



# Weeds of National Significance

## National Blackberry Program

CFOC 2009-20012

Funding Priorities for the WoNS National Blackberry Program

### Blackberry Priority Projects

Blackberry Priority Projects	Strategic importance	CFOC Targets	Possible project locations/ NRM regions	Possible partners & contact details	Approx Costs
<p><b>1.** Mapping extent and density of blackberry species.</b></p> <p><b>Gap</b>-We need to accurately map the different taxa of blackberry in each State (except WA-where they have been mapped) to enable best-practice management of infestations. As the different species of blackberry react differently to various management (e.g. blackberry rust, herbicides etc) there is a risk of one species replacing another – thus increasing the extent and density of infestations in an area. This mapping will enable us to strategically manage the different species, set up control lines between them and aim for eradication of the more resistant species. We also need to predict where the different species will spread. This would enable us to better predict the implications of climate change.</p> <p><b>Output</b>– National Blackberry species mapping for each state.</p> <p><b>Outcome</b>- Knowledge gained on the distribution of different Blackberry species enabling strategic control measures.</p> <p><b>Timeline</b>- Mapping of Blackberry species in one state can be done in one year with 1.5-2 trained people.</p>	<p>Achieves National Blackberry Strategy (NBS) Objectives 2.1.1, 2.2.2, 2.2.3.</p>	<p>Biodiversity and natural icons: Reducing the impact of weeds/WoNS;</p> <p>Community , skills knowledge, and engagement – increasing community knowledge and skills</p>	<p>SA, VIC, Tas, NSW, ACT, QLD</p>	<p>Penny Richards National Blackberry Coordinator DPI Frankston Vic Ph: (03) 9785 0135 <a href="mailto:Penny.Richards@dpi.vic.gov.au">Penny.Richards@dpi.vic.gov.au</a></p> <p>State Herbariums Dr Bill and Robyn Barker: -SA Herbarium</p> <p>National Blackberry Taskforce State Blackberry Taskforces Michael Reid: Vic Blackberry Taskforce CSIRO Universities e.g. Flinders Univ. SA State Government Departments Community Landcare Groups Local Government</p>	<p><b>\$150K (excluding GST) per state.</b></p>
<p><b>2. Improving our knowledge of the blackberry taxa.</b></p> <p><b>Gap</b>-We need to know a lot more about the biology and ecology of different blackberry species. We need to compare characteristics of</p>	<p>Achieves NBS Objectives: 2.1.1, 2.1.2,</p>	<p>Community , skills knowledge, and engagement – increasing community</p>	<p>SA, VIC, TAS, NSW, QLD, WA</p>	<p>Dr Bill and Robyn Barker: SA Herbarium Dr Molly Whalen, Flinders University- SA Dow Agrosiences –Mr. Jim</p>	



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<p>blackberry taxa to see how much they colonise different places and have different impacts. We need to better understand and document the reactions of different Blackberry species to herbicides and other management options such as the Blackberry rust. Understanding seed longevity is also necessary for many management options; especially the feasibility of eradication.</p> <p>There is still work needed in the taxonomy of the group. Further molecular analyses using suitable markers would be good to test the present taxonomy. Incorporating information on <i>Rubus fruticosus</i> agg.species in America and New Zealand may also be helpful in getting some understanding of how these taxa are evolving.</p> <p><b>Output-</b> Upgraded Blackberry species identification CD Rom. Database to document information on the reactions of different Blackberry species to herbicides and other management options such as the Blackberry rust.</p> <p><b>Outcome-</b> increased understanding of the biology and taxonomy of <i>Rubus fruticosus</i> agg in Australia and improved capability to identify Blackberry taxa in Australia. Improved strategic management of the different blackberry taxa.</p> <p><b>Timeline-</b> 3 years</p>	<p>2.2.2 2.2.3 2.3.2 2.3.3 2.3.4</p>	<p>knowledge and skills</p> <p>Biodiversity and natural icons: Reducing the impact of WONS;</p>		<p>Phimster,</p>	
<p><b>3. Early warning rapid response of new blackberry taxa/ species.</b></p> <p><b>Gap-</b>There is the potential for both existing and newly introduced <i>Rubus</i> species to become naturalised in Australia and spread. We need to develop (through a Weed Risk Assessment process) a list of new potentially weedy <i>Rubus</i> species.</p> <p><b>Output– 1.Exisitng Weed Spotter/ Weed Alert</b></p>	<p>Achieves NBS Objectives: 2.1.4, 2.3.3</p>	<p><b>Biodiversity and natural icons:</b> Reducing the impact of weeds/ WONS;</p> <p>Community , skills knowledge, and engagement – increasing</p>	<p>QLD, WA, Tas , NSW , SA Vic</p>	<p>1. Vic Weed Spotter Coordinator, Catherine McInerney, DPI VIC Ph : (03) 5226 4401 Karen Stewart – Tas</p> <p>2. Dr Bill and Robyn Barker: -SA Herbarium NBT State Herbariums</p>	<p>1.\$50,000 2. \$100,000 3. \$75.000-WRA</p>



