

The Cape York Weeds and Feral Animals Program: undertaking pest management on Cape York

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Summary The Cape York Weeds and Feral Animals Program carries out weed and feral animal management throughout the Cape. Since 1999 the group has been the first and only group funded specifically for the management of weeds and feral animals within Cape York. The group promotes the use of new and innovative management options along with tried and tested methods to all stakeholders within the Cape. From parkinsonia at Pormpuraaw to pond apple in the Torres shire, the Cape York Weeds and Feral Animals Program covers the cape. The group has successfully built strong relationships with the majority of stakeholders throughout the cape through a thorough understanding of the community needs and the quality of the work completed.

The following paper presents some of the most recent projects as well as ongoing projects that the group is involved with, giving an overview of weed management on Cape York Peninsula

Keywords Cape York Peninsula, mapping, pest management planning.

INTRODUCTION

The Cape York Weeds and Feral Animals Program (CYWAFAP) began in 1999 with an overall goal to involve all stakeholders in ongoing coordinated and effective pest management for long-term and sustainable ecological and economic growth in the region. The program's staff are a dedicated team supported by Cook Shire Council but funded independently through grants and contract work and operate throughout Cape York Peninsula (CYP) in North Queensland.

The CYP region defined for the program runs from the Bloomfield River catchment in the east, west to the Nassau River mouth, north to and including the Murulug Archipelago. The region is over 200,000 square kilometres (roughly the size of Victoria) and has a population of around 20,000. The group undertakes a variety of activities within this area from pest management planning to on-ground control work on all tenures of land, and pride themselves in the innovative ways that they achieve their goals. The team is currently undertaking work on parkinsonia (*Parkinsonia aculeata*) on the west coast, hymenachne

(*Hymenachne amplexicaulis*) in the Cook Shire, pond apple (*Annona glabra*) in Cook Shire and Torres Shire, bellyache bush (*Jatropha gossypifolia*) in the Palmer River Region, rubber vine (*Cryptostegia grandiflora*) around the Containment line, high priority weeds in the Northern Peninsula Area (NPA). It also undertakes planning at all levels from the individual property level to the regional level.

PROGRAM COMPONENTS

The program has been hosted and supported by the Cook Shire Council since its beginning allowing the group to easily access funding and undertake work throughout the region. The program encountered several hurdles at its beginning. The major issue related to access to land and the lack of trust towards the group from various stakeholders stemming from past problems with government agencies. Over time these issues were resolved through continued determination and quality of the work undertaken.

Currently the group is in the process of undertaking several programs within CYP and the following will give a brief overview of work.

Parkinsonia survey and control Parkinsonia is currently confined to the west coast of CYP and seems to thrive within marine plain environments. This program focused on the infestations located around the township of Pormpuraaw. Historically, work has been undertaken on the Pormpuraaw floodplains treating mature seed bearing trees. Follow-up treatment on seedlings was conducted in 2004. To ensure that these areas were not allowed to develop mature trees, further treatment was required to remove any new seedlings. This program included components of survey and control as well as including a component of training for the Pormpuraaw Land and Sea Rangers. CYWAFAP staff provided training in all aspects of weed management from application techniques through to weed identification, mapping, safe chemical use and handling, and use and maintenance of equipment. This program has achieved exceptional results with over 100 hectares of parkinsonia receiving treatment and began winding down in late 2007. Pormpuraaw

now has a team of capable Land and Sea staff with a minor and manageable outbreak of parkinsonia. CYWAFAP's next goal is to target the infestations found on surrounding lands using similar techniques. This program has been funded through the Cape York Land and Sea Initiative.

Hymenachne survey and control Hymenachne has a limited distribution within CYP, located mostly within the Cook Shire with an isolated outbreak found within the NPA. CYWAFAP have been controlling this weed in conjunction with Far North Queensland Regional Organisation of Councils and the funding has been provided through the Defeating the Weed Menace Program. There are several issues in the control of this weed within the region, mostly related to safety due to estuarine crocodiles being present in the waterways. Control methods used included hand pulling and chemical applications from small vessels and an Argo all-terrain vehicle.

Pond apple survey and control Pond apple has spread throughout the east coast of CYP and on to some of the islands located within Torres Strait. The group is undertaking several programs for the management of this weed within our defined area. Control programs are running within the Cook Shire and on the islands of Torres Shire, while a survey encompassing the entire east coast of CYP is underway. This survey will be undertaken with an R44 helicopter and cover approximately 900 kilometres of coast line. The survey will require an air crew and a ground crew to move fuel and camp further up the coast line as the survey progresses. The survey will then be followed up by ground truthing, undertaken with quad bikes over specified areas of the survey. This survey will give the group the ability to target strategic infestations along the coastline in the following years. This program has been funded through the Defeating the Weed Menace and the Blueprint for the Bush funding programs.

