CATEGORY 3</p>	<p>Siam Weed (Chromolaena odorata) Cabomba (Cabomba caroliniana) (WONS) Giant sensitive plant (Mimosa diplotricha) Hymenachne and hybrids (Hymenachne amplexicaulis) (WONS) Kudzu (Pueraria montana) Parthenium (Parthenium hysterophorus) (WONS) Pond Apple (Annona glabra) (WONS) Prickly Acacia (Vachellia nilotica) (WONS) Prickly Pear (Opuntia spp.) Giant Rat's tails grass (Sporobolus pyramidalis and S. natalensis) Salvinia (Salvinia molesta) (WONS) Sicklepod (Senna obtusifolia) Thunbergia (Thunbergia grandiflora) Tobacco weed (Elephantopus mollis) Water lettuce (Pistia stratiotes) Water hyacinth (Eichhornia crassipes) Thunbergia Laurifolia Hygrophylla costata Singapore Daisy (Sphagneticola trilobata) African Tulip (Spathodea campanulata) Asparagus fern (Asparagus aethiopicus) Harungana (Harungana madagascariensis) Oleander (Nerium oleander) Lantana (Lantana camara) (WONS) Camphour Laurel (Cinnamomum camphora) Mother of Millions spp.</p>
<p>ALERT SPECIES (NOT PRESENT) RESTRICTED MATTER CATEGORY 3</p>	<p>Alligator weed (Alternanthera philoxeroides) Fire weed (Senecio madagascariensis) Gamba grass (Andropogon gayanus)</p>

<p>KNOWN ENVIRONMENTAL WEEDS (NON-DECLARED)</p> <p>Although not declared these plants are known to spread into our locally environments and waterways</p>	<p>Syngonium Epipremnum aureum Murraya paniculata Ardisia crenata A. elliptica Golden cane Clumping fishtail Duranta spp. Guinea grass Grader grass Morning glories Dioscorea alata Aluminium plant Cocos nucifera Travellers palm Cyperus papyrus</p>
<p>PEST ANIMALS</p>	<p>Feral pig (<i>Sus scrofa</i>) Wild dog (<i>Canis familiaris</i>) Feral cat (<i>Felis catus</i>) Indian mynah Asian honey bee Electric ants (<i>Wasmannia auropunctata</i>) Chital (axis) deer (<i>Axis axis</i>) Rabbits (<i>Oryctolagus cuniculus</i>)</p>
<p>PEST ANIMALS ALERT SPECIES (NOT PRESENT)</p>	<p>Red-eared slider turtle (<i>Trachemys scripta elegans</i>) Asian green mussel (<i>Perna viridis</i>) Yellow crazy ants (<i>Amoplolepis gracillipes</i>)</p>

APPENDIX 2

Pests declared under the Subordinate Local Law No 3 (Community and Environmental Management) 2011

LOCALLY DECLARED	All plants and animals listed in local government Pest Plant and Animal Register including, but not limited to: Brillantaisia lamium (Brillantaisia lamium) Navua sedge (Cyperus aromaticus) Aleman grass (Echinochloa polystachya) Hiptage (Hiptage senagalhensis) Leucaena (Leucaena leucocephala) Bog moss/weed (Mayaca fluviatilis) Bamboo -running (Phyllostachys sp and Bambusa spp - running) Mother in law's tongue (Sansevieria trifasciata) King's mantle, bush clock vine (Thunbergia erecta)
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