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<p>networks to be trained in the identification of 'Sleeper' <i>Rubus</i> species and to be able to identify and report on new <i>Rubus</i> species incursions.</p> <p><b>2.</b> A formal targeted surveillance process for new Blackberry taxa.</p> <p><b>3.</b> A list of potentially new weedy <i>Rubus</i> species, developed through a Weed Risk Assessment process.</p> <p><b>Outcome-</b> A group of trained Weed Spotter/ Weed Alert contact Officers trained to identify and report new weedy <i>Rubus</i> infestations. Formal surveys undertaken for new weedy Blackberry taxa .New weedy <i>Rubus</i> species incursions reported and eradicated.</p> <p><b>Timeline- 1-2 years.</b></p>		<p>community knowledge and skills</p>		<p>3. Dr.Robin Adair &amp; DPI - Vic WRAT.Ph: 03 9785 0111</p>	
<p><b>4. Training workshops for the identification of blackberry species.*</b></p> <p>With the release of the interactive <u>CD-ROM 'Blackberry; an identification tool to introduced and native <i>Rubus</i> in Australia</u> ,there is a growing demand for workshops to be run nationally to enhance the use of the CD-ROM and train people in the identification of the 23 introduced and 11 native species in Australia. This will lead to increased capacity of weed professionals and community members to identify the blackberry species in their area; increased community capacity to map blackberry species and more targeted and effective blackberry control programs.</p> <p><b>Output</b>– increased capacity of weed professionals and community members to identify the Blackberry species in their area;</p> <p><b>Outcome-</b> increased community capacity to map</p>	<p><i>National Blackberry Strategy</i> Achieves Objective 2.1.3 2.2.1</p>	<p><b>Community , skills knowledge, and engagement –</b> increasing community knowledge and skills</p> <p><b>Biodiversity and natural icons:</b> Reducing the impact of WONS;</p>	<p>Known areas of demand for more workshops are: <b>NSW-</b> Murrumbidgee, Bega, <b>SA-</b> Adelaide and Mount Lofty Ranges <b>TAS-NRM</b> North NRM South – Huonville <b>WA-</b> Manjimup</p>	<p>National Blackberry Taskforce</p> <p>NSW Department of Primary Industries</p> <p>Murrumbidgee Rural Studies Centre Tocal College-Annette Beer-02 6938 1671</p> <p>Dow Agrosociences-Greg Wells- 9740 7300</p> <p>State Government Departments</p> <p>Community Landcare Groups</p> <p>Local Government</p>	<p><b>\$8,400 per workshop</b></p>