Bellyache bush in the Palmer River Region Bellyache bush is confined to the Palmer River Region within the Cape. Staff from CYWAFAP have undertaken work on this invasive weed since 2000 and have managed to minimise the spread of the weed from the area. Extensive control programs have been undertaken in late 2006 and funding has been secured to continue and build upon this work into 2008. Aerial spraying trials have been undertaken in the area in the past in conjunction with the Mitchell River Catchment Group and the Tropical Weeds Research Centre at Charters Towers. CYWAFAP staff also assisted with the initial release of a biocontrol agent within the area.

Rubber vine survey and control Rubber vine is believed to be spreading on land beyond the containment line within CYP and this program is designed to survey the extent of the infestations north and south of this line. The program will consist of an initial aerial survey of the area from the Kendal River Catchment right across the Cape including the Lakefield National Park access road up to the Port Stewart access road. It will total approximately 50 hours of air time within this area. Once the initial survey has been completed, strategic outcrops of rubber vine can be targeted. The second part of the survey will focus south of the containment line including the Holroyd River Catchments and most of the Normanby River and Laura River Catchments. The objective of this is to map as much of the infestation as possible so that rubber vine can be strategically targeted in an attempt to push the weed back if possible.

High priority weeds in the NPA This project is targeting four main weeds within the NPA. These are gamba grass (*Andropogon gayanus*), lion's tail (*Leonotis nepetifolia*), pond apple (*Annona glabra*) and lantana (*Lantana camara*). All roads, tracks, woodlands and coastal areas have been surveyed using four wheel drive vehicles and quad bikes to ascertain the size of each infestation prior to control work being undertaken. Once this survey was completed, geographical information system (GIS) software was used to compile accurate maps of the infestations to be supplied to the councils located within the area. Control work was completed initially from the outer isolated infestations working inward to try and minimise the spread of these weeds into more sensitive areas. To assist the Local Governments within the area training was provided to the indigenous Land and Sea Rangers, council staff and Community Development Employment Projects workers. They were provided with training in the use of global positioning system (GPS), plant recognition/ taking plant specimens, safe chemical handling, maintenance and care of equipment and application techniques. CYWAFAP also provided knapsack spray units to each of the councils and a 400 L quick spray unit to be shared within the area. An awareness campaign was run during the project to inform community members of the targeted weeds within the NPA. Awareness days were held at the five local government centres and posters were produced in the native language of the communities. The program was initially funded through the Cape York Land and Sea Initiative. To continue and build upon this work, further funding has been sought through the Defeating the Weed Menace program and Natural Heritage Trust.

Weed mapping throughout the Cape CYWAFAP hold an extensive GIS database on mapped weeds throughout the Cape. The database encompasses weed mapping on all tenures of land on a range of different weed species including declared and non declared weeds. Mapping is completed using a variety of different methods from the use of basic GPS units capturing individual way points through to the use of handheld PCs incorporating moving map technology and capturing polygons and way points. Handheld PCs are combined with ARCPAD software which incorporates the use of forms within the shape file. These forms are specifically designed for mapping weeds within our region and through the use of drop-down boxes the majority of data attribute input is completed in the field. The group has been able to provide some handheld PCs to the Land and Sea officers throughout the Cape training them in their use; in return these rangers are providing CYWAFAP with data from within their area.

Pest management planning CYWAFAP has assisted in the completion of Local Government Pest Management Plans throughout CYP. The group has also been the driving force behind the Cape York Peninsula Pest Management Plan, drafting and refining the document for final release. CYWAFAP also undertake Pest Management Planning for properties within the region providing landholders and managers with expertise in management techniques and weed identification. We also run an incentive program for properties with pest

management plans distributing reimbursement of up to \$1000 for weed control and \$500 for animal control. This reimbursement can include chemical costs, the purchasing of weed control equipment such as spray units and knapsacks and the purchasing of 1080 or ammunition for animal control.

SUMMARY OF ACHIEVEMENTS

Since the project's beginning, mapping and control has always been the focus of the group and this has lead to over 350 square kilometres of weeds being mapped and treated throughout the cape. The group has also produced two weed identification guides tailored for the specific region in the form of an I.D pocket guide and an interactive key to be used on PC's (with assistance from other organisations). An extensive GIS database has been established and is available containing accurate information on the distribution of weeds and highlighting key control areas. Through the program's committed staff and the many projects that have been completed in the past, CYWAFAP has been able to raise the awareness of weeds and pest animals on CYP across a wide range of stakeholders. This increased awareness would be CYWAFAP's greatest achievement.

ACKNOWLEDGMENTS

Thank you to the staff at CYWAFAP for their input and everyone involved with weed management throughout the CYP.