

Key Facts

Date acquired: 2007 **Size:** 43,500 ha
IBRA Bioregion: Einasleigh Uplands / Wet Tropics
Traditional Owners: Jirrbal and Wurrungu
Key Staff: Reserve Managers: Paul Hales, Leanne Hales; Healthy Landscape Manager: Steve Heggie; Ecologist: Murray Haseler
Key Partners: Qld Govt (DEEDI, Parks)
Ecosystem Diversity: Yourka protects a corridor of largely intact bush from the Wet Tropics World Heritage area to the riparian forests along the Herbert River. Yourka contributes 4,300 ha of riparian and alluvial forests to the reserve estate. These ecosystems are poorly reserved and typically subject to extractive or destructive activities elsewhere, and are vulnerable to plant invasions. The headwaters of the creeks drain moist eucalypt forests in the eastern hills and run westward through a range of dry eucalypt and bloodwood woodlands. The creeks feature some large natural billabongs. A new Regional Ecosystem (a low shrubby woodland) was described from Yourka. Two threatened species, the red goshawk and the Mareeba rock-wallaby, have been recorded on Yourka, together with over 140 bird, 17 other native mammal and nearly 300 plant species.

Goals and Objectives

Management Intent: IUCN Category IV
Conservation Objectives: Maintain the extent and improve the condition of moist forests, dry woodlands and riparian forests. Contain and reduce the area infested by Siam weed *Chromolaena odorata*, lantana *Lantana camara* and grader grass *Themeda quadrivalvis*. Maintain or promote a vegetation structure that supports a diverse and abundant assemblage of disturbance-sensitive birds, mammals and reptiles.
Key Management Strategies: Cessation of grazing and exclusion of livestock; control of key invasive weeds – Siam weed, lantana and grader grass; fire management to reduce extent and intensity of uncontrolled fire, reduce weeds, and restore an understorey of native grasses and a complex and heterogeneous shrub layer; and soil erosion control, mainly around billabongs, dams and roads.

Key Conservation Targets	Status & Trend	Confidence Level
Riparian forests and alluvial flats		
Dry forests and woodlands		
Moist eucalypt forests		

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







Key Threats * (* relative to time of acquisition)	Status & Trend	Persistence
Livestock grazing and cropping		✓
Feral herbivores: stray cattle		\$
Feral herbivores: pigs		~
Weeds: Siam weed		\$\$
Weeds: lantana		\$
Weeds: grader grass		\$
Soil erosion		\$

Commentary

The repair or establishment of roads and tracks, boundary fences, workshop and visitor accommodation has been a focus of the first five years. Siam weed was present on Yourka prior to purchase: control using herbicide and fire has reduced the extent and number of infestations in the lower valleys but increased search effort has revealed more infestations in the upper catchments. Siam weed control and monitoring will require ongoing investment. Fire management aims to modify vegetation structure in the dry forests and woodlands to benefit small birds and other fauna, and assist Siam weed control. Disturbance-sensitive and small passerine birds are slowly increasing in the riparian and moist forests but not in the dry forests and woodlands as anticipated. Re-routing tracks and bank stabilization has improved the integrity of billabongs. Track maintenance and summer burning to aid Siam weed control may be increasing grader grass. Management and monitoring of the interaction between fire, Siam weed, grader grass, vegetation structure and woodland birds requires further scrutiny.

Scorecard Description

Key Conservation Targets are the ecological entities (communities, species or species assemblages) within the landscape upon which Bush Heritage has chosen to focus conservation effort; they are the basis for goals, carrying out conservation actions, and measuring conservation effectiveness. Each property has around 4-6 targets. The Targets allow prioritization of effort and resources. The scorecard shows the latest assessment of the Status (condition) and Trend (change in condition) of each Target. The ratings are derived from measures against a number of Indicators which define the Viability of 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 level reflects the extent and reliability of data available from which the ratings are derived.










Status Rating	Trend	Confidence Level
Excellent 	Strong increase / improvement 	Very High 
Good 	Mild Increase / improvement 	High 
Fair 	Steady 	Medium 
Poor 	Mild decrease / degrading 	Low 
Uncertain 	Unknown/Uncertain 	Very Low 

Key Ecological Processes measures 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 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 abundance, density and population 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 fulfill 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**. Resilience refers to the ability of an ecosystem to recover following disturbance or shocks (natural or anthropogenic). Indicators for this process monitor time and extent of recovery in factors such as primary productivity, vegetation structure and composition, and faunal assemblages.

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 judgment 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 for the property as a whole, 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 judgment on the degree of change since the last status rating. The key ongoing threats that are the focus of management activities are listed for each property, along with any major threats that have been removed or controlled through Bush Heritage's actions. The removed threats were often the motivation for property acquisition (e.g. land clearing, pastoralism, logging) and the benefits from these actions accrue in perpetuity. The Persistence rating gives an indication of the on-going effort required to manage the threat.

Status Rating	Trend	Persistence level
Low 	Threat reduced significantly 	Permanently removed ✓
Medium 	Threat reduced moderately 	Ongoing vigilance required ~
High 	No change 	Ongoing investment required \$
Very High 	Threat increasing moderately 	Increased investment required \$\$
Uncertain 	Unknown/Uncertain 