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Blackberry species and more targeted and effective Blackberry control programs. <b>Timeline-</b> The workshops are run over summer when Blackberry is flowering –from late Nov to mid February					
<p><b>5. Nationally Strategic On-ground control.</b></p> <p><b>Gap-</b>The development of <u>Eradication Zones and Containment Lines/ areas</u> for blackberry is needed in each state, particularly on the edges of its range. Eradication and control of outliers through 'best practice management' is needed especially in areas with high community support. There is a need to identify threats from Blackberry to determine containment lines &amp; prioritise eradication /control areas.</p> <p><b>Output-</b> <i>National</i> Eradication Zones and Containment Lines established in areas of need</p> <p><b>Outcome-</b> XX ha of Blackberry controlled /eradicated &amp; strategic control of the outlier infestations of Blackberry</p> <p><b>Timeline-</b> 1-4 years</p>	<p>Achieves NBS Objectives</p> <p>2.1.1 2.1.2 2.1.3 2.2.1 2.2.3 2.2.4 2.2.5 2.3.3</p>	<p><b>Biodiversity and natural icons:</b></p> <p><b>Reducing the impact of WONS and addressing outliers &amp; containment lines</b></p> <p>Community , skills knowledge, and engagement – increasing community knowledge and skills, increasing</p>	<p>See National Blackberry Program Priority Framework for details on locations of priority areas for <u>eradication ,containment, outlier control, Core infestation: (Contain / Reduce Impacts) and Surveillance Zones</u></p>	<p>National Blackberry Taskforce Penny Richards National Blackberry Coordinator DPI Frankston Vic Ph: (03) 9785 0135 <a href="mailto:Penny.Richards@dpi.vic.gov.au">Penny.Richards@dpi.vic.gov.au</a></p> <p>State Blackberry Taskforces</p> <p>State Government Departments</p> <p>Community Landcare Groups</p> <p>Local Government</p>	<p><b>Depends on area and amount of Blackberry to be controlled .</b></p>
<p><b>6.** Strategic management of Blackberry species in SE Qld.</b></p> <p><b>Gap-</b>There is a need to identify where Blackberry is spreading in SE Qld (to determine outliers) and using Risk Assessment tools to identify threats from Blackberry to determine containment lines &amp; prioritise eradication /control areas. This project will continue an initial Blackberry community awareness raising/extension program (in the Southern Downs Regional council area) and control works in the strategically important Border region of SE Queensland.</p> <p><b>OUTPUT-</b>Another 3000 ha of Blackberry controlled in Southern Downs Regional council</p>	<p>Achieves NBS Objectives:</p> <p>2.1.1, 2.1.2, 2.1.3 2.2.1 2.2.2 2.2.3 2.2.4 2.2.5 2.3.2 2.3.3</p>	<p><b>Biodiversity and natural icons:</b></p> <p><b>Reducing the impact of weeds/WoNS;</b></p> <p><b>Community , skills knowledge, and engagement –</b> increasing community knowledge and skills Increasing participation in nrm.</p> <p><b>Sustainable farm</b></p>	<p><b>Sth QLD – QMDC &amp; CA NRM regions –</b> High elevation – granite belt around the Southern Downs Regional Council area &amp; Toowoomba area.</p>	<p>Penny Richards National Blackberry Coordinator Ph: (03) 9785 0135 Mobile: 0448 304 347 <a href="mailto:Penny.Richards@dpi.vic.gov.au">Penny.Richards@dpi.vic.gov.au</a>.</p> <p>Graham Hardwick –DPI QLD/ NBT QLD Rep Troy Crittle –DPI Warwick Grant Buetel – SDRC QMDC CA</p>	<p>\$40K (excluding GST)</p>



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area , <b>OUTCOME</b> -integrated and coordinator Blackberry control program achieving on ground results of xx ha controlled and prevented from spreading, <b>Timeline- 1-3 years</b>		<b>practices</b> – improving knowledge and skills of land managers.			
<b>7. **Blackberry Action Groups</b> The Victorian Community Weed Model (CWM) can be used to facilitate the implementation of Blackberry Action Groups in areas with high community support (this could also incorporate a 'seeding' Incentive Program). <b>OUTPUT</b> - Blackberry Action Groups formed in areas of high potential community engagement <b>OUTCOME</b> - the community to adopt techniques that will ensure long term Blackberry control, landscape change and capacity building of groups. <b>Timeline- 1-5 years</b>	<b>Action 2.3.3:</b>	<b>Community , skills knowledge, and engagement – increasing community knowledge and skills</b> , Increasing participation in nrm <b>Biodiversity and natural icons:</b> Reducing the impact of WONS;	Sthn QLD SW WA- In (Bunbury – Collie Containment line/eradication zone? East Gippsland- VIC	Penny Richards National Blackberry Coordinator DPI Frankston Vic Ph: (03) 9785 0135 <a href="mailto:Penny.Richards@dpi.vic.gov.au">Penny.Richards@dpi.vic.gov.au</a>  Michael Reid: Vic Blackberry Taskforce EO/Coordinator Ph: 02 6043 7975	<b>\$100,000 per BAG area</b>
<b>8. Adoption of Best Practice Management (BPM)</b> <b>Gap</b> We need to further refine our Best Practice Management (BPM) information & <b>fill any gaps in knowledge</b> especially in terms of <b>herbicide use, non- herbicide methods, use of integrated methods</b> and BPM where blackberry is providing <b>critical habitat for native fauna.</b> <b>Output</b> – Programs in place to elucidate knowledge gaps. Monitoring the effectiveness of current practices undertaken and results communicated. <b>Outcome</b> - Gaps in knowledge identified, Current BPM techniques evaluated , re evaluate BPM techniques in light of results of monitoring programs <b>Timeline- 1-4 years</b>	Achieves NBS Objectives: <b>2.2.1</b> <b>2.2.2</b> <b>2.2.3</b> <b>2.3.3</b>	<b>Biodiversity and natural icons:</b> <b>Reducing the impact of weeds/WoNS;</b> Community , skills knowledge, and engagement – increasing community knowledge and skills Increasing participation in nrm. Sustainable farm practices – improving knowledge and skills of land managers.	SA, TAS, NSW, QLD, VIC, WA, ACT.	Univ. of Adelaide – Jasmin Packer- <a href="mailto:j.packer@adelaide.edu.au">j.packer@adelaide.edu.au</a>  DowAgroSciences– Jim Phimster Greg Wells –Ph: (02) 9776 3421  State Farmers Federations Local Govt  DPI NBT State Blackberry Taskforces	



