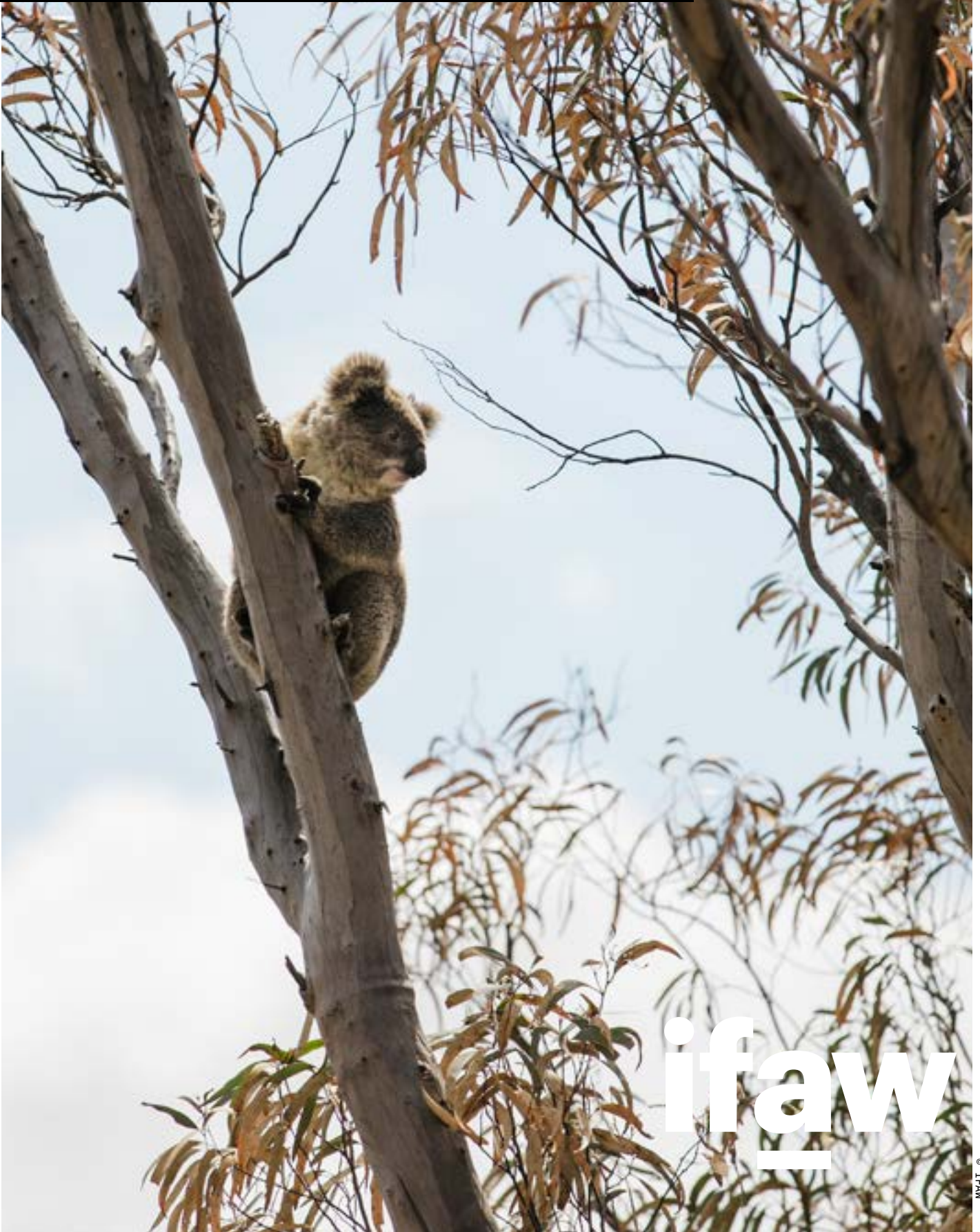


Your Impact: Two Thumbs Wildlife Trust Sanctuary



A koala sighted in a tree during a 'black walk' at Two Thumbs Wildlife Sanctuary Trust back in 2020.

