

RECOVERY TEAM ANNUAL REPORT THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM				
Recovery Team	Geraldton District Threatened Flora and Ecological Communities Recovery Team			
Reporting Period	DATE FROM:	1 January 2014	DATE TO:	31 December 2014
Current membership				
	Member	Representing		
Chair	David Rose, District Manager, Geraldton District	Parks and Wildlife		
Exec Officer	Alanna Chant, Conservation Officer (Flora) Geraldton District	Parks and Wildlife		
members	Kiera Foster, Conservation Officer (Flora) Geraldton District	Parks and Wildlife		
	Janet Newell, Conservation Officer (Flora) Geraldton District	Parks and Wildlife		
	Andrew Brown, Co-ordinator – Threatened Flora, Species and Communities Branch	Parks and Wildlife		
	Val English, Principal Ecologist, Species and Communities Branch	Parks and Wildlife		
	Andrew Crawford, Research Scientist, TFSC	Parks and Wildlife		
	Leonie Monks, Research Scientist	Parks and Wildlife		
	Donna Rayner	Mingenew – Dongara Herbarium Group		
	Anna Sutherland, Senior Environmental Officer	Main Roads WA		
	Alison Pearce, Graduate Environment Officer	Main Roads WA		
	John Stevens	Brookfield Rail		
	Jenna Brooker	Geraldton Herbarium Group		
	Tony Brooker	Geraldton Herbarium Group		



	Beth Teale	Geraldton Herbarium Group
	Robin Simkin	Kalbarri Herbarium
	Joshua Foster, Senior Ecologist	GHD
	Alice James	Durack Institute
	Volker Stager	Durack Institute
	Greg Burrows	NACC
	Wendy Payne	Geraldton Community Nursery
	Gail Reed	Dongara area
	Robyn Nicolas	City of Greater Geraldton
	Bronti Grant	City of Greater Geraldton

Dates meetings were held	Thursday 30 th October 2014
<p>Highlights of achievements for the previous 12 months suitable for publication in <i>WATSNU</i> and contribution to DPaW annual report. Provide 1-2 paragraphs summarising total number of new populations located, surveys completed, list major management actions etc</p>	<p>Two flora taxa (<i>Androcalva bivillosa</i> and <i>Leucopogon nitidus</i>) were successfully nominated for Threatened Flora listing.</p> <p>One Threatened Flora taxon (<i>Stachystemon nematophorus</i>) was successfully nominated to be removed from the Threatened Flora list.</p> <p>A successful Remote Regions project was implemented which resulted in construction of feral goat proof fencing for two areas of the Critically Endangered <i>Acacia unguicula</i> at Mount Singleton in the rangelands.</p> <p>A comprehensive census of all populations of <i>Darwinia masonii</i> (TPFL 1 – 10) was completed. No new populations were recorded. The total number of mature <i>D masonii</i> plants recorded during this census was 19,132.</p> <p>Searches were undertaken within two broad areas of potential habitat for <i>Lepidosperma gibsonii</i>. Four new populations and three subpopulations were recorded.</p> <p>A previously cleared and bituminised tennis court adjoining a population of the Critically Endangered <i>Dasymalla axillaris</i> was rehabilitated, through removal of blue metal, bitumen surface, deep ripping and brushing with habitat species across the surface. The rehabilitation works appear to have resulted in several new recruits of <i>Dasymalla axillaris</i></p> <p>A new population of <i>Gyrostemon reticulatus</i> was recorded within a recent fire scar area. Previous to this no living plants of this species were known to exist.</p> <p>A prescribed burn at a previously extinct population of <i>Stylidium amabile</i> was found to have resulted in the recruitment of around eight new seedlings of this DRF.</p>



Erosion and habitat restoration works were carried out at a population of the Critically Endangered *Pterostylis sinuata* and the Vulnerable *Wurmbea tubulosa*. This included weed control, ripping of compacted areas and sand bagging to slow water flow within an erosion gully. This has been successful in causing some silting up of the gully and regeneration of native plants.

Rehabilitation works and resspreading of topsoil at an old gravel pit which adjoins a population *Androcalva bivillosa* resulted in recruitment of 50 new plants of this DRF.

A Commonwealth Government 20 Million Trees Program funding application was successful and almost \$40 000 has been received to undertake habitat restoration work for the Critically Endangered *Grevillea bracteosa* subsp *howatharra*.

