



# AUTUMN 2023

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*Chrysolarentia perornata* at Five Rivers Reserve. Photo by Tim Rudman.

**As we head into another Autumn and get fully into the swing of 2023, I'm already looking back on what has been a busy start.**

Tasmanian Land Conservancy (TLC) ecologists have been out and about across a swathe of reserves, monitoring both plants and animals, and we've been hard at work organising a slew of supporter events for Autumn.

Thank you to everyone who has supported our current 'Future is in our Nature' campaign, and to everyone who recognises that protection is just the start of the conservation journey. We are grateful to have the security and longevity of the TLC Foundation, which currently funds 72% of the total cost to effectively manage and monitor our reserve estate. All the funds raised in this campaign will go to filling that 28% gap this financial year, ensuring

the unique values across our estate are protected into the future. In this newsletter, you'll read of some great examples, including the progress of our restoration work at Little Swanport Reserve and some rare discoveries at Kelvedon Hills Reserve.

One of the core values TLC has fostered over its 21 years is that of inquiry, supporting a culture of leadership within and outside our organisation and providing an environment that empowers our staff to participate, learn and thrive.

I am incredibly grateful for the opportunity to participate in the Social Impact Leadership Australia (SILA) Program. SILA focuses on leadership development and capacity building for CEOs of for-purpose organisations in Australia. Their aim is to disrupt common ideas of leadership, to ultimately create greater social

impact across Australia. A core element of the program is a three-month sabbatical, which I am taking as you read this. I'll be travelling and experiencing new places and people and perspectives that I can bring back to the TLC. SILA is a fully funded program, with funding provided by The Myer Foundation and Sidney Myer Fund, the Paul Ramsay Foundation and Vincent Fairfax Family Foundation.

In my absence (February to May), Dr Cath Dickson will be the TLC's Acting CEO, with Elise Jeffery taking on Cath's day-to-day role as Conservation Science and Planning Manager. This opportunity is not one I take lightly, and I am deeply grateful for the support of the TLC team and board. I look forward to connecting with you all on my return.

– James Hattam  
Chief Executive Officer

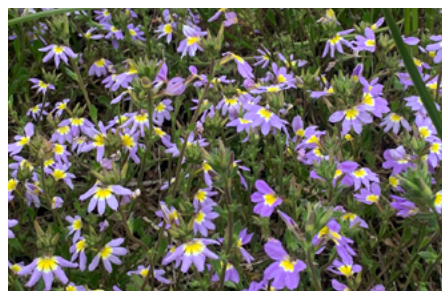
## HIGHLIGHTS



Flora surveys. Photo by Elise Jeffery.



TLC vehicle at eastern quoll surveys. Photo by Dr Dave Hamilton.



Fan Flower (*Scaevola aemula*). Photo by Joe Quarmby.

**Page 2** Conservation science work turns a property into a nature reserve.

**Page 4** Keeping track of eastern quolls.

**Page 5** A surprising floral find on the east coast of Tasmania.



# THE FUTURE IS IN OUR NATURE

Flora surveys at Prosser River Reserve. Photo by Elise Jeffery.

**This newsletter, like many before it, is full of stories from our reserves, highlighting the work we do to keep an eye on the species we protect, the research we undertake, and the interventions we make so those species have a long-term future.**

Dr David Hamilton talks about the TLC's eastern quoll reintroduction program, supplementing the Central Highlands population with captive-bred quolls.

Science intern Morgan Humphrey reports on research at our Little Swanport Reserve and we hear from Joe Quarmby and Aimee Bliss about a surprising floral community they found at Kelvedon Hills Reserve. Meanwhile, a team of volunteer weeders are just wrapping up the annual assault on ragwort at Five Rivers Reserve.

This is the kind of work that turns a property into a nature reserve. It's one thing to buy land, but without weeding, reserves like Liffey and Egg Islands would be inhospitable to threatened species; without targeted regeneration, threatened blue gum woodlands at Little Swanport Reserve would struggle to thrive; without supplementation, eastern quoll populations on our highlands reserves could be in serious decline.