Two Thumbs Wildlife Trust Sanctuary:

A story of compassion and a home for koalas



Photo: © IFAW

James Fitzgerald from Two Thumbs Wildlife Trust Sanctuary walking through the blackened landscape searching for surviving koalas in the aftermath of Australia's devastating 2019-2020 bushfires.

The 2019-2020 Australian bushfires devastated the land, its people, and the animals who call this incredible place home. It also put a spotlight on the extraordinary people who devote their lives to rescuing and caring for animals. At IFAW, we are honoured to work alongside such an amazing network of volunteer wildlife rehabilitators and carers.

Among them is James Fitzgerald. He is a true wildlife hero who has proven time and again that nothing will stand in his way of helping animals to survive and thrive. James has been rescuing and rehabilitating Australian wildlife since he was a child. He now owns and operates Two Thumbs Wildlife Trust Sanctuary (named after the two thumbs of a koala's paws) in Peak View, southern New South Wales (NSW).

The property is made up of a trio of sanctuaries, spanning over 1,800 acres of pristine protected wilderness. Before the fires, this undeveloped area was a wildlife haven and home to one of Australia's most unique koala populations as well as kangaroos, wallabies, gliders, and lyrebirds. The sanctuary also served as an important release site for other native wildlife groups.

It was the 2019/20 bushfires that changed everything. After narrowly escaping devastation in early January when James and his fellow RFS volunteers fought to protect the sanctuary, a few weeks later, on January 23rd, 2020, a double tragedy struck.

The wind suddenly changed and pushed fire back towards Two Thumbs. It tore through relentlessly,

burning James' home, the sanctuary and his life's work. James had been taking a koala to the vet and was not at home at the time. Devastatingly, the koalas and other animals on his property died. The disaster was not over though. A fire-fighting air tanker battling to protect James' sanctuary that same day crashed onto his neighbouring property, killing all three American crewmembers onboard.



Photo: © IFAW

James Fitzgerald from Two Thumbs Wildlife Trust Sanctuary and IFAW veterinarian Dr. Paul Ramos examine an echidna found in the burned forest.

The aftermath of the disaster

After that tragic day, James immediately started searching for survivors and conducted daily 'black walks' of his property with volunteers to search the charred landscape in the hope of finding life. As we all know, koalas are notoriously cryptic creatures, so it was extremely challenging with just the human eye. This was where Bear, IFAW x UniSC (University of the Sunshine Coast) koala detection dog came to the rescue.

Bear was deployed in February 2020. Along with his handler Romane Cristescu, and koala rescuer and drone operator, Kye McDonald, Bear found nine koalas in need of help at Two Thumbs. Among them were mum and bub, Jessie and Amelia. Many of the koalas were rehabilitated at the Australian National University (ANU) under the supervision of Dr Karen Ford, before moving back to Two Thumbs when they had been rehabilitated.

Returning to the wild and rebuilding

As the habitat slowly recovered, injured koalas that had been rescued and treated, continued to be released at Two Thumbs. Jessie and Amelia (along with surprise joey Jazz, as seen in the video below) were released in August 2020 along with other koala orphans Mark and Jarrah. James also named three rescued koalas in memory of the brave US serviceman who died - Captain Ian H McBeth, First Officer Paul Hudson and Rick De Morgan Junior.



Photo: © IFAW

Closeup of the koala joey named Jazz inside the pouch of its mother Jessie as she receives a pre-release health check by a veterinarian with the IFAW-partnered Two Thumbs Wildlife Trust Sanctuary.



▶ Scan me

Watch the release video of Jessie, Amelia and Jazz by scanning the QR code with your mobile phone, or view it at <https://qrco.de/bemNNW>

This new hope had inspired James to rebuild the sanctuary to be even better than before. IFAW initially supported James by contributing to the cost of rebuilding new purpose-built koala enclosures in 2020. Since then, we have been revisiting the sanctuary to do what we can to help and it's thanks to you and our wonderful supporters that we have been able to work with research and ecological partners to rebuild the sanctuary from the ground up!