List of recovery actions coordinated by Recovery Team

Detail under the headings below the recovery actions undertaken during the reporting period. Provide separate detail for each species/community against each action. For species/community-specific recovery teams, the generic activity types below can be replaced by the specific recovery actions from the recovery plan where appropriate.

Monitoring and survey of existing and new populations/ occurrences, targeted surveys, critical habitat mapped etc.

152 populations and subpopulations of 33 DRF and 10 populations of 8 Priority Flora have been surveyed and monitored during 2015. In addition 11 new populations/subpopulations of 4 DRF and 22 new populations of were 6 Priority flora were located and surveyed.

This **INFORMATION** summarised in the table below:

Taxon	Populations Surveyed and Monitored
<i>Acacia imitans</i>	1
<i>Acacia unguicula</i>	1, 3
<i>Androcalva bivillosa</i>	1, 2, 3, 4, 5, 6, 7 and 8
<i>Astroloma inopinata</i> (P1)	1 new population
<i>Blackallia nudiflora</i>	4 new
<i>Caladenia bryceana</i> subsp. <i>cracens</i>	5, 13, 15,16 Further survey for GMA garnet found non new pops
<i>Caladenia elegans</i>	1,2,5a &b,6,7a, b & c,10a &b,12,14a & b,15,18 plus 1 new
<i>Caladenia hoffmanii</i>	3a&b, 4, 5b, 9a,10,14
<i>Caladenia wanosa</i>	6, 7a &b, 11a &b, 16a,b,c, 17, 18, 19, 20a&b
<i>Conostylis dielsii</i> subsp. <i>teres</i>	1a & b 2a b and c, 3, 5, 7 & 10
<i>Conostylis micrantha</i>	1, 6, 9 & 11
<i>Darwinia masonii</i>	1,2,3,4, 5, 6, 7, 8, 9, 10 Condition monitoring within quadrats. A broad



	regional survey located no new pops.
<i>Dasymalla axillaris</i>	4, 5a, b & c, 8a & b, 9a & b
<i>Drakaea concolor</i>	2a & b and 7
<i>Drummondita ericoides</i>	5
<i>Eremophila nivea</i>	Translocated pop 11 was monitored
<i>Eremophila rostrata</i> subsp. <i>trifida</i>	1, 3
<i>Eucalyptus beardiana</i>	Pop 5, plus further survey on Nerren Nerren located no new pops.
<i>Eucalyptus cuprea</i>	2a, b & c, 4, 5, 6, 7a, 8, 9, 11a & b, 12a, b, c & d, 13a & b
<i>Eucalyptus crucis</i> subsp. <i>praecipua</i>	Janet?
<i>Eucalyptus synandra</i>	4 a, b & c plus 1 new
<i>Grevillea bracteosa</i> subsp. <i>howatharra</i>	1c & e, 3a & b, 5
<i>Grevillea christineae</i>	6a, b, 7
<i>Grevillea fililoba</i> (P1)	1, 2, 3 & 4
<i>Grevillea phanerophlebia</i>	3
<i>Gyrostemon reticulatus</i>	1, 2a & b, 4, 6 & 7
<i>Hemigenia pimefolia</i> (P1)	1
<i>Hybanthus cymulosus</i>	6, 8 pop 9 deleted due to correct ID determination
<i>Lechenaultia chlorantha</i>	1
<i>Lechenaultia longiloba</i> (P4)	1, 2, 3 and 2 new
<i>Lepidosperma gibsonii</i>	Condition monitoring within quadrats. 10, 11, 12a and 12b plus 4 new pops and 3 subpops
<i>Lepidosperma</i> s. <i>Blue Hills</i> (P1)	5 new populations
<i>Leucopogon marginatus</i>	8, 9
<i>Leucopogon navicularis</i> (P1)	1 pus 3 new pops
<i>Leucopogon nitidus</i>	1
<i>Pterostylis sinuata</i>	2, 3, 4, 6a & b, 7a & b
<i>Schoenia filifolia</i> subsp. <i>subulifolia</i>	1 & 4
<i>Serichonus gracilipes</i>	2 new
<i>Stylidium amabile</i>	1, 2
<i>Stylidium wilroyense</i>	1
<i>Verticordia spicata</i> subsp. <i>squamosa</i>	4
<i>Wurmbea tubulosa</i>	3, 4, 6a, 7, 8, 11 plus 1 new

