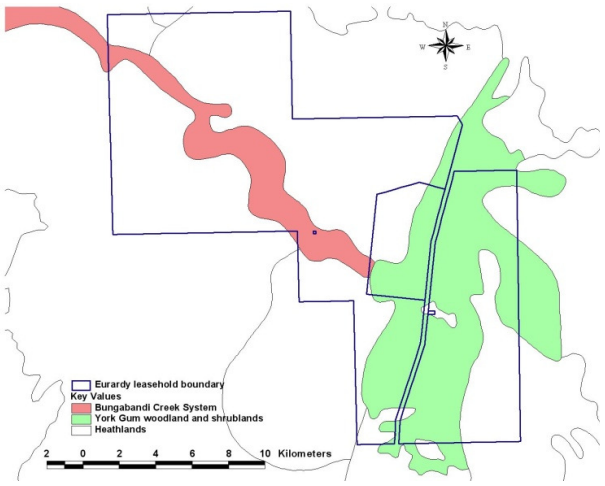
Eurardy Reserve Scorecard

August 2011



Key Facts
Date acquired: 2005 **Size**: 30, 050 ha

Anchor Region: Southwest Botanical Province; Lower Murchison River Node.

IBRA Bioregion; Geraldton Sand-plain

Traditional Owners: Nanda people

Key Staff: Reserve Managers Matt Warnock & Elizabeth Lescheid; Ecologist Matt Appleby

Key Partners: Department of Environment and Conservation, Wildflower Society of Western Australian, Edith Cowan University, Conservation Council WA, neighbours

Ecosystem Diversity:Protects endemic and significant species of vascular plants, five of which are Declared Rare Flora in WA and are also nationally threatened. 37 plant taxa are listed as a Priority for conservation in Western Australia. Several of the vegetation communities are poorly represented in the national reserve system, in particular Jam (*Acacia acuminata*) shrublands and York Gum (*Eucalyptus loxophleba*) woodlands.The reserve protects over 570 plant species, 120 birds, 14 native mammals and at least 19 reptile species.

Management intent: IUCN category II

Goals& Objectives: By 2020, the drainage-line in the Bungabandi Creek System has stabilized; By 2020, the York gum woodland support healthy old-growth York Gum trees that provide habitat for key hollow-dwelling species; By 2020, the Heathlands support a broad range of age-classes of which at least 10% of the total target area is long-unburnt; By 2020, populations of threatened spider orchids have increased from the 2000 baseline; By 2020, the populations of the vulnerable fauna have stabilized or increased above the 2006 baseline.

Management strategies: Manage total grazing pressure; Control predation by feral animals; Control invasive weeds; Manage fire to protect the long-unburnt patches of vegetation; Control erosion in the Bungabandi Creek System.

Condition Assessment

Key Conservation Targets	Status & Trend	Confidence Level
Bungabandi Creek System	↗	
York Gum woodlands & tall shrublands on red clay soils	↗	
Heathlands	↗	
Threatened spider orchids	–	
Vulnerable fauna	?	

Key Ecological Processes	Status & Trend	Confidence Level
Ecological function	↗	
Viability of key species	↗	
Functional communities	↗	
Natural disturbance regimes	↗	
Ecosystem resilience	–	

Key Threats	Status & Trend	Persistence
Fire	↗	$
Feral herbivores	↗	$
Feral predators	–	$
Weeds	–	$
Erosion	↗	$
Livestock	↑	✓

Commentary

These ratings are a result from an ecological outcomes review of the first 6 years of Bush Heritage's ownership and conservation management of Eurardy Reserve. Overall there has been considerable improvement in the condition, functioning and viability of ecosystems and the communities and species that they support especially the birds. The first phase of management has successfully addressed several key threats to biodiversity. However, recovery of ecosystems from historical land use is likely to be a slow process given the reserve's location on the northern-most edge of the wheat-belt.

Scorecard Description

Key Conservation Targets are The ecological entities: communities, species or species assemblages, within the landscape which Bush Heritage has chosen to value more highly than other ecological entities; they are the basis for setting goals, carrying out conservation actions, and measuring conservation effectiveness. Each property has around 4-6 Targets. The Targets allow prioritisation of effort and resources. The scorecard shows the latest Status and recent Trend in the Viability of each Target. The ratings are derived from measures against a number of Indicators which define the key ecological attributes of the Target. Further details of the key ecological attributes, indicators and measures can be found in the Target Viability Table within Miradi. The Status and Trend symbols are defined below. The Confidence rating gives an indication of the extent of data available from which the ratings are derived.

Status Rating	Trend indicator	Confidence Level
Very Good	Strong increase / improvement	Very high
Good	Mild increase / improvement	High
Fair	Flat	Moderate
Poor	Mild decrease / degrading	Low
Uncertain	Strong decrease / rapidly degrading	Very low
	Unknown / uncertain	

Key Ecological Processes measure progress against the goals defined by the Ecological Outcomes Monitoring program.

- Maintain or restore **ecological function**. This goal refers to the biophysical processes that regulate the stocks and flows of water, nutrients and energy that sustain ecosystem productivity. Indicators for this process monitor ecological resource conservation, maintenance of refugia and source areas, and change in hydrological health.
- Maintain or restore the **viability (and evolutionary potential) of key species**. This goal recognizes that the long-term persistence of native species without human intervention in demographic processes (e.g., translocation, ex-situ conservation) is a key conservation objective but places greater emphasis on threatened, keystone or locally endemic species. Indicators for this process monitor population demographics such as densities and structure
- Maintain or restore **functionally integrated communities**. This goal relates to managing the biophysical habitat to support community assemblages and trophic interactions that enable species to fulfil their functional roles. Indicators for this process monitor factors such as carrying capacity and changes in vegetation structure.
- Maintain or restore **natural disturbance regimes**. This goal refers to the frequency, intensity, duration, spatial heterogeneity and magnitude of natural disturbance events. Indicators for this process monitor factors such as fire regimes and hydrological cycles.
- Increase **ecosystem resilience and resistance**. Resilience refers to the ability of an ecosystem to recover without human assistance following disturbances or shocks (natural or anthropogenic). Resistance refers to the ability of an ecosystem to withstand disturbances or shocks (natural or anthropogenic). Indicators for this process monitor factors such as primary productivity.

The Scorecard shows the latest Status and recent Trend for each process, using the same symbols as above. The ratings are derived from analysis of measures taken during on-site surveys at pre-defined EOM sites against a range of indicators. The raw data is recorded against each site in the Properties Database. The Status & Trend ratings represent a judgement made of relevant measures across all EOM sites on the property, irrespective of which Key Conservation Target they might be located in. It therefore gives a whole-of-property assessment, and is also comparable across properties.

Key Threats are identified for each target, and are the focus of management actions. A rating system is used to assess each threat in terms of its scope, severity and permanence to derive an overall Status rating. The Trend rating is a judgement on the degree of change since the last status rating. Three threats (Fire, feral animals, and weeds) occur on almost all properties and the ratings are therefore comparable across properties. In addition, a few other key threats are listed for each property, along with any major threats that have been removed or controlled through Bush Heritage's actions. The Persistence rating gives an indication of the on-going effort required to manage the threat.

Status Rating	Trend indicator	Persistence Level
Low	Strong increase / improvement	✓ Permanently removed
Medium	Mild increase / improvement	~ Ongoing vigilance required
High	Flat	$ Ongoing investment required
Very High	Mild decrease / degrading	
Uncertain	Strong decrease / rapidly degrading	
	? Unknown / uncertain	