TASMANIAN LAND CONSERVANCY

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NEWSLETTER 77

Pine Tier. Photo by Rob Blakers.

If the start of the year is anything to go by, 2024 is going to be another great year for the Tasmanian Land Conservancy (TLC).

Our team has been hard at work with annual weeding programs in full operation including many of our newest reserves, as well as the delivery of our long-term ecological monitoring program across the reserve estate. I would like to extend a huge thanks to all the volunteers that have supported our fieldwork this season – there is no way we could achieve the breadth of our work without their dedication and commitment. A special thanks to some of those weeders who have been contributing annually for more than 10 years to our Summer Weeding Program, it's a remarkable effort with lasting outcomes.

A recent highlight for me was the locals day at Sloping Main, or as many of them reminded me 'Slopen Main'... It is always such a privilege to contribute to local conservation efforts and to engage with like-minded communities about the work we are doing on our reserves. The Tasman Peninsula community have made an enduring commitment to conserve this special part of Tasmania and we are delighted that we can work alongside them at our Sloping Main Reserve.

We are also excited to launch the next phase of the Gardens for Wildlife Program in Tasmania, which has transitioned to TLC from the Tasmanian State Government. We hope to grow the program in years to come, involving even more people in active conservation efforts and wildlife-friendly gardening in their own backyards. The program will work alongside TLC's established conservation programs, particularly Land for Wildlife and WildTracker which are growing in popularity with landholders across the state.

In this newsletter, there are some inspiring updates from our partnerships with landholders working to conserve some of our rarest species, including the swift parrots on Bruny Island and eastern quolls in the Tasmanian Midlands and east coast.

We look forward to seeing you all out and about over the year ahead.

– James Hattam
Chief Executive Officer

HIGHLIGHTS

Swift parrot fledgling. Photo by Nigel Jepson.

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How you can help save the swift parrot on your land.

Camera trap. Photo by Heath Holden.

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The role technology has played in wildlife monitoring over the years.

Release of an eastern quoll. Photo by James Hattam.

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Helping Eastern quolls across Tasmania.

SAVING THE SWIFTIES

Swift parrot. Photo by Evan Draayers.

Matilda Terry on Bruny Island. Photo by James Hattam.

It might be hard to believe that the critically endangered swift parrot (*Lathamus discolor*) was the most common bird species on John's South Bruny Island property this summer – but it's the truth for this breeding season.

As you stand on John's deck, you can see fairy wrens feeding among the native vegetation and patches of disturbed ground left by a long-nosed potoroo. But it's when your eyes turn towards the canopy that you can spot the bright green swifties, darting about their errands and feeding fledged juveniles.

The old-growth stringybark (*Eucalyptus obliqua*) and blue gums (*Eucalyptus globulus*) provide perfect breeding hollows for the parrots, and the large flowering events on South Bruny this summer mean their favourite foods are in abundance.

Listening to the chatter above you might think swift parrots weren't in trouble. But due to habitat loss, some estimates put their numbers at lower than 750 in the wild - the significance of this number isn't lost on John.

'I feel like I am part of this place, and it is part of me,' said John. 'I really consider my "ownership" to be more like a period of temporary custodianship.'

'Due to human activity the numbers of swift parrots and other species on the planet are depleting fast. I like hearing their song and having them around and I'd be sorry if they were gone.'

Like many concerned landholders, John has placed his land under a Conservation Covenant to preserve vital swift parrot habitat. His land is one of three neighbouring properties that have gotten together for conservation, creating an unfenced, contiguous sanctuary for swift parrots and other native fauna. These properties, which join more than 920 covenants across the state, form a large, protected tract that connects with the South Bruny National Park and allows swifties to traverse large parcels of land in search of food and habitat.

Established through the Department of Natural Resources and Environment Tasmania's (NRE Tas) Private Land Conservation Program, covenants are just one way that landholders can add to Australia's network of protected areas, the National Reserve System. Other important ways to provide stewardship over areas of ecological significance on private land include TLC's Land for Wildlife Program.