<p>Threatened Ecological and Priority Ecological Communities</p>	<p>Two occurrences of the Priority 1 ecological community – Shrublands of the Northampton Area, dominated by <i>Melaleuca</i> species over exposed Kockatea Shale were surveyed.</p> <p>One occurrence of the P1 PEC – Coastal sands dominated by <i>Acacia rostellifera</i>, <i>Eucalyptus oraria</i> and <i>Eucalyptus obtusiflora</i> was surveyed.</p> <p>Parks and Wildlife liaised with the Batavia Coast Marine Institute in regard to a project for a Marine Science student to map occurrences of the P3 PEC <i>Posidonia australis</i> complex seagrass meadows assemblage.</p>
<p>Threat amelioration eg weed control/mapping, fencing/ repairs, fire management disease management, feral/ introduced animal control, installation of roadside markers</p>	<p>Weed control was carried out at 1 population of <i>Grevillea bracteosa</i> subsp. <i>howatharra</i>, 1 population of <i>Schoenia filifolia</i> subsp. <i>subulifolia</i>, at 3 populations of <i>Caladenia elegans</i>, 3 populations of <i>Pterostylis sinuata</i>, 1 population of <i>Caladenia hoffmanii</i>, 1 population of <i>Wurmbea tubulosa</i> and 1 population of <i>Gyrostemon reticulatus</i>.</p> <p>A shade cloth weed barrier was installed to protect a population of <i>Caladenia elegans</i> and <i>Pterostylis sinuata</i>, to reduce entry of wind blown weed seeds to the site.</p> <p>Two populations of <i>Acacia unguicula</i> were fenced to exclude feral goats. Two subpopulations of <i>Grevillea bracteosa</i> subsp. <i>howatharra</i> were fenced to exclude livestock on private property.</p> <p>Fencing was installed in preparation for translocations of <i>Eucalyptus cuprea</i> and <i>Eremophila rostrata</i> subsp. <i>trifida</i>.</p> <p>Rabbit and feral pig baiting was carried out to protect 1 population of <i>Grevillea bracteosa</i> subsp. <i>howatharra</i>, 2 populations of <i>Caladenia hoffmanii</i> 2 sub populations of <i>Drummondita ericoides</i>, and several populations of <i>Leucopogon marginatus</i>, <i>Conostylis micrantha</i> and <i>Conostylis dielsii</i> subsp. <i>terres</i>.</p> <p>Seed was collected from 1 population of <i>Eremophila rostrata</i> subsp. <i>trifida</i>, 2 subpopulations of <i>Grevillea bracteosa</i> subsp. <i>howatharra</i>, 3 populations of <i>Androcalva bivillosa</i> and 1 population of <i>Grevillea phanerophlebia</i> which is in storage at the TFSC.</p> <p>Roadside markers were installed at 2 populations of <i>Androcalva bivillosa</i>, 2 populations of <i>Dasymalla axillaris</i>, 2 populations of <i>Lechenaultia longiloba</i> and one population of <i>Gyrostemon reticulatus</i>.</p>
<p>Conservation and research e.g. fire research, translocation, ex-situ conservation, revegetation/rehabilitation etc.</p>	<p>A fire research trial was carried out at an extinct population of <i>Stylidium amabile</i>. Following the burn around 8 new recruits were found in an area where all adult plants had died several years ago.</p> <p>Translocations which will be implemented in 2015 were in the planning stages during 2014. This included site selection and preparation of approved Translocation Proposals. This included <i>Eremophila nivea</i>, <i>Eremophila rostrata</i> subsp. <i>trifida</i>, <i>Acacia unguicula</i>, <i>Eucalyptus cuprea</i>, and <i>Schoenia filifolia</i> subsp. <i>subulifolia</i>.</p> <p>Cuttings were taken from 20 individual plants of <i>Androcalva bivillosa</i> prior</p>



