

Management options for high biomass grassy weeds in Cape York

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National Environmental Science Programme

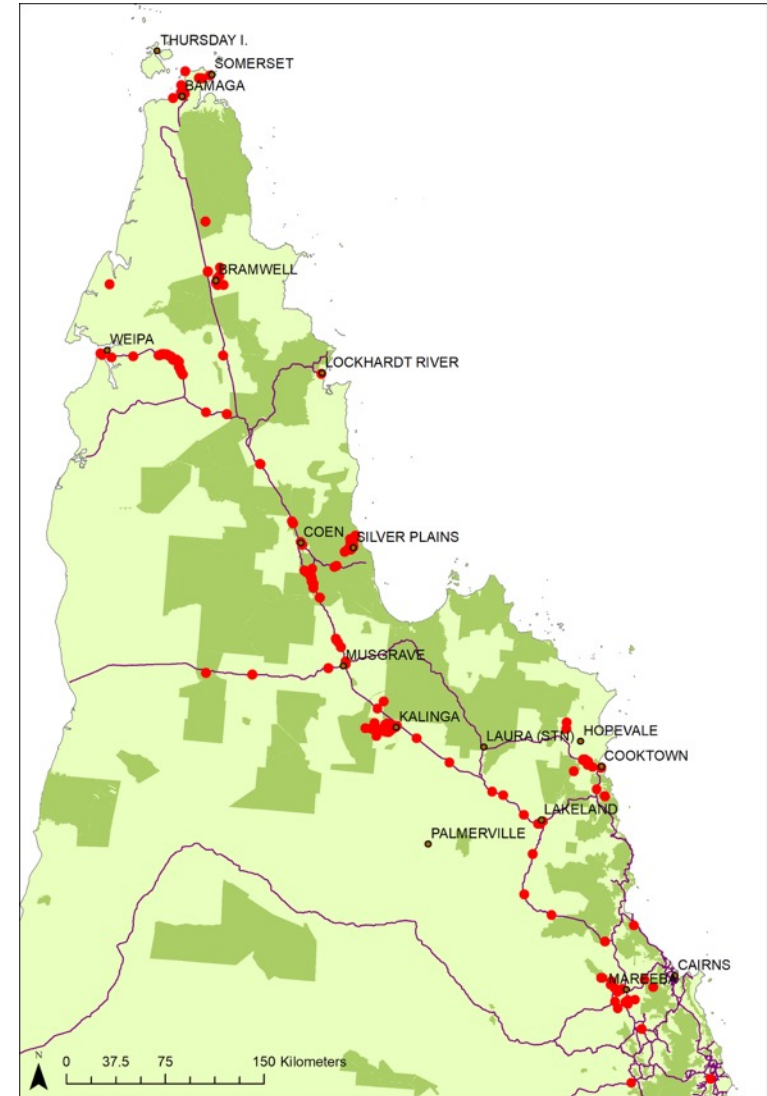
Background

- Focused on Gamba grass – key threatening process EPBC Act
 - Released in mid 1980's
 - Promoted as pasture species
 - Rapid expansion in NT in mid-2000's
 - Declared a weed in all northern States in 2008
 - Declared a WONS in 2012 & key threatening process (under EPBC Act)



Gamba in Queensland

- First record in Bamaga in 1992
- Core infestations in Qld – Northern Peninsula Area, Coen, Weipa and Cooktown and Mareeba.
- Widespread distribution along roadsides



Building on existing projects in NT

- **Management:** Better planning and management practices based on an improved ability to predict catchment scale changes that may lead to ecosystem failure.
- **Fire behaviour:** Assessment of the use of fire behaviour models and fire spread simulators for northern Australia.
- **Ecosystem impacts:** Improved understanding of the impact of invasive grasses on ecosystems
- **Models:** Revised conceptual models of savanna transformation following invasion by invasive grasses.
- **Savanna burning:** Evidence-based advice on how to account for gamba grass-invaded savanna in the Federal Government's Carbon Farming Initiative's Savanna Burning Methodology.



• **Partners and collaborators**

- CSIRO Project leader -Helen Murphy; field monitoring Matt Bradford and Andrew Ford
- CDU – Natalie Rossiter-Rachor; UWA – Sam Setterfield – weed biology and ecology, weed spread
- Qld DAFF – Wayne Vogler and Joe Vitelli – application of herbicide trials
- QPWS – John Clarkson and others – facilitation and coordination of NP input
- Co-contributors – FNQ ROC, Shane Campbell DAFF/UQ, Traditional Owners associated with NP

Control

- Lack of registered herbicides for use in natural systems and conservation areas, especially for large infestations
- Non-selectives such as glyphosate have off-target effects
- Chemical control currently relies heavily on minor use permits
- Access for control is difficult in the wet season (growing season)

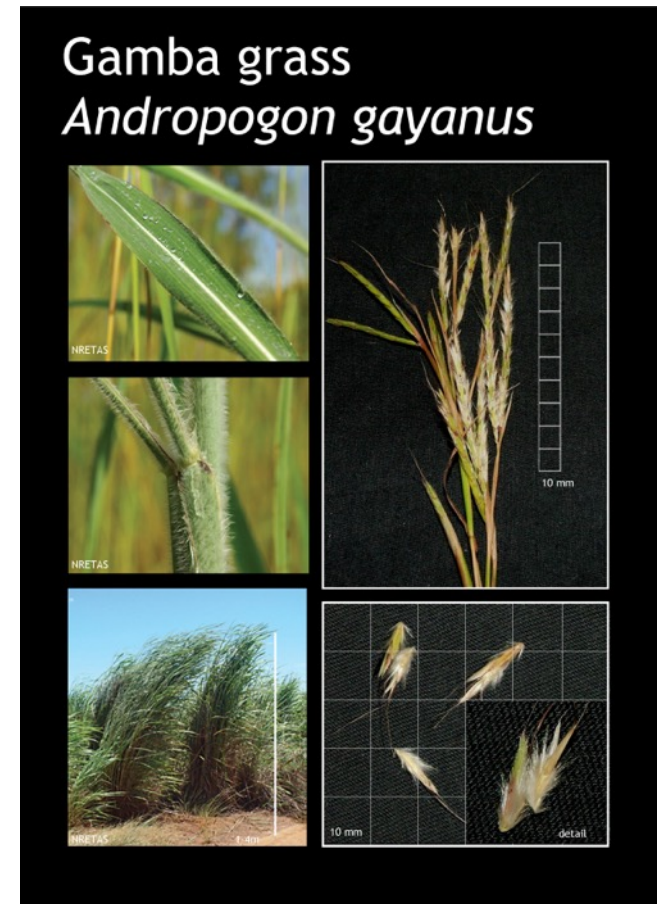


Project goals

- Consolidate current knowledge about biology and the application and effectiveness of herbicide management
- Investigate new control methods via field trials
 - Focused on selectivity and dry season application
- Establish technical protocols and tools for upscaling of new control methods from incursions to infestations

Approach

- Planning and consolidation of current knowledge
 - Workshop and review
- Establish field trials to test efficacy of several residual herbicides (e.g. Flupropanate and Sulfometuron) and application methods (e.g. granular, splatter gun)
 - Sites located in/adjacent conservation areas
 - Monthly monitoring herbicide effectiveness and native vegetation cover and diversity
 - Off-target effects



Approach

- Upscaling control from incursions to infestations
 - Best practice management of infestations
 - Upscaling herbicide use
 - Application of containment and spread modelling

Timing:

- Workshop – May 2018
- Field trial establishment - August 2018
- Monitoring – through December 2020



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