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<p><b>9. Biocontrol distribution with the community and monitoring of the efficacy of the biocontrol agents.</b></p> <p><b>Gap</b>-The blackberry leaf rust <u>Phragmidium violaceum</u>, which attacks the leaves, has been the most successful biocontrol so far. Although the rust has had an impact on some blackberry species, other species are resistant. To address this issue, additional rust strains are being released with community input. We need to continue funding for community groups to assist in dispersing the rust varieties across Australia, especially in Tasmania, East Gippsland in Victoria and Sthn Rivers area in NSW.</p> <p><b>Output</b>-50 targeted community releases of the Blackberry rust. Widespread distribution and monitoring of biocontrol agents,</p> <p><b>Outcome</b>-Reduction in vigour and spread of Blackberry. On ground monitoring of the efficacy of the new strains of Blackberry rust. Community members engaged in WONS management and empowered to reduce the impact of WONS locally, while achieving national priority actions. Stronger relationships between community members, Councils and NRM regions and community involvement in National WONS Strategy implementation.</p> <p><b>Timeline- 1-3 years</b></p>	<p>Achieves NBS</p> <p>Objectives:  <b>2.2.1</b>  <b>2.2.3</b>            2.3.4</p>	<p>Community , skills knowledge, and engagement – increasing community knowledge and skills</p> <p>Increasing participation in nrm</p> <p>Biodiversity and natural icons:            Reducing the impact of weeds/WoNS;</p> <p>Sustainable farm practices – improving knowledge and skills of land managers.</p>	<p>TAS, Victoria- East Gippsland, NSW (initially in NR, Hunter, HN, SM and Sthn Rivers CMA's) ACT , Tasmania Queensland,</p>	<p>Dr Robin Adair            Department of Primary Industries            Primary Industries Research            Victoria            PO Box 48, Frankston, Victoria 3199            Tel: +0397850123            Fax +0397852007            cell: 0431576427  <a href="mailto:robin.adair@dpi.vic.gov.au">robin.adair@dpi.vic.gov.au</a>            Partners- NRM regions, Local Governments; community members, VIC DPI, QLD DPIF, NSW DPI, NSW Department of Education and Training, WONS Management Groups, NSW DECC, Landcare groups, Blackberry Action Groups in Vic.</p>	<p>\$25,000: estimated cost for 50 targeted community releases of the Blackberry rust.</p>
<p><b>10. Suitable site restoration and rehabilitation to prevent recolonisation.</b></p> <p><b>Gap</b>-We need to understand how to properly restore ecosystems once blackberry is controlled. We also need to know how to encourage natural regeneration in an area to out compete blackberry</p>	<p>Achieves NBS</p> <p>Objectives:  <b>2.1.3</b>            2.2.2</p>	<p><b>Community , skills knowledge, and engagement – increasing community knowledge and skills</b></p>	<p>SA, TAS, NSW, QLD, VIC, WA, ACT.</p>	<p>Univ. of Wollongong            Fiona Ede_ Riparian weed specialist - DPI Victoria Ph : 03 9785 0111</p>	<p>\$700,000 per Catchment.</p>



