

Eva Downs Swamp

Location and Description

Eva Downs Swamp is a large, seasonal flood out area on the Barkly Tableland, about 180 km north-east of Tennant Creek. The Swamp is unusual amongst the Barkly Lakes in that it is inundated relatively frequently and much of the inner basin (~100 km²) of the Swamp is flooded in most wet seasons. During periods of major flooding (such as 1993 and 2001), the Swamp may reach more than 150 km² and connects with Tarrabool Lake in the south. The swamp is dominated by tall tussock grassland and a shrubland of lignum and bluebush. Large patches of open woodland dominated by river cooba are present in southern and central parts of the swamp.

Tenure and Land Use

Eva Downs Swamp is pastoral leasehold land and lies entirely within one pastoral property (Eva Downs). Pastoral grazing of cattle on native pastures is the main land use within the Site.

Significance Rating

International Significance

Ecological Values

During periods of extensive flooding, Eva Downs Swamp comprises a large body of water and a significant area of flooded shrubland and woodland habitat. The swamp supports large numbers of waterbirds, with over 30,000 reported in 2001, and is regionally important for breeding by colonial species that favour shrubby or wooded wetlands, such as Great Egret and Straw-necked Ibis. Sub-humid wetlands such as Eva Downs Swamp are likely to become increasingly important in the coming decades if global climate change drives even minor rises in sea level, and saltwater inundation occurs on the vast floodplain wetlands of coastal northern Australia.

Management Issues

The exotic shrub *Parkinsonia aculeata* is not currently present in the swamp, but does occur in the surrounding landscape, and if left unchecked it could potentially affect the values of the swamp. There have been few biological surveys of the swamp and knowledge of other conservation values is poor.

Condition

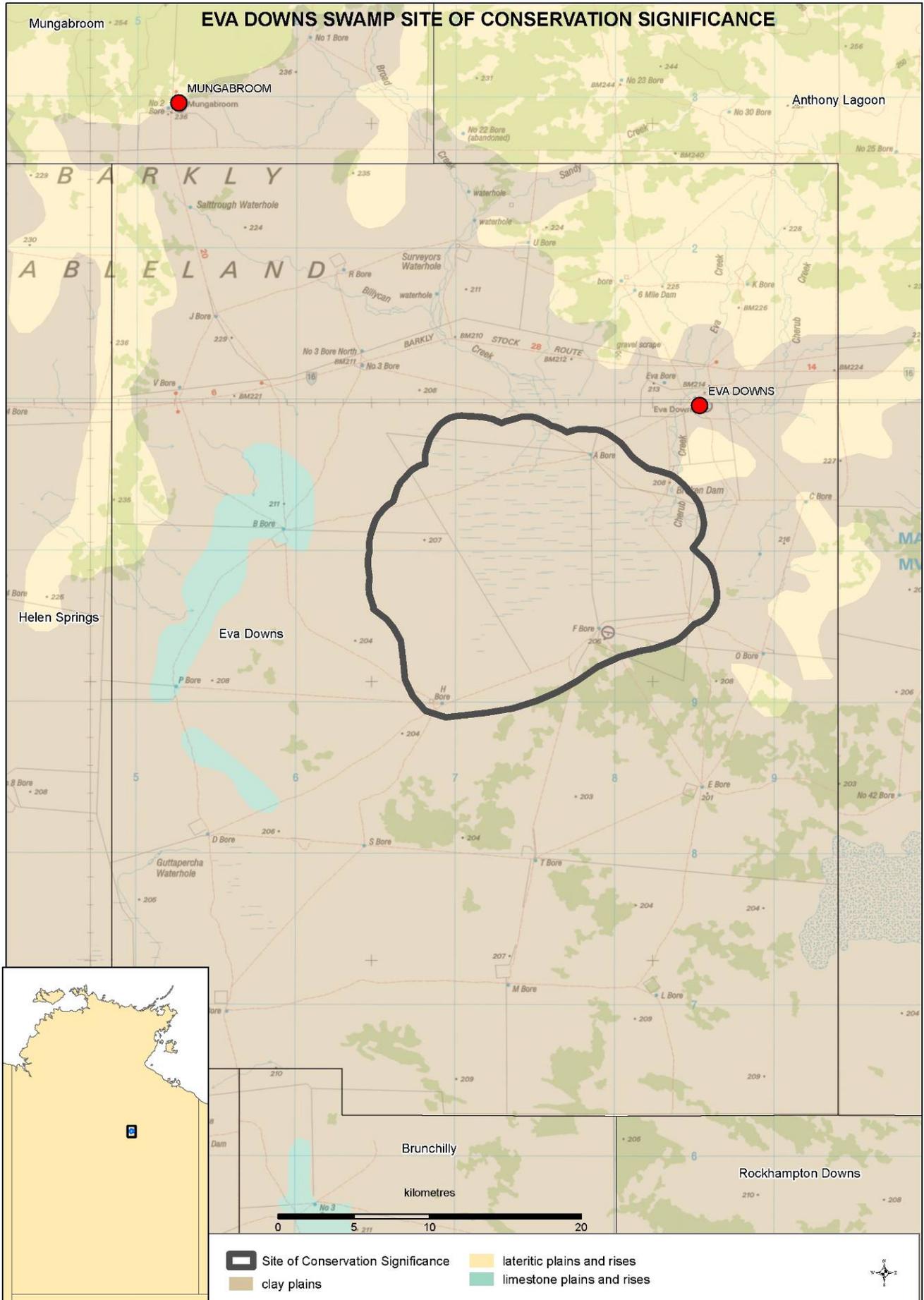
No information has been located on the condition of the swamp or its vegetation.