We recognise the excitement that comes from supporting land purchases. It's thrilling to know that you helped to buy a reserve like Recherche Bay, Tinderbox Hills or the Vale of Belvoir. You can see the results there on the ground. But the kind of monitoring and management work we've featured in this newsletter is just as important to protecting nature.

Looking after our reserves costs \$64 per hectare: that's a total of \$1,160,000 this year alone.

When we establish a reserve, funds are invested in the TLC Foundation to manage it in perpetuity. Thanks to the support of so many, the Foundation now funds 72% of conservation management work across our reserves. But each year while we grow the capital in the Foundation to fund 100% we need to make up the difference, to ensure many of our older reserves can be managed and monitored effectively.

This year the Foundation is paying for an impressive \$865,000 of science monitoring and land management, the largest investment in TLC's history, but it isn't quite enough to fund all the work we need to do.

We need your help to protect Tassie's nature forever.



## GIVE .....

**With your help, the TLC's science and reserve teams will have the support they need as they work to understand our threatened species and prepare our reserves for a climate-changed tomorrow.**

**We need your help at [tasland.org.au/donate](https://tasland.org.au/donate) or call the TLC office on 03 6225 1399**



Joe Quarmby planting a Tasmanian blue gum. Photo by Cath Dickson.

## GROWING GUMS

**In November 2022, I began a stint as a Conservation Monitoring intern at the TLC, and I was thrilled to get straight out into the field on day two, on a mission to see restoration in action at Little Swanport Reserve.**

Tasmanian blue gum woodland here was clearfelled before it became a reserve. Now, with grazing removed, natural regeneration has been dominated by black wattle. Without the canopy cover provided by old-growth blue gums, the wattle has regrown in incredibly dense stands, some so thick that we couldn't walk through them.

To find out whether wattle is restricting the regrowth of understory and canopy species, TLC began a trial in 2020, clearing small patches of wattle and planting blue gum saplings.

In completely cleared plots, blue gum saplings have grown far more than in uncleared or partially cleared plots. Caging new saplings to reduce grazing was essential, with only ~ 10% of uncaged saplings remaining. Some caged saplings are now over 2.5m tall and bursting through the top of their cages. Felled acacias are acting as a natural 'cage' in some plots, providing microhabitats where understory species are growing and blue gum saplings are springing up.

To restore the structure and species complexity in eucalypt woodlands, we're finding that reducing competition is key.

– Morgan Humphrey



Gorse (*Ulex europaeus*). Photo by Elise Jeffery.



Staff and supporters at Prosser River Reserve. Photo by Eddie Safarik.

# TLC PEOPLE

## WHY WEED?

Ask a gardener what they love most about time spent in their patch, and the least-likely answer you'll get is 'weeding'. But here at the TLC, weeding is an integral part of how we look after our reserves. For some people, it's even worth giving up a weekend for!

Weeds are often overlooked as a threat to native species, but of the Australia's ten worst invasives, plants (blackberry and lantana) take up two of the top spots. The Australian Government estimates that weeds do more than \$4 billion of damage to the environment each year, and that exotic species now make up about 15% of Australian flora. Weeds change the structure, species composition and fire frequency of ecosystems, and are a major threatening process to some of our endangered species, particularly threatened orchids.

On our reserves, the weeds we most focus on are gorse, Spanish heath, foxglove, ragwort and mullein. Our reserves team dedicate around 180 days a year to controlling weeds, with their efforts supplemented by volunteers. Thanks to those volunteers we have, over several years, made a serious dent in Spanish heath at Egg Islands Reserve and foxglove at Liffey Reserve. And this summer, weeders have once again been plucking out ragwort and mullein at Silver Plains and Five Rivers Reserve. Thank you to everyone who has devoted their time to this often backbreaking but vital work!