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<p>reinvasion. We also need to work out the most cost effective rehabilitation methods across a range of land uses.</p> <p><b>Output</b>–Blackberry controlled in priority areas &amp; rehabilitation undertaken to prevent Blackberry re invasion.</p> <p><b>Outcome</b>- Healthy ecosystems dominated by desirable species</p> <p><b>Timeline</b>- 3-5 years</p>		<p>Increasing participation in nrm</p> <p><b>Biodiversity and natural icons:</b> Reducing the impact of weeds/WoNS; Increasing native habitat.</p>			
<p><b>11. ** Assessing and managing the Impact of Blackberry on native biodiversity.</b></p> <p><b>Gap</b>- We need to document the environmental impact of blackberry: how many rare and endangered species are threatened, and the ecological impacts. This will help in determining priorities for further work and justify current and future expenditure.</p> <p><b>Output</b>– Establish a prioritised/ ranked list of priority species at risk from blackberry invasions in Australia</p> <p><b>Outcome</b>- Knowledge of the biodiversity at risk from blackberry invasion in Australia. Blackberry control is targeted towards the conservation of the biodiversity most at risk. Funding can be directed to areas likely to have the maximum value for expenditure</p> <p><b>Timeline</b>- 1 year -18 months</p>	<p>Achieves NBS</p> <p>Objectives:</p> <p><b>2.1.2:</b></p> <p>2.1.1</p> <p>2.1.3</p> <p>2.2.1</p> <p>2.2.2</p> <p>2.2.3</p>	<p>Biodiversity and natural icons: Reducing the impact of weeds/WoNS</p> <p>Community , skills knowledge, and engagement – increasing community knowledge and skills</p>	National	<p>NSW DECC Dr. Paul Downey Pete Turner NBT</p>	\$184,000
<p><b>12. Roll out of the Blackberry Decision support tool (BDST).</b></p> <p><b>GAP</b>- As blackberry is so widespread in distribution we need to prioritise areas for blackberry control. A Decision support tool (DST)</p>	<p>Achieves NBS</p> <p>Objectives:</p> <p><b>2.1.1</b></p> <p>2.1.2</p>	<p><b>Community , skills knowledge, and engagement –</b> increasing community</p>	Sth QLD, E. VIC- Sth NSW, Tas, NSW, VIC, WA	<p>Vic DPI NBT State Blackberry Taskforces WRATs Regional NRM groups</p>	\$85,000p/a.



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<p>developed in 2007/08 can be used to determine the optimum goals and actions for blackberry management at a regional or sub- Catchment scale. This DST needs to be trialled by a regional or sub- Catchment group so it can be field tested and further improved if needed. Once field tested the BDST can be developed as an interactive tool on the web. This project will also provide assistance to develop management programs for high priority sites and assist them to find appropriate financial sources to fund and implement blackberry management for priority sites identified from using the BDST</p> <p><b>Output-</b> Map at a regional /or sub- Catchment scale where goals for blackberry management are determined in terms of prevention, eradication, containment, reduction, suppression, asset protection.etc. BDST field tested /triallyed and refined from feedback received on its use. Once refined the BDST can be developed as an interactive tool on the web.</p> <p><b>Outcome-</b>A Regional group decides and maps the most appropriate blackberry management goals for their area and implements those goals.            A published decision making system for blackberry management prioritisation.            A strategic process for prioritising Blackberry management actions. A process for monitoring changes.</p> <p><b>Timeline-1 year -18 months</b></p>	<p>2.2.1 2.2.2 <b>2.2.3</b> <b>2.3.3</b></p>	<p>knowledge and skills</p> <p><b>Biodiversity and natural icons: Reducing the impact of weeds/WoNS;</b></p>		<p>Catchment groups Landcare groups Dr. John Virtue –SA</p>	

**\*\*Previous project application available**

**Acronyms used**

CWM- Community Weed Model (Victoria



# *Weeds of National Significance*

## National Blackberry Program

CA= – Condamine Alalinace NRM regions – Sth QLD

WRAT=-Weed Risk Assessment Team

QMDC=- Queensland Murray Darling committee

NRM=Natural Resource Management

SDRC=- Southern Downs Regional Council (QLD)

DPI=- Department Of Primary Industries

NBS=National Blackberry Strategy (

SA = - South Australia

NBT=- =National Blackberry Taskforce

NSW DECC= NSW Dept Environment & Climate Change

WONS= Weeds of National Significance

BDST=Blackberry Decision support tool

BPM= -Best Practice Management