Research

The sanctuary has been an important survey site for a joint three-year research project between IFAW and UniSC. The project has helped assess the impact of bushfires on koala health and resilience. We know from past research that koalas will

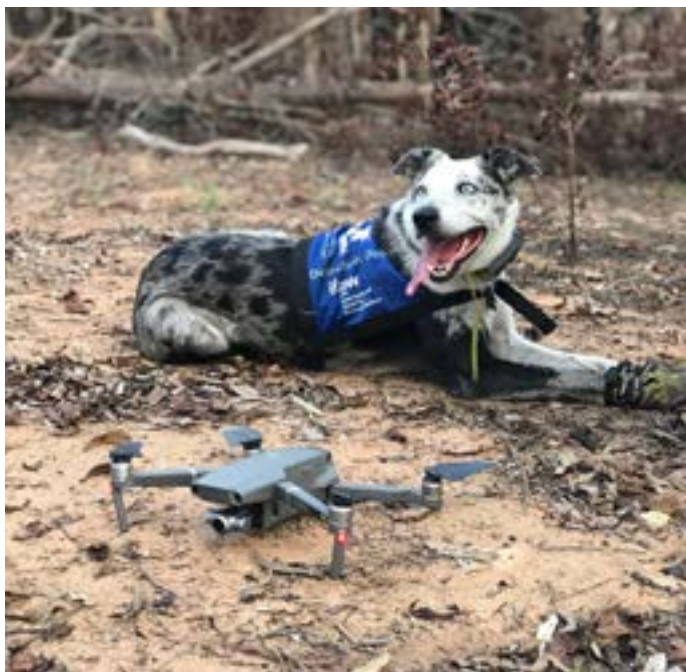


Photo: © IFAW

IFAW X UniSC koala detection dog Bear with a drone to help locate koalas and help with critical koala research.

return to fire-affected habitats within months after the fires as the forest regenerates. What we know little about is the short-term and long-term health consequences this has on koalas given they're likely to experience starvation, malnutrition, dehydration, and difficulties with thermoregulating (maintaining their internal body temperatures).

By understanding the health resilience of koalas after fires we can identify at-risk populations, know when to take necessary intervention steps, and develop better conservation strategies in the long-term. We can then begin to understand what it is in their environment that's causing them to struggle and how we can improve their wellbeing. Thermal drones also play a critical role in wildlife rescue and research because heat-detecting cameras can scout for signs of life among

scorched treetops and land that the human eye can't see. While dogs can pinpoint scent very accurately, they're still searching on foot followed by their human handler. Heat-detecting drones take our search into the sky, increasing our coverage and giving us a bird's eye view of the ravaged land and any survivors among it.

UniSC researchers have tested and refined heat-seeking drones and now deploy live-feed thermal imagery for real-time koala detection. This non-invasive technology has been reported to be more than three times more efficient in finding koalas than the traditional method of spotlighting. The UniSC team also had access to scats that were collected by ANU from some of the koalas who were rescued and later released at Two Thumbs Wildlife Trust Sanctuary.

Our work with UniSC hasn't stopped as we continue to identify and assess key at-risk koala populations - dogs and drones are key to this important work.



Photo: © IFAW

125 innovative multi-species Habitat nest boxes have been installed so far at Two Thumbs Wildlife Trust Sanctuary to provide homes for hollow dependent animals like the endangered greater glider.

Providing homes for wildlife

Two Thumbs Wildlife Trust Sanctuary was once a wildlife haven, home to a unique population of koalas as well as hundreds of other species. The Black Summer bushfires not only saw the devastating loss of many koalas, it also lost important tree hollows (estimated up to 10,000) that were habitats for so many other species.

Many Australian mammals, birds, reptiles, and frogs are reliant on these natural formations for nests, roosts, den sites, and predation protection.