**With CEO James Hattam on a well-earned sabbatical, staff are moving chairs around to fill the gaps. Dr Cath Dickson has taken over James' duties until he returns, and Elise Jeffery will be Conservation Science and Planning Manager (Acting) during the same period. Meanwhile, as our Land for Wildlife program keeps expanding, we've also shuffled things around in our Reserves and Operations teams. Oliver Ward, who has been looking after the Business team for a little over a year, will now head up Conservation Programs in an acting capacity, stewarding our Midlands Conservation Program, Land for Wildlife and Revolving Fund programs. Mel Eyes steps up to lead the Business team, ensuring the TLC is well-governed and financially sound.**

Belle Cloudsdale (formerly Monk), who cares for our southern reserves, is now caring for a little one of her own, having welcomed gorgeous Wren into the world. While Belle is on maternity leave, her role is being filled by Iden Reidy, who has worked on fire recovery with Parks Victoria and volunteered in land management with conservation organisations all around the country.

Matilda Terry has come on as a Conservation Programs Ecologist and will be working towards establishing conservation covenants to protect threatened species, habitat and vegetation communities around the state. Tilly has worked as a research assistant and consultant ecologist, surveying across Victoria and semi-arid NSW. In the last months of 2022 she was assisted in her TLC work by Jarrah

Vercoe, Revolving Fund Coordinator, before he moved on to a new position at Tas Networks.

In December, we were sad to lose Conservation Ecologist (Flora), Joe Quarmby, who has taken on a Senior Botanist role with the Tasmanian Government. Aimee Bliss, who joined us last year as a Field Ecologist, has stepped into the role after a competitive recruitment process. Followers of TLC social media will already be familiar with Aimee's quoll-trapping and rare-plant-finding abilities.

In the last TLC newsletter we welcomed the new coordinator of the Midlands Conservation Fund, now known as the Midlands Conservation Partnership. This name change reflects how both TLC and Bush Heritage Australia work in partnership to administer the program and with the farmers who participate. As part of the revitalisation of this ten-year-old program, Pierre Defourny has been working closely with all these partners. Pierre has come to us from Belgium, where he worked for the European Union across trade, climate and sustainability.

## EXPLORE .....

Find out more about the team behind the TLC and keep an eye out for opportunities to join us by following us on LinkedIn or visiting [tasland.org.au/about-the-tlc](https://tasland.org.au/about-the-tlc)



# QUOLL SEASON

Dr David Hamilton releasing and monitoring eastern quolls. Photo by Elise Jeffery.

**'Tis the season to be quolly! It certainly has been for TLC's science team, who have been out at TLC property Silver Plains for annual eastern quoll monitoring.**

This very special part of the Central Highlands was the site for a supplementation trial TLC conducted in 2020, with partners WWF Australia and the sanctuaries that make up the Tasmanian Quoll Conservation Program (read more at [tasland.org.au/blog](https://tasland.org.au/blog)). Since the quolls' release, we've been heading out to Silver Plains annually to track how the eastern quoll population is faring, as well as to collect genetic samples from the new juvenile cohort.

Eastern quoll breeding is strictly seasonal, with mating occurring in June/July. Tiny rice-grain-sized young are born a couple of weeks later, raised in the pouch until they become large enough to be left in a den, then become fully independent from their mothers in December/January. That makes the turn of the year the optimum time to head out looking for fresh quolls.

In early January, along with Conservation Ecologist Aimee Bliss and science intern Morgan Humphrey, I went to Silver Plains to catch some quolls! We wanted to catch the newest juvenile cohort of quolls to obtain genetic samples so we can see the genetic effects of the 2020 supplementation. We also wanted to estimate the Silver Plains eastern quoll population via live trapping, camera trapping and spotlighting transects.