Current Conservation Initiatives

Surveys of waterbirds are conducted opportunistically by Wetlands International after major flood events.

EVA DOWNS SWAMP - SITE OF CONSERVATION SIGNIFICANCE



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	Latitude/Longitude	18° 7' South, 134° 44' East (at centre)
	Bioregion	Mitchell Grass Downs
	Description	<p>This site is dominated by clay plains with few obvious geomorphological features except for the complex braided channel patterns in the north-east where the Cherub Creek feeds into the Swamp. The swamp most frequently occupies an inner basin of about 100 km² but the boundary of this site has been delineated based on the maximum flooded area of the swamp with a 2 km buffer, and encompasses an area of 318 km². Inundation of the swamp is variable but major flooding occurs perhaps once every 5-10 years (1993, 2001 and 2006) with moderate flooding more frequently.</p> <p>Other large wetlands on the Barkly Tableland, including the Lake Sylvester system, Tarrabool Lake and Lake Woods, are also recognised as sites of high conservation significance in the NT.</p>
THREATENED SPECIES	Significance Rating	Not Significant
	Threatened plants and animals (Listings at National/NT level CR - Critically Endangered, EN - Endangered, VU - Vulnerable, NT - Near Threatened, LC - Least Concern, DD - Data Deficient)	No threatened species are reported from this site, but survey effort has not been adequate.
ENDEMIC SPECIES	Significance Rating	Not Significant
	Notes	The site contains a suite of plant and animal species characteristic of the blacksoil grasslands of subhumid north Australia.
WILDLIFE AGGREGATIONS	Significance Rating	International Significance
	Marine turtles	Not applicable
	Seabirds	No major aggregations recorded
	Waterbirds	<p>Total numbers of waterbirds: A maximum of 32,000 waterbirds comprising 36 species is recorded at this site from an aerial survey in June 2001 (Wetlands International unpubl.). The real number of waterbirds is likely to be at least twice this number if the usual undercounting factor in aerial surveys is taken into account (Costelloe et. al. 2004; Morton <i>et al.</i> 1990). Similar numbers of waterbirds are likely to occur during other comparable flood events.</p> <p>Counts of individual species: Maximum counts of Great Egrets (3000) in 2002 and 2006 (Wetlands International unpubl.) are nationally significant (>1% Oceania population; Wetlands International 2006). The Freckled Duck, an uncommon and Near Threatened species in the NT, is recorded in small numbers at this site (Jaensch 2003b).</p> <p>Breeding records: Woodland and lignum shrubland at this site support large aggregations of breeding waterbirds. Notable breeding records include: 1500 pairs of Great Egret; 1800 pairs of Straw-necked Ibis; and 500 pairs of Glossy Ibis (Wetlands International unpubl.). Other colonial breeding species recorded include Little Black and Little Pied Cormorants, and Nankeen Night Herons.</p>
	Shorebirds	Although suitable habitat for shorebirds is available at Eva Downs Swamp, large numbers have not been recorded to date, most likely due to a lack of survey effort during appropriate times.
	Other aggregations	None known
WETLANDS	Significance Rating	International Significance
	Ramsar criteria met	Although no formal assessment has been conducted to date, Eva Downs Swamp comfortably meets at least four criteria (criterion 1: rare or unique example of a wetland type; criterion 4: provides refuge or supports a critical life-cycle stage for important species; criterion 5: important wildlife aggregation site with >20,000 waterbirds; and criterion 6: regularly supports >1% of the individuals in a population) for listing as a wetland of international importance under the Ramsar Convention.
	DIWA criteria met	Eva Downs Swamp is listed as a wetland of national significance on the Directory of Important Wetlands in Australia (DIWA: NT010). The site meets criteria 1, 2 and 3 and includes DIWA wetland types: B6, B10, B13 and B14.