Conservation Covenants help reduce threats to swift parrot habitat that occur on private land, like over grazing, vegetation clearing, and irresponsible firewood collection, giving native flora and fauna the opportunity to be protected now and in perpetuity.

TLC's Conservation Ecologist, Matilda Terry is currently working with NRE Tas to connect with landholders on Bruny Island (and across the channel) to keep these native forests intact and protect breeding sites for the benefit of swift parrots.

This is a vital project as swifties on Bruny and Maria Islands are free from predation by the invasive sugar glider. By conserving Bruny Island and its surrounds we have a much higher chance of protecting the swift parrot and seeing their numbers grow in the future.

While walking through John's property and spying the overhead swifties, it's easy to see why he decided to protect it. Taking out this covenant is an indelible win for conservation and ensures the land is protected forever, no matter who the landholder is.

With help from funding by NRE Tas, properties like John's can protect critical habitat from the threats humans bring and reduce impact on endangered species like the swift parrot.

ACT

For more information on Conservation Covenants, or our other private conservation programs, contact us at info@tasland.org.au or visit tasland.org.au/ccp

OBSERVING NATURE WITH TECHNOLOGY

Brush tail possum and joey.

Emma McPhee. Photo by James Hattam.

Many of us find solace in the outdoors as an escape from modern technology, but new gadgets are increasingly influencing how we experience nature.

Smartphones guide us on trails, watches assist in navigating the night sky, and digital cameras allow us to capture and share wildlife encounters.

In Tasmania, remote cameras, also known as camera traps are a popular tool for observing wildlife. TLC's WildTracker program is a great way to utilise these cameras and track the wildlife on your property, while aiding conservation science. Although camera traps might seem like a new partnership between nature and technology, they have helped us understand the natural world for longer than you might think.

As early as the 1890s, nature photographers used crude tripwires to trigger bright flashes of magnesium powder, before capturing animal subjects fleeing in fear. Later, cameras with photoelectric triggers were used to release a camera's shutter when an animal disrupted a beam of light.

If you'd like to see some of this bygone technology, the Tasmanian Museum and Art Gallery has a Hanimax Super 8 film camera, encased in a PVC pipe on display. But don't let the makeshift setup fool you, the Tasmanian Parks and Wildlife Service used these in the 1980s to search for thylacines in the northwest – unfortunately, none were found.

Today, TLC has a network of around 200 camera traps on private land, including 60 cameras lent to Land for Wildlife (LFW) participants through the WildTracker program. Thankfully, these are less invasive than cameras of old and use passive infrared (PIR) motion sensors as a trigger. They aren't totally accurate - false triggers and 'empty' images remain a challenge. Ongoing research on eastern quolls has amassed a whopping 8.5 million photographs, perhaps only 10% of which are of animals! Nevertheless, camera traps are a valuable tool in helping us monitor wildlife.

Some of the most exciting WildTracker images are of a fan-tailed cuckoo raiding the nest of a superb fairy-wren. The footage isn't always perfect, but it's thrilling to observe new behaviours.

If you are collecting images of local wildlife using camera traps and are part of TLC's various Conservation Programs you can help by uploading them to the WildTracker website. Images you collect can then be used by ecologists at TLC to answer important questions and inform decision making. With your help, we can evolve WildTracker and provide new insights into the animals that live all around us.

Camera traps will never replace the joy of a unique in-real-life wildlife encounter, but they play an important role in connecting Tasmanians to their nocturnal neighbours. After all, you can't love and care for what you don't see.

GARDENS FOR WILDLIFE

In case you hadn't heard, TLC is launching the Gardens for Wildlife (GFW) Program, and will continue supporting existing members, as well as inviting new gardeners to learn more about wildlife-friendly gardening.

After 15 years of stewardship from Iona Mitchell of the State Government's Private Land Conservation Program, our team are thrilled to continue GFW and help enthusiastic gardeners turn urban areas into habitat for native wildlife.