Recent reports of eastern quoll population declines have been based

on spotlighting data collected by the Tasmanian Government since the 1980s. This is an extremely valuable long-term dataset that can allow insight into population trends. However, the spotlighting transects were originally designed to estimate densities of species such as Bennett's wallabies and brushtail possums. Species like quolls and devils turn up on the transects relatively irregularly, which means they don't show exactly how much local populations have declined.

We're replicating the spotlighting methods for these transects at a variety of sites, then comparing them to density estimates that we obtain at the same sites via live trapping and camera trapping. Hopefully this will give us a better idea of how much eastern quoll numbers are fluctuating across the state.

Camera arrays were set up in early December 2022, so the focus for this trip was live trapping and spotlighting. We trapped 14 individual eastern quolls (some over-enthusiastic customers on multiple occasions!). Eight of these were juveniles born in mid-2022.

We caught slightly fewer adults than expected, possibly due to the third wet winter in a row. Eastern quolls are adversely affected by wet winters, with declines detected in the past.

However, one of the adults we caught was one of the original captive-bred quolls released in 2020! This is great news – eastern quolls are doing well if they make it to three years old. The fact that at least one of the quolls released is still going strong at over

four years old shows how well these animals have taken to being in the wild. We will await genetic results to see if he's managed to father any offspring this year.

Tasmanian devils also turned up in impressive numbers, with 13 different individuals caught over the 7 nights. We'll obtain density estimates for devils using this data, and provide valuable genetic samples to the Save the Tasmanian Devil Program for their ongoing research into Tasmanian devil declines induced by devil facial tumour disease. We were also lucky enough to catch a spotted-tailed quoll – only the second record of this species for Silver Plains!

The spotlighting transects were also very interesting, with only a single eastern quoll seen over five nights of spotlighting. Lots of brushtail possums, Bennett's wallabies and wombats were observed, while there were great views of a juvenile Tasmanian devil and a boobook owl.

All in all, it was a very successful trip, with lots of data for our scientists to crunch back in the office. Morgan will be working hard on all this information over the next few months, and we'll hopefully have some results to report later in the year!

– Dr David Hamilton



# FLORAL DISCOVERY

Tasmanian ray flower (*Cyphanthera tasmanica*) at Kelvedon Hills Reserve. Photo by Joe Quarmby.

Government House Tasmania. Photo by Manderlee Anstice.

**Late last year, Conservation Ecologists Joe Quarmby and Aimee Bliss made a thrilling discovery while undertaking vegetation monitoring at Kelvedon Hills Reserve.**

Thorough mapping of vegetation is one of the first things we do after we set up a reserve. Although we have satellite mapping of vegetation, provided by TASVEG (the digital vegetation map of Tasmania), checking vegetation on foot is more accurate. These visits usually lead to the team reclassifying and remapping what's on the reserve.

'Once we know what's there, we can set up our long-term monitoring sites,' says Aimee. 'We try to get a good geographic spread of each vegetation type. We invest a lot of time in the set-up, because once it's done it's permanent.'

Joe and Aimee spent four days walking through Kelvedon Hills Reserve and only covered one-third of the property. Aimee will spend another few weeks this year setting up monitoring sites. Establishing and maintaining vegetation monitoring is a huge job: at Five Rivers Reserve there are 100 sites; the Vale of Belvoir Reserve has more than 70. Depending on the type of vegetation, sites are revisited every five-to-ten years, or soon after major events such as fires. Across TLC's estate of 25 reserves, monitoring is a major part of the science team's work.

This particular trip brought an astonishing finding.

'The first day we went to the southern part of the property,' Aimee says,

'and we found lots of threatened, unmapped blue gum forest. On the second day we went into the northern part of the reserve, an area that was burned in 2020. We started running into threatened species, ephemerals that have all come up since the fire. We found six species, a lot of them in groups together. It was a full understory. There were thousands of fairy fan flowers, *Scaevola aemula*, just like a carpet. I haven't seen anything like it before.'