	<p>to a road widening project. These are being raised at the Kings Park Botanic Garden nursery. Seed was also collected from plants in the nursery which were raised from cuttings taken the previous year.</p> <p>Genotypes of <i>Lepidosperma gibsonii</i> clones which were collected in 2008 from populations 3a and 4a prior to these areas being cleared for mining are being maintained in a nursery.</p> <p>Genotypes of <i>Darwinia masonii</i> clones which were collected in 2008 from populations 2 and 3 prior to these areas being cleared for mining are being maintained in a nursery.</p> <p>For <i>Darwinia masonii</i>, boundary and numbers of populations were reviewed in light of recent of a genetic survey, in which all populations were found to show unique chloroplast haplotypes, suggesting that seed dispersal is very limited and has been for considerable time. As a result the number of populations has increased from 7 to 10.</p>
<p>Liaison, education/provision of advice e.g. promotional material inc newspaper/ magazine articles, liaison with land managers/ owners, input to impact assessment, development of specific management plans, volunteers assisting with surveys/ monitoring etc.</p>	<p>Significant liaison has been undertaken as part of the Mt Gibson Conservation Project, with stakeholders including Mt Gibson Mining, Extension Hill Pty Ltd, Office of the EPA, Australian Wildlife Conservancy, Bush Heritage Australia and Ninghan Station managers.</p> <p>Landholder notification letter delivery and liaison has taken place with landholders for populations of <i>Grevillea bracteosa</i> subsp. <i>howatharra</i> (2 landholders), <i>Leucopogon marginatus</i> (2 landholders) <i>Caladenia elegans</i> and <i>Wurmbea tubulosa</i> (1 landholder) and <i>Gyrostemon reticulatus</i> (2 landholders).</p> <p>14 volunteers have been assisting with flora conservation activities including management of Herbarium collections, field survey and monitoring.</p> <p>Durack Institute students have been involved in on ground recovery actions including restoration planning, seed collection, weed control, fencing and survey.</p> <p>On site meetings and liaison has taken place with stake holders in relation to management of Threatened Flora including MRWA, Brookfield Rail, Australian Wildlife Conservancy, Bush Heritage, Northern Agriculture Catchments Council, Shire of Northampton, Shire of Perenjori and the City of Greater Geraldton.</p> <p>Liaison with MRWA in relation to impending road work projects has resulted in a commitment to undertaken erosion control works (\$40,000) at a site of three DRF orchids (<i>Caladenia elegans</i>, <i>Pterostylis sinuate</i> and <i>Caladenia hoffmanii</i>) and commitment to funding translocations for <i>Androcalva bivillosa</i>.</p>
<p>Land use/tenure changes e.g. covenants, acquisitions, changes in land use or listed purpose etc.</p>	<p>No relevant tenure changes have occurred during 2014.</p> <p>Several areas of privately owned land have been fenced for the protection of <i>Grevillea bracteosa</i> subsp. <i>howatharra</i> and <i>Eucalyptus cuprea</i> and will no longer be used for agricultural production.</p>



<p>Conservation status reviews for taxa/TECs e.g. nominations for additions, deletions or change in status to state threatened or priority lists; changes to EPBC list</p>	<p>The conservation status of several Priority Flora is in the process of being reviewed, including <i>Grevillea fililoba</i>, <i>Lechenaultia longiloba</i>, <i>Hemigenia pimefolia</i> and <i>Ptilotus chortophytus</i>.</p>
<p>Recovery plans e.g. recovery plans/ IRPs drafted, approved, reviewed or updated</p>	<p>Interim Recovery Plans were prepared for <i>Eucalyptus cuprea</i> and <i>Eremophila nivea</i> and have been approved.</p> <p>Preparation of an Interim Recovery Plan for <i>Androcalva bivillosa</i> has commenced.</p> <p>A review of the relevance and effectiveness of the IRP for <i>Darwinia masonii</i> was completed.</p> <p>Drafting of a full Recovery Plan for <i>Darwinia masonii</i> commenced, with significant liaison between Parks and Wildlife and stakeholders.</p> <p>A review of the relevance and effectiveness of the IRP for <i>Lepidosperma gibsonii</i> was completed.</p> <p>Drafting of a full Recovery Plan for <i>Lepidosperma gibsonii</i> commenced, with significant liaison between Parks and Wildlife and stakeholders.</p>
<p>Other actions completed</p>	<p>Potential new <i>Eremophila</i> and <i>Banksia</i> taxa found in the District with survey scheduled for 2015.</p>