



AUSTRALIAN WILDLIFE & NATURE RECOVERY FUND

RESPOND, RESTORE, AND BUILD A RESILIENT FUTURE

APRIL 2022
FINAL REPORT

A SUMMER LIKE NO OTHER

The scale of Australia's bushfires during the summer of 2019-2020 was unprecedented and catastrophic. Thirty-three people tragically lost their lives, 3,094 homes were lost, and the impact on forests and wildlife was immense. Over 29 million acres of forest and woodlands were burned, pushing many threatened species, including the koala, to the brink of extinction. So much was lost, and the impacts will be felt for years to come.

In January 2021, we estimated that 1.25 billion animals may have been killed by the fires. We now know that the actual number is shockingly higher. Six months after the fires, we published a report, Australia's 2019-2020 Bushfires: The Wildlife Toll, which estimated that nearly 3 billion animals perished or were displaced by the fires.

The global response to this crisis was immediate. Thanks to you and other supporters around the world, **we raised \$50 million for the WWF Australian Wildlife & Nature Recovery Fund**, with \$9 million coming from the US alone. Your generous support, in particular, enabled us to act quickly and at scale to get emergency funds to the frontline, mobilize resources to help Australia's wildlife, help local communities adapt and recover, and plan the essential work needed to get Australia's wildlife on the road to recovery once the fires were out.

This is the final report summarizing the impact of your generosity.





WWF AUSTRALIAN WILDLIFE & NATURE RECOVERY FUND

In response to the bushfire devastation of 2019-2020, WWF launched the Australian Wildlife & Nature Recovery Fund to deliver swift and coordinated recovery at scale. As a result of worldwide support, we were able to:



RESPOND

Respond to the needs of fire-impacted species with urgency.



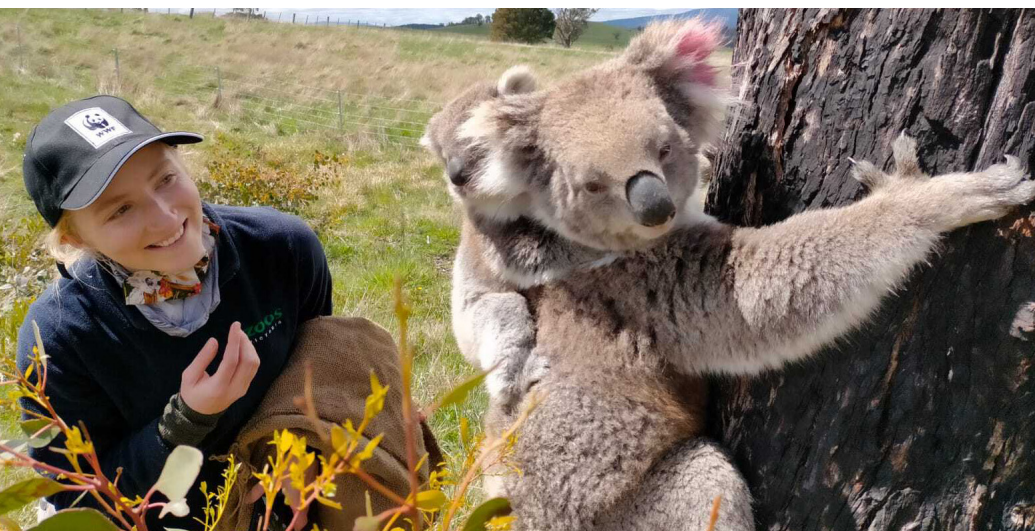
PROTECT

Protect what remains and deploy interventions that mitigate the frequency and severity of current and future fires.



RESTORE

Restore scorched landscapes, drawing upon leading climate adaptation science so that Australia's nature can flourish long into the future.



COVID-19 IMPACTS

Travel restrictions and lockdowns in Australia during the COVID-19 pandemic have significantly impacted interstate travel and delayed some on-the-ground activities, including workshops. Despite these delays, we have continued to work with our partners to adapt and deliver meaningful impact.