As a result, surviving hollow-dependent animals were left homeless. The forest floor was charred and ground-dwelling animals like dunnarts, antechinuses, echidnas, and reptiles also lost their homes.

“These animals were left homeless after the fires and we’re building hollows so they can return to the place they once called home. Birds and gliders have already been captured on camera using the nest boxes. If you build it, they will come,”

IFAW Wildlife Campaign Manager Josey Sharrad.

Small hollows for feathertail gliders and pygmy possums take over 100 years to form naturally. Larger hollows for glossy black cockatoos, forest owls, and greater gliders can take up to 400 years or more to form.

Without hollows, many Australian species cannot raise their young and repopulate. For animals like the endangered greater glider, adaptive management and innovative solutions are critical to species survival. Increasingly, such species are being adversely impacted by climate change, deforestation, and land degradation. Australia has the worst mammal extinction rate in the world and that is why intervention is desperately needed at Two Thumbs to provide:

- **Homes for threatened hollow-dependent species while eucalypt trees regenerate and grow.**
- **Remediation of land and water degradation to improve condition and resilience.**

That’s why IFAW partnered with Habitat Innovation and Management. We are giving nature a helping hand by installing innovative, ready-to-move-in Habitat modular nest boxes.

These aren’t run-of-the-mill timber nest boxes. They have been cleverly designed to mimic natural hollows. They are forever homes for wildlife. They come in different sizes, uniquely designed for creatures great and small. Some can even house different non-competing species such as birds and microbats who would naturally co-habit in the same tree.

So far, with your support, we have been able to successfully install 125 Habitat nest boxes providing supplementary tree hollows for native wildlife including several species of glider (squirrel, feathertail, Krefft’s and greater), birds including crimson rosellas, microbats and possums.



Photo: © IFAW

An echidna captured on camera using the new den. In a world-first, the team recently installed 20 innovative dens to encourage small to medium marsupials like native quolls, bandicoots, antechinus, and echidnas to set up home.



▶ **Scan me**

Scan the QR code with your phone to see the team install a marsupial den at Two Thumbs Wildlife Trust Sanctuary. Or watch it at <https://qrco.de/beXrvR>

An important component of this work is monitoring and evaluation so cameras were installed on a number of the nest boxes to capture evidence of species usage.

We prioritised installing boxes in areas where we sighted gliders and birds. An endangered greater glider was spotted on the first night of our initial survey, which was a promising sign.

“Greater gliders are extremely sensitive to fire so to spot one is a huge win for this bushfire-impacted property and really exciting especially given they’re now listed as endangered,”

Habitat Innovation and Management Director Carl Tippler said.

The team also carved out natural hollows to provide homes for smaller animals. This is done by cutting dead branches and utilising internal hollows rather than cutting into the tree trunk, retaining its integrity.

An additional focus of this project was the remediation of land and water degradation, with a focus on restoring and protecting the areas of swampy meadow on the property.

Quick facts about our recovery work so far:

- ▶ 125 nest boxes installed, including 20 multi-species boxes.
- ▶ 20 natural hollows carved.
- ▶ 20 marsupial dens installed.
- ▶ 5 raptor platforms constructed.
- ▶ 2,000 native grasses and trees planted.
- ▶ 16 different species have checked out the new digs so far.

Innovative wildlife dens

The team has also installed 20 dens to encourage small to medium ground-dwelling animals like native quolls, bandicoots, antechinus, and echidnas to set up home.

These dens provide a ready-to-move-in solution and provide a refuge from climate-related events. Rocks and sticks are placed onto the dens to camouflage them into the landscape and to insulate them, so they stay cool in summer and



Several raptor nesting platforms were constructed to provide safe sites for the large birds to create nests. Experts believe that every raptor nest would have been burnt during the Black Summer bushfires.

warm in winter. They even have a ‘mezzanine’ level for smaller critters to take refuge off the ground from predators.