Whether you have a large urban garden, a veranda with a few pot plants or anything in between, GFW is open to anyone that would like to use their garden to extend habitat for birds and animals and create a network of urban greens spaces.

All GFW members will be invited to TLC events and receive newsletters with interesting articles and advice.

If you have land smaller than two hectares and are interested in becoming a GFW member, visit our website and fill out an expression of interest form, or contact our GFW Coordinator, Emma McPhee at **gardensforwildlife@tasland.org.au**

GIVING QUOLLS A HELPING HAND

Eastern quoll. Photo by Matt Newton.

Our team has been hard at work helping everyone's favourite furry friends, the eastern quolls.

For the past 12 months our Conservation Science and Planning team has been busy in the field with the early stages of a very important study into Tasmania's eastern quoll population.

Last year, the University of Tasmania (UTAS), TLC, and WWF Australia, received a grant from the Australian Research Council and NESP Resilient Landscapes Hub to explore which factors are behind the decline in eastern quoll numbers across the state.

The project is building on years of work done by UTAS' Dr Bronwyn Fancourt into quoll decline and aims to better understand what threats and factors are affecting our quoll populations.

It is still early days, but the project is focusing on the experimental release of captive-bred quolls across sites in the Midlands and along the East Coast, selected specifically for their falling numbers of quolls. These sites provide an excellent opportunity to determine the effectiveness of this translocation approach and to hone-in on what specific actions we may be able to take to reverse the population decline.

Individual monitoring of released quolls will also provide valuable information for eastern quoll conservation efforts on the Australian mainland by informing which threats and resources are key to their survival.

Within the project team, two Honours students are conducting preliminary research and developing hypotheses at each selected site. Each student is looking at different factors affecting quoll survival, with one focusing on biotic habitat characteristics (density of predators, competition and prey) and the other focusing on physical habitat characteristics, such as vegetation and climate.

Following this preliminary research stage, two PhD students will focus on executing experimental translocations and testing the hypotheses against the importance of defined habitat characteristics. Initial results from releases will guide researchers in updating models and refining release strategies over the course of the project.

Over the past six months we have deployed 390 cameras across 13 sites which will allow us to gather data to estimate the quoll population density. These motion-sensor cameras will also detect other wildlife in their areas and give us an idea of correlations between species (such as spotted-tail quolls, Tasmanian devils and cats) and the effect this may have on eastern quoll populations.

We have also implemented two sampling techniques at each camera site to give us an insight into the relative abundance of invertebrates (AKA 'quoll food'). In the first method, spade sampling, we remove and sift a square of soil to determine the quality of invertebrates within. Using this method, we can specifically target species identified as quoll food sources, such as corbie grubs (*Oncopera spp.*) The second technique is installing pitfall traps at each camera site that capture insects travelling through the air and amongst vegetations. These samples are then weighed to determine the relative biomass of invertebrates and abundance of quoll food at each site.

In the coming months we will conduct further surveys to evaluate the habitat at potential eastern quoll release sites.

We would like to thank our project partners and collaborators: the University of Tasmania, WWF Australia and Tasmanian Quoll Conservation Program, as well as private landholders facilitating this research on their properties. Thank you to the Australian Research Council, NESP Resilient Landscapes Hub for funding this project and for further support from the Elsie Cameron Foundation.

BIRD RESEARCH SCHOLARSHIP

Grey shrike thrush. Photo by Phil Wise.

Are you a postgraduate student researching birds in Tasmania?

If you answered yes, you might be interested in applying for TLC's Bird Conservation Fund Scholarship.

Each year, TLC facilitates applied scientific research through an annual $5,000 postgraduate scholarship that focuses on closing critical knowledge gaps on bird conservation across Tasmania. Applications for our 2024 funding round are open now.

Last year TLC funded two projects, which were both presented at our Conservation Science Symposium in August last year. Moses Pillay from the Australian National University's Difficult Bird Research Group presented his honours research on the diet and its carry-over effects on the future fitness of orange-bellied parrots.