As well as the fairy fan flower, they found broom wheel fruit (*Gryostemon thesioides*), Tasmanian ray flower (*Cyphanthera tasmanica*), clubmoss everlasting (*Ozothamnus lycopodioides*) and Tasmanian velvetbush (*Lasiopetalum micranthum*).

None of these species were previously known from Kelvedon Hills, meaning there has been an increase in the known range of the fairy fan flower. This could be the biggest population of the species ever recorded.

'Seeing something like this is a once-in-a-lifetime thing,' says Aimee. 'They're going to be sitting in the seed bank now for decades until the next big fire event. They're there, they're fine, but we may not see them ever again.'

'That's the great thing about establishing a reserve like Kelvedon Hills. You're protecting threatened species, even if you can't see them.'

## IN THE COMMUNITY

**We regularly ask for your help so that we can buy land and establish reserves. But logging on and providing your credit card details isn't the only way to support the TLC. We are grateful to see creative and new ways the community helps us look after nature.**

In November, local bloke Thomas Keith took to his bike to tackle the Tassie Gift – 1,800 km of competitive bikepacking known as 'the scenic trip to hell' – asking people to support him by donating to the TLC. This brutal course takes between 8 and 24 days to complete and has an elevation gain of around 35,000m. It's been running for four years and of the 64 starters in that time, 25 have finished. This year Thomas was one of them. Through his efforts he raised nearly \$6,000 for the TLC. We're in awe of his grit and so grateful for the contribution from him and his cheer squad.

At the other end of the spectrum, in December, Government House generously hosted an evening fundraiser for the TLC. The sweat and effort were virtual, as we watched excerpts from 2022 Tasmanian Australian of the Year Craig Leeson's adventure/environment documentary, 'The Last Glaciers', and heard Craig speak about his activism. Bookended by a gentle stroll around the gardens and snacking on a gingerbread house beneath portraits of the royal family, it was a delightful evening out. Thank you to the Governor, Her Excellency the Honourable Barbara Baker, for hosting us.



# WHAT'S ON

Car weevil at Kelvedon Hills Reserve. Photo by Simon Grove from TMAG.



Land For Wildlife Workshop at Inala. Photo by Eddie Safarik.

## WOMEN IN CONSERVATION

**Thursday 9 March**

Join us for an evening celebrating the contribution of women in conservation, at Rosny Barn, Hobart. Talks from artist Lucienne Rickard and former TLC CEO Jane Hutchinson, as well as plenty of opportunities to network with colleagues. Book your ticket at [events.humanitix.com/women-in-conservation](https://events.humanitix.com/women-in-conservation)

## DISCOVERY DAY: FIVE RIVERS RESERVE

**Saturday 25 March**

Five Rivers is the TLC's largest reserve, in Tasmania's dramatic highlands. We'll visit a grove of cider gums, recovering after fire, take a tour of an open-air climate change research facility, learn about eastern quolls in the highlands and take a hike to see an incredible view. Find out more and book your ticket at [events.humanitix.com/discovery-day-five-rivers-2023](https://events.humanitix.com/discovery-day-five-rivers-2023)

## FOUNDATION FUND FOUNDERS RESERVE DAY: VALE OF BELVOIR RESERVE

**Thursday 27 April**

We'll be travelling to the beautiful Vale of Belvoir Reserve for a day of hiking and discussion. If you have your own named fund in the TLC Foundation, watch your inbox for details. Foundation Fund Founders are generous supporters who have established named funds that contribute to the TLC Foundation. Find out more (or join their number), at [tasland.org.au/the-tlc-foundation](https://tasland.org.au/the-tlc-foundation)

## COME SAY HELLO, WE'LL BE AT!

**Saturday 18 March**

Bream Creek Show  
Marion Bay Rd, Bream Creek

**Thursday 4 – Saturday 6 May**

Agfest  
Oaks Rd, Carrick

We acknowledge the Tasmanian Aboriginal people as the traditional custodians of the lands on which we work and recognise their continuing connection to land, waters and culture.

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James Hattam