“Spotted-tail quolls have been sighted by locals in the region and the pre-fire habitat at Two Thumbs would have been suitable to support these native predators. The installation of Habitat marsupial dens is a world first providing important refuge sites and allowing the quolls to repopulate the sanctuary,”

Habitat Innovation and Management Director Mick Callan said.

Within days of installation, a host of different animals came to inspect the new digs, including echidnas, a Cunningham’s skink, brushtail possums, antechinuses, and a common dunnart. An eastern pygmy possum, which is a threatened species also showed interest.

Raptor platforms in the sky

Every raptor nesting site was also destroyed by the blazes.

In a bid to attract these important apex predator birds, we constructed five raptor nesting platforms. Mimicking how raptors build their nests in nature, time was taken to pick the right

tree in the right location and dead branches were used to construct a large platform with easy fly-in access.

The platforms will benefit everything from the biggest raptors like wedge-tailed eagles to smaller ones such as the little eagle, brown falcon, brown goshawk, collared sparrow hawk, Australian hobby, and peregrine falcon.

The future of Two Thumbs

As we recently commemorated the fourth anniversary of that tragic day, we reflected on the positive progress already made to recover the landscape and promote the return of native wildlife at Two Thumbs. While there is still much to be done, the recovery efforts give us hope as we look to further restore and protect this very special sanctuary and the animals that call it home.



Photo: © Habitat Innovation and Management

An endangered greater glider was spotted on a thermal camera at Two Thumbs Wildlife Trust Sanctuary during a research trip in 2022.

“I’ve noticed a clear difference in the past year. For years after the Black Summer bushfires, it was a ‘ghost forest’—the movement and music of birds and animals was missing. It is still a long road ahead, but now birds are singing, koalas are bellowing, and sounds of life can be heard again,”

James Fitzgerald said.

The hollow deficit at Two Thumbs is indicative of the larger housing crisis Australian wildlife is facing all over the country. Black Summer dealt a deadly blow to the already dwindling number of suitable trees left for animals to live in. Millions of old-growth trees were burned, along with their inhabitants.

“It is heartening to see the sanctuary slowly coming back to life. We’re already seeing other endangered animals return to this incredibly diverse property including koalas – which gives us hope for the future of those species and for this sanctuary to return to what it once was,”

IFAW Wildlife Campaign Manager Josey Sharrad.

When old hollow-bearing trees are burned or cut down, they won’t regrow in our lifetimes. Many animals depend on these trees, including about 40 threatened species like the glossy black cockatoo and greater glider.

We cannot continue on this path, particularly with climate change fueling more frequent and intense fires. We need to stop cutting down native old-growth trees and do everything we can to protect our forests and the animals that call them home.

With your support, we will continue to work from the ground up to ensure that wildlife repopulates this vast landscape and others across Australia. Thank you for helping to make this critical work possible. Without the kindness and generosity of you and our wonderful IFAW supporters, Two Thumbs Wildlife Trust Sanctuary wouldn’t be where it is today.

Every one of us has a part to play in securing a future for our native wildlife and the places they call home. It’s up to us to lay the seeds that will lay the firm foundation upon which to sustain our future. Every koala matters, every person matters and every tree matters. Thanks to you, we’ve safeguarded numerous endangered species through your support for this vital project.

Thank you so much for your incredible support which has allowed us to continue to restore Australia and care for local wildlife and the place they call home.



Eastern grey kangaroos at a soft release site at Two Thumbs Wildlife Trust Sanctuary after being rehabilitated.

You also can help save wildlife near you!

If you have found a sick, injured, or displaced animal, the free IFAW Wildlife Rescue app connects you with the closest licensed wildlife rescue group at the touch of a button. It also helps identify roadkill hotspots to inform preventative measures.

The app is available nationally.

Scan the QR code to download the free app now.



We would like to acknowledge all of our supporters who have chosen to leave their lasting legacy to the animals through a gift in their Will. 1 in 5 animals are rescued and protected thanks to these wonderful gifts.



IFAW acknowledges the Traditional Custodians of country and their connection to land, waters and culture. We pay our respects to their Elders, past and present

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