PhD candidate Edith Shum from UTAS is researching a concept called 'place attachment' in her study *Tasmania - There's no place like home: Species as place makers in light of environmental change*. The study, which is taking place on Bruny Island, focuses on people's bonds with the places they inhabit and the role species have in shaping our connection to places, particularly in the context of ongoing environmental changes.

Both projects are progressing nicely, and Edith is using thermal drone imagery to identify burrows of short-tailed shearwaters along the Neck. She is also getting involved with the local community on Bruny Island to find out how they connect to the species that reside around them.

If you think your research project could be supported by the Bird Conservation Fund scholarship, you can find out more here. Applications close 31 March.

Thank you to those supporters who through their support of the Bird Conservation Fund, part of the TLC Foundation, enable this annual scholarship.

For more information on how to apply for the 2024 funding round head to **tasland.org.au/projects/bird-conservation-fund**

EXPLORE

If you'd like to get involved with Edith's project scan the QR code below or visit utas.qualtrics.com/jfe/form/SV_0Bd81vIEwXvBJpl

Locals day at Sloping Main Reserve. Photo by Gemma Dyke.

SLOPING MAIN LOCALS DAY

In late January, we welcomed over 80 locals to join us for a morning tea at our newest reserve, Sloping Main. Our team was thrilled to meet everyone that came along and share how we plan to protect and manage the 660 hectares of Sloping Main Reserve.

It was a beautiful day with the extensive saltmarsh under clear, blue skies providing a stunning backdrop to meet the community. Tea, coffee and cake were served up while locals shared their stories of connection with the area, before some of our team introduced how we use Conservation Standards, the international adaptive management framework to manage our reserves. So far, the team has undertaken the initial on-ground works (weeds, tracks, fencing) and are now completing monitoring to better understand the natural and cultural values of the reserve.

It was fantastic to see such a positive response from everyone present and to answer questions about TLC's reserve management plans, including fire management and how we plan to care for the saltmarsh to ensure its longevity.

We thank everyone who came along for their warm welcome and for sharing our passion around protecting the beautiful and diverse ecosystems of the Sloping Main Reserve.

Pine Tier. Photo by Rob Blakers.

Blue Tier Reserve. Photo by Chris Crerar.

FIELD DAY - TREES ON FARMS

11am - 2pm, Wednesday 20 March, St Peters Pass, Oatlands

Private Forests Tasmania and the Tasmanian Land Conservancy will be holding a combined field day this March. The day will cover the benefits of native and commercial tree plantings for insect biodiversity and pollination services, water quality and erosion control, revegetation planning, agricultural productivity and profitability, carbon values and the ACCU Scheme. RSVP here **shorturl.at/BLNS9**

KUNANYI MOUNTAIN RUN

22-24 March

Traverse the famous mountain on Hobart's doorstep, rich in culture and history. If you would like to use your run to raise money for TLC, please contact Daniel McMahon at dmcmahon@tasland.org.au. You can also donate to our team running in the event or drop into our recovery stall to listen to the different bird songs you might hear on the mountain. Find out more here **kunanyimountain.run**

COME SAY HELLO, WE'LL BE AT

Bream Creek Show Saturday 16 March, Marion Bay Rd, Bream Creek

Volunteering Update

In December 2023, we asked volunteers if you are still interested in volunteering with us. While we're thrilled so many of you want to contribute your time to nature conservation, there are more interested volunteers than current opportunities.

Please don't feel disheartened if we don't contact you straight away. We appreciate your commitment to TLC's work, and we will be in touch with more volunteering opportunities throughout the year.

Apology from the team

For those of you who receive our email communications, we have had some recent IT glitches that caused issues with some recipient's names. We would like to offer a sincere apology to anyone this affected – it's not our style, nor our intention to be so impersonal. We are doing everything we can to rectify the issue so this doesn't happen again. Thank you for your understanding.

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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