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	Notes	<p>The combined Barkly Lakes (Eva Downs Swamp, Lake Sylvester and Tarabool Lake system) have been nominated as a national High Conservation Value Aquatic Ecosystem (the finalised list of HCVAE will replace the DIWA list), and form a priority HCVAE in the Caring for our Country Business Plan 2009-2010 (Commonwealth of Australia 2008).</p> <p>Eva Downs Swamp rarely holds water for a full 12 months and permanent waterholes appear to be absent. Water in the swamp may be clear where there is dense submerged vegetation, otherwise it is mostly milky white in colour. The swamp is a good example of its type, regularly holding water in a region dominated by irregularly inundated wetlands (DIWA) and supports one of the largest stands of <i>Acacia stenophylla</i> in the Barkly.</p>
	Rivers	None known
FLORA	Significance Rating	Not significant
	Notes	This site is poorly surveyed.
OTHER ENVIRONMENTAL VALUES		<p>Eva Downs Swamp is proposed to be nominated by Birds Australia as an internationally-recognized <i>Important Bird Area</i> (G. Dutson in prep.) as part of a larger site including Tarrabool Lake.</p> <p>Eva Downs Swamp and Tarrabool Lake are listed on the Register of the National Estate for their natural values (Australian Heritage Council 2007).</p> <p>At least five species recorded from this site are listed under international conventions or bilateral agreements protecting migratory animals (DIWA).</p> <p>Although fish have been sampled in many creeks on the Barkly Tableland (Midgley 1982) and there has been some opportunistic collections in the region (H. Larson, MAGNT, pers. comm.), the fish fauna of the Barkly Lakes is poorly known. The lake is however, expected to hold very large numbers of fish given the great numbers of fish-eating pelicans and cormorants that they support intermittently.</p> <p>Yellow Chats occur patchily in shrublands and grasslands in semi-arid areas of northern Australia and small numbers are reported from this site (Jaensch and Bellchambers 1997).</p> <p>Sub-humid wetlands like the Barkly Lakes are likely to become increasingly important in the coming decades if global climate change drives even minor rises in sea level, and saltwater inundation occurs on the vast floodplain wetlands of coastal northern Australia.</p>
MANAGEMENT ISSUES		<p>Fire: Pastoral management generally seeks to suppress fire and in the period 1993-2004, 66% of the site was burnt in fewer than three years, and 2% was burnt in more than six years.</p> <p>Feral animals: The area is within a relatively intensively managed pastoral estate, and numbers of feral grazers are low. Feral cats are common in the region, and very numerous following irruptions of the native long-haired rat <i>Rattus villosissimus</i>.</p> <p>Weeds: <i>Parkinsonia aculeata</i> (Weed of National Significance) has been scarce or absent from the swamp in the past but present around nearby bores and has the potential to form thickets in the wetland. The current status of this weed in the swamp is unknown.</p> <p>Other: Heavy or continuous grazing by livestock is likely to limit regeneration of tree and shrub species and cause pugging and soil compaction on wet soil.</p> <p>The conservation values of this wetland are less well known than for other Barkly wetlands and this may hinder appropriate conservation planning.</p>
MANAGEMENT INFORMATION	NRM groups	Barkly Landcare and Conservation Association (Tennant Creek).
	Protected areas	The site is not part of the formal network of protected areas in the NT.
	Current management plans	<p>Site-specific plans: None known.</p> <p>Other management plans: Australian Weeds Strategy (NRMCC 2007); Threat Abatement Plan for Predation by Feral Cats (Environment Australia, 1999).</p>
	Monitoring programs and research projects	<p>Fire in the tropical savannas is mapped continuously under the North Australia Fire Information Project http://www.firenorth.org.au/nafi/app/init.jsp</p> <p>Aerial and ground surveys of waterbirds are conducted opportunistically by Wetlands International after major flood events (R. Jaensch, Wetlands International, pers. comm.).</p>
	Management recommendations	<p>Conduct a comprehensive assessment of the threats to the site and develop a formal management plan to address significant threats, including weed control and management of grazing pressure.</p> <p>The management plan may also investigate opportunities for stock exclusion areas and appropriate management of the site to maintain conservation values.</p> <p>Investigate the options for establishing a conservation agreement in cooperation with the landholder (NRETA 2005).</p> <p>Manage infestations of <i>Parkinsonia aculeata</i> and control other priority weeds.</p> <p>Conduct detailed surveys and ongoing monitoring of waterbird and fish populations, vegetation condition and weeds within the site.</p>
KEY REFERENCES	Papers and reports	<p>Jaensch, R.P. (1994a). <i>An inventory of wetlands in the sub-humid tropics of the Northern Territory</i>. Report to the Australian Nature Conservation Agency. Conservation Commission of the Northern Territory, Darwin.</p> <p>Jaensch, R. and Bellchambers, K. (1997). <i>Waterbird conservation values of ephemeral wetlands of the Barkly Tableland, Northern Territory</i>. Unpublished report to Australian Heritage Commission and Parks & Wildlife Commission of the Northern Territory, 76 pp.</p>
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