WWF AUSTRALIAN WILDLIFE & NATURE RECOVERY FUND

THEMATIC ALLOCATION OF THE BUSHFIRE FUND



WILDLIFE RESPONDERS

Partnered with on-the-ground wildlife response organizations to enhance Australia's capacity to care for wildlife impacted by bushfires.

54 PROJECTS SUPPORTED THROUGH FUND

\$6 MILLION



SPECIES RECOVERY & ADAPTATION

Identified key species in high-risk landscapes and implemented solutions that will better enable resilience to a changing climate.

52 PROJECTS SUPPORTED THROUGH FUND

\$9 MILLION



LANDSCAPE RESTORATION & PROTECTION

Protected critical habitat by sharing advice, accelerating reforestation plans, and working to restore what we have lost with urgency.

33 PROJECTS SUPPORTED THROUGH FUND

\$6 MILLION



WILDLIFE & CLIMATE LAWS

Advocated to enhance the effectiveness of Australian law in protecting the natural environment.

11 PROJECTS SUPPORTED THROUGH FUND

\$2 MILLION



GLOBAL CLIMATE EMERGENCY

Collaborated with others around the world and shared best practices in climate disaster response to better prepare for future emergencies.

5 PROJECTS SUPPORTED THROUGH FUND

\$3 MILLION



STABILIZE CLIMATE CHANGE

Drew on leading climate science to assist in mobilizing critical interventions to help stabilize our climate.

29 PROJECTS SUPPORTED THROUGH FUND

\$8 MILLION



INDIGENOUS ENGAGEMENT

Enhanced engagement with Indigenous fire managers by incorporating traditional knowledge into natural resource management.

39 PROJECTS SUPPORTED THROUGH FUND

\$10 MILLION



INNOVATION & ENGAGEMENT

Supported global innovation, using Australia as an example for regenerative solutions capable of maximum impact.

8 PROJECTS SUPPORTED THROUGH FUND

\$6 MILLION

TOTAL AMOUNT RAISED: \$50 MILLION



RESPONSE PHASE I

Respond with Urgency

The bushfires that Australia experienced in the summer of 2019-20 were truly devastating. The world witnessed the horrific images of koalas, kangaroos, and other iconic Australian wildlife as they tried to escape. Those that survived were left with little shelter, food, or water.

In a disaster of this scale, no one organization can meet the needs of all the wildlife across the country. WWF partnered with over 40 wildlife rescue and care organizations in bushfire zones, while directing immediate and urgent funds to respond to the emergency.

This included:

URGENT CARE: Supported veterinarians who provided urgent care and medical treatment to injured wildlife across Australia.

FOOD AND WATER: Provided starving wildlife with food and water in bushfire impacted regions.

FINDING KOALAS AND OTHER FIRE-AFFECTED WILDLIFE: Deployed koala detection dogs and drones to bushfire sites to search for surviving koalas and conduct rapid threatened species assessments.

SUPPLIES AND TRIAGE: Secured veterinary supplies for bushfire triage sites.

WHAT IT TAKES TO FEED THE STARVING: AN INSIDE LOOK AT THE FOOD DROP PARTNERSHIP WITH WILDCARE

During the dry season of 2019, bushfires burned more than 91,000 acres of Tallaganda National Park and threatened surrounding communities. As the fires spread across the dry bushland, they destroyed existing food, habitat, and natural corridors. The huge numbers of animals living within the blackened landscape were facing starvation and many suffered from burnt feet and whiskers, which impacted the animals' ability to find food. Native wildlife rescue groups predicted that wildlife in bushfire areas could need food drops for the next year.

Wildcare, a wildlife rescue organization in the state of New South Wales, was quickly dispatched to provide support to injured and displaced wildlife in the affected region. They organized teams to tackle the challenge: two recovery teams focused on rescuing injured wildlife, a rehabilitation team provided physical support to the surviving animals, and a support team organized supplies to keep the operation running smoothly.

At the peak of the bushfire response, Wildcare's food drops cost more than \$6,000 a month – an expense the organization could not bear for long. But thanks to WWF supporters, the feeding program was secured, giving Wildcare the chance to continue distributