

Vale of Belvoir Reserve. Photo: Matthew Newton

There are many moments of joy in my work as CEO of the Tasmanian Land Conservancy (TLC), but it was a particular pleasure when last month, taking a couple of supporters on a tour of Tinderbox Hills, we spotted two endangered forty-spotted pardalotes. That makes it even more satisfying to announce that Tinderbox Hills Reserve is now protected, meaning these endemic birds will have a safe place to live.

On behalf of all of us at the TLC, I would like to sincerely thank everyone who contributed to the success of this campaign! Thanks to the generosity of so many, Tinderbox Hills becomes the TLC's newest reserve, protecting this ecological gem that is home to so many of our rare and threatened species on the fringes of Hobart.

We are thrilled to start 2021 with such a special new reserve.

Up in the highlands, we've been undertaking some very exciting new research. Rowena Hamer, one of the TLC's Conservation Ecologists, has been running a project at Silver Plains to determine whether captive-reared eastern quolls could contribute to the recovery of this iconic species across Tasmania. This project was run with the support of Rewilding Australia, the Tasmanian Quoll Conservation Program, the Tasmanian Department of Primary Industries, Parks, Water and Environment (DPIPWE), Trowunna Wildlife Sanctuary, Devils at Cradle and East Coast Natureworld, and it is a first for the TLC.

We have also made a very exciting botanical discovery at one of our newer reserves, Prosser River.

Before we buy a property we always investigate its natural values but on a property of this scale, sometimes there are unexpected surprises as we explore and survey.

The entire TLC team has been busy across the state across all our programs. We've had another successful year of the central highlands weeding program, now in its 10th year, Vale of Belvoir threatened flora monitoring, WildTracker workshops and much more. It has also been great to see so many volunteers out on the reserves assisting in our conservation efforts this field season. Thank you all.

James Hattam
Chief Executive Officer

HIGHLIGHTS



Tinderbox Hills Reserve. Photo: Andy Townsend

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Tinderbox Hills is now protected forever, thanks to you!



Beautiful firetail (Stagonopleura bella). Photo: Chris Tzaros

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Dr Alex Kutt asks what it is that makes us love nature.



Rowena Hamer studying quolls. Photo: Alex Kutt

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The TLC is tracking eastern quolls in the highlands.





The view from Tinderbox Hills Reserve. Photo: Andy Townsend

Tinderbox Hills is now a reserve!
We first launched the fundraising campaign to protect this gorgeous little property in November of 2019.
Since then we have seen Australia swept by bushfires and caught up in a global pandemic. Many of us have felt swamped by bad news. So it is with great joy that we declare that this vital piece of habitat for forty-spotted pardalotes and swift parrots is now protected forever.

Hundreds of you have contributed to this spirit-raising result. If you have given five dollars or five thousand; if you have shared social media posts about Tinderbox Hills; if you have passed on a TLC newsletter to a friend who has never heard of us, you have contributed. Thank you so much!

Wondering about what you've helped to save at Tinderbox Hills Reserve? This 67 ha property has an incredibly rich mix of habitats brimming with wildlife, from the canopy tops to the deep gullies. This diverse, mature woodland contains extensive stands of old-growth trees pocked with hollows, a retreat for swift parrots (Lathamus discolor). Towering blue gums (Eucalyptus globulus) provide food for the parrots while white gum (Eucalyptus viminalis) is a valuable food source for the endangered forty-spotted pardalote (Pardalotus quadragintus). Tinderbox Hills is one of the last places on the Tasmanian mainland where these tiny, rare birds still nest. There are also wedge-tailed eagle (Aguila audax fleayi) nests on the reserve.

More than 80% of the Tinderbox Hills property is classed as vulnerable blue gum dry forest and woodland community, recognised at state and national levels as a high priority for protection. Among the vegetation, as well as the many bird species, there are nationally threatened eastern quolls (Dasyurus viverrinus), eastern barred bandicoots (Perameles gunnii), Tasmanian bettongs (Bettongia gaimardie) and long-nosed potoroos (Potorous tridactylus).

Your contribution pays for the land where these species live, but a portion is also invested to provide funds to support the ongoing monitoring and management of our newest reserve. Ecological values need active management, with on-ground actions - from annual weed control to drainage work and erosion mitigation - targeting a range of threats. As the climate changes, we may also have to intervene to keep Tinderbox Hills' vital natural values intact. We're putting the management plan together for Tinderbox Hills Reserve's future and part of that plan may well involve you, particularly if you're a keen volunteer weeder (those who have pulled Spanish heath at Egg Islands Reserve may be licking their lips at the patches of heath to be found at Tinderbox).

And of course there's the party. We'll be celebrating the protection of Tinderbox Hills on Friday 26 March at the Salty Dog Hotel at Kingston Beach, just south of Hobart and within cooee of the reserve. If you haven't received an email invitation and you'd like to attend the celebration, you can either go to events.humanitix.com/tinderbox-celebration or call us at the office on 03 6225 1399.

Blue devil (Eryngium ovinum). Photo: Tim Rudman

A FLORAL DISCOVERY

During the early stages of the TLC's involvement with Brockley Estate, which became our Prosser River Reserve, I was undertaking a preliminary survey of the property when I stumbled across a very unusual plant. It had distinctive spiny leaves forming a rosette on the ground. These leaves belonged to a species of *Eryngium* (a genus of plants in the celery family), but which one? It was difficult to tell because there were no flowers.

Tasmania has two native species of *Eryngium*, and they are very similar. One of these species, blue devil (*Eryngium ovinum*), is listed as vulnerable in Tasmania and is only known from a handful of populations. It grows in grassy habitats and has spectacular blue spiky flowers held on upright stems. But this species had never been recorded near Buckland before.

Last year, along with Threatened Plants Tasmania, I undertook another survey of the reserve. I found some more *Eryngium* plants on the property, and these had flowers. This time they could be identified as blue devils!

Subsequent surveys have revealed that this species is abundant in the grassy woodlands on the property. Thousands of plants have now been discovered in the reserve, making this the largest population in the state. It's great news for this unusual plant, and another reason to be happy that we protected this remarkable piece of Tasmania.

Joe Quarmby Conservation Ecologist





Tall Trees Reserve. Photo: Rob Blakers

Over 20 years the TLC has developed diverse income streams. We obtain Federal or Tasmanian grant funding to support key programs like the Revolving Fund and the conservation stewardship services for the Protected Areas Partnership. We sell carbon credits accrued on the New Leaf properties we acquired after the collapse of Gunns Ltd. We fundraise to buy land, adding to our suite of reserves - the jewels in our conservation crown. And we grow, through philanthropic support, the TLC Foundation where capital (invested with an ethical screen) earns dividends that pay for the science and on-ground management on our reserve estate.

These inked-in gifts support critical work across the organisation, from ongoing landholder conservation programs like WildTracker and Land for Wildlife, to reserve visitation, events and research for future acquisitions. In between, regular donations also contribute to funding day-to-day administration – critical for our effectiveness as a conservation organisation.

There are currently just over 200 TLC regular donors, pledging to make a monthly or sometimes fortnightly gift. Why not join them? Even a small gift makes a world of difference if we can count on getting it every month.

Some employers support workplace giving, by enabling a pre-tax gift to be made through payroll. This way, you can enjoy the tax benefit from your generosity in every pay period. Contact our office for more information.

As we announce the protection of Tinderbox Hills and thank everyone who has supported this campaign over the last 18 months – we also want to applaud the TLC's regular donors. Their steadfast, dependable and ongoing generosity enables us to fund a range of projects and day-to-day works, while also helping us plan for the future.

Sign up for monthly giving in April or May and you will automatically go into the draw to join us on a trip by boat to our rarely visited Recherche Bay Reserve with the TLC Foundation fund founders. The trip will take place on Saturday 5 June.

GIVE

Make a monthly gift through the TLC's Regular Giving Program by signing up at tasland.org.au/donatemonthly. Even small regular donations are welcome, and you can pause or cancel your gift at any time.

Photo: Leigh Walters

TLC PEOPLE JULIE FIELDER

The TLC's Conservation Program Ecologists play a vital role in helping private land holders make the most of conservation opportunities on their land. Working with Anna Povey, who handles northern Tasmania, Julie Fielder (in the south) is bringing her 20 years' experience in conservation science to doing this very important job.

Julie works side-by-side in a partnership program with Tasmanian Government staff from the Private Land Conservation Program, providing stewardship support to conservation covenant landholders. She provides information, management advice and assistance, as well as access to new and emerging technologies and advances in conservation management.

Julie is an ecologist whose interests include fungi and their interactions with plants through the soil microbiome - a fascinating and ever-growing field of enquiry. She also brings a knowledge of fire ecology to her work with landholders, where she will be helping develop management plans to take account of fire in a shifting climate. Julie has previously worked on vegetation mapping, monitoring, plant pathology, mammal monitoring and translocation, aerial surveys, invertebrates, fungi surveys, metagenomic studies of soil fungi, forestry monitoring, and threatened species monitoring and survey. She has worked across Australia in a broad range of ecosystems, from the arid zone, through to cool temperate rainforest communities.

Julie shares her home with a thriving organic veggie garden and a very lively young kelpie, and she's enjoying getting out and meeting sheepdogs (as well as their owners) all over the south of the state.



Yellow-tailed black cockatoo (Calyptorhynchus funereus). Photo: Peter Vaughan

Being out bush does wonders for our spirit and soul, however we like to interact with nature. Some people prefer the gentler pursuits of bush walking or twitching, while others might like to fang about on mountain bikes or flick flies on graceful arcs of braid, followed by beers and stories by a fire. The unifying feature is the pursuit of happiness outside.

There is unsurprising evidence for the mental health benefits of the wild. It might be spending time in national parks and reserves and interacting with wildlife. Or in urban areas we might enjoy green spaces, like parks and gardens, or wild spaces, such as bush reserves or complex habitat, captured remnants in a housing sprawl. One of the joys of living in Hobart is the unique situation of being in suburbia that is full of mammals extinct on the mainland: it sometimes makes me shake my head in wonder. When living in Longreach, Queensland, I was chuffed at the grey kangaroos and emus that would chill in the shade of my poinciana; but backyard bandicoots, well, that is another level.

What is it about interacting with wildlife that calms us? Perhaps it is a hopeful reminder that humans have not trashed the joint entirely, or maybe it's that momentary bond with another organism. Bird watching boomed during COVID, and my best mate living in Dublin would send updates of the variety of tits at his lockdown bird feeder. Research from Europe suggests that interactions with birds are associated with increased

life satisfaction (and equivalent to income satisfaction); because higher bird numbers correlate with larger areas of forest, people living in bushier areas are happier.

This can pose some challenging questions about the nature of the environment we want - does it matter what types of vegetation or species we experience, as long as it is something wild or in sufficient numbers? Green space is fundamental respite for people who live in cities - but I have lived most of my life outside of urban centres, and all I get from pop-up gardens and shady elms in parklands is a sense of how much has been lost. Conversely, I have spoken to landholders in western Queensland who marvel at the cacophonous flocks of galahs and corellas converging on waterholes, thinking it a sign of a healthy country, when in fact it is just the opposite - a plague of disturbance-tolerant creatures. I am so hard to please.

Should we be so judgmental of what aspects of our natural world give us pleasure? To take the view to its logical extreme, if only the interaction matters you could just swap plants and animals in and out, as long as it is green and leafy and flowery, or fluffy and feathery. If we lose forty-spotted pardalotes, and striated pardalotes take their place, you still have a bird to watch, don't you? It is the conservation community's Gordian knot of species recovery, prioritisation, and triage, where we need to pick cost-effective

winners, as it seems we cannot save them all. And we will likely need to learn to love the inevitable novel ecosystems that will be created, dominated by things not from here (much like human mainlanders – including me – who are flocking to Tasmania).

The key in the short term is creating a range of protections for our landscapes that can maximise the resilience and persistence of species and vegetation into the future. This might seem like a clever pivot to shift the story back to TLC and its mission, but in my experience the first step in any pathway to conservation of species is protection and restoration of habitat and removing the threats, the most pernicious being the evil twins of land clearing and grazing. Reserves and covenants, and programs working with landholders like Land for Wildlife, are the foundation for this. Maybe one bird less does not matter, but we would rather aim for many birds more.

Dr Alex Kutt Conservation Science and Planning Manager

EXPLORE

the TLC's Bird Conservation Fund at tasland.org.au/projects/ bird-conservation-fund



Eastern quoll (Dasyurus viverrinus). Photo: Sean Crane

In November 2020, the TLC began researching ways to increase populations of eastern quolls in Tasmania's highlands. Working with the Tasmanian Quoll Conservation Program, Rewilding Australia and DPIPWE, the TLC set up a research project at our Silver Plains property near Lake Sorell.

The eastern quoll (Dasyurus viverrinus) is listed as endangered under federal legislation and by the IUCN. Mainland Australian populations of this species declined rapidly in the late 1800s and early 1900s, and eventually went extinct. Though eastern quolls survived in Tasmania, largely due to the absence of foxes, rapid declines of at least 50% are estimated to have occurred state-wide in the ten years to 2009.

Initial declines may be linked to a period of unsuitable climate, but although the rate of decline has slowed, most areas show no signs of population recovery.

- 1 There are four quoll species in Australia: spotted-tailed (Dasyurus maculatus), western (or chuditch) (Dasyurus geoffroii), eastern (Dasyurus viverrinus) and northern (Dasyurus hallucatus). Both eastern and spotted-tailed are found in Tasmania.
- Eastern quolls live up to three years. They eat insects, fruit, small animals and carrion, including road kill. Cars are a major threat, as are habitat removal and introduced species that kill or out-compete them.

This may be because numbers have dropped to a point where quolls can't breed fast enough to overcome deaths from predation or other threats.

The long-term goal of this project is to use targeted releases of captive-bred eastern quolls to increase population sizes to the point where they are able to 'self-rescue' - to breed enough that population declines are reversed.

As part of this project, our science team - led by Rowena Hamer gathered a group of 20 captive quolls from Trowunna Wildlife Sanctuary. Devils at Cradle and East Coast Natureworld. Bred in captivity, these young animals were reared with the intention of release. Before the quolls were set free at Silver Plains, the TLC team collected a DNA sample and equipped each with a tail-worn VHF tracking device. Along with a group of volunteers, the team set up feeding stations to help (and monitor) their transition to life in the wild, tracked them to see which habitats they prefer and how far they disperse before settling, re-trapped them to check their condition and re-released them. We have also trapped 16 quolls from the wild population and collected their genetic samples for DNA analysis.

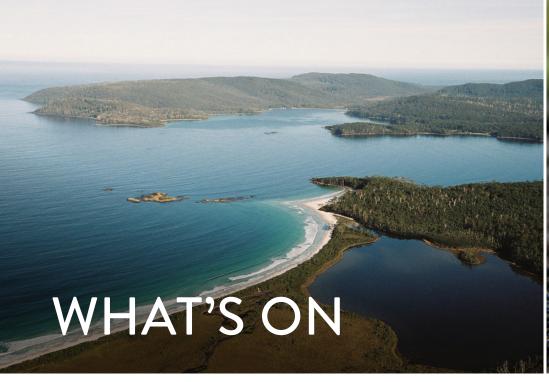
Silver Plains is one of the TLC's New Leaf properties. Purchased from Gunns Ltd and donated to the TLC by the Elsie Cameron Foundation, these properties are managed for conservation, while not being fully fledged reserves. Silver Plains hosts a number of science projects, including an Australian Mountain Research Infrastructure Facility, Latham's snipe surveys and research on fallow deer browsing and control. The eastern quolls project is just the latest in a suite of research taking place on the property.

The first phase of the eastern quoll project is now complete. While two captive quolls died in the first few weeks of the project (one from a fight, possibly with another quoll, and another of unknown causes), the surviving quolls are all in good condition. Tracking data has been collected for the quolls, and we've found that after they were released, most quolls didn't travel far. The furthest any have travelled is about 2.5km, and most stayed within 1km of where they were released.

The next stage of the project will take place in December 2021, when genetic samples will be collected from the next generation of quolls so we can estimate the genetic contribution of the release cohort to the local population.

ACT

Do you ever wonder if there are eastern quolls – or other exciting animals – living on your property? Sign up for WildTracker and join a team of citizen scientists monitoring nature on their own little patch tasland.org.au/projects/wildtracker





Recherche Bay Reserve. Photo: Bob Brown

Tall Trees Reserve. Photo: Jan Tilder

TINDERBOX HILLS RESERVE CELEBRATION

Friday, 26 March 2021

Through the immense generosity of hundreds of local and far-flung supporters, the TLC has been able to protect important habitat at Tinderbox Hills. Thank you all so much! Join us to celebrate the creation of Tinderbox Hills Reserve at the Salty Dog, Kingston. See **events.humanitix.com/tinderbox-celebration** to register.

SAVE THE DATE: PROSSER RIVER RESERVE DISCOVERY DAY

Saturday, 8 May 2021

South of Orford on Tasmania's east coast, the Prosser and Back Rivers cut their way through a valley of grassy woodland. This 1,534ha reserve has been protected thanks to a very generous bequest from the estate of David McGregor. Learn more about the threatened vegetation communities and 11 threatened plant and animal species on the reserve, as well as old-growth vegetation communities and freshwater ecosystems, on our 2021 Discovery Day. Registration details and more information about the day to come. Meanwhile, watch this clip about the Prosser River Reserve https://vimeo.com/482927196

SAVE THE DATE: RECHERCHE BAY RESERVE FOUNDATION FUND FOUNDERS VISIT

Saturday, 5 June 2021

With around 55 named funds, the TLC Foundation provides resources for ongoing science and on-ground management of the TLC's suite of reserves. The very generous founders of these named funds are invited to join TLC staff and special guests for an excursion on the *Odalisque*, visiting Recherche Bay. Invitations will be sent to Foundation fund founders with more information and registration details. To learn more about the TLC Foundation visit tasland.org.au/the-tlc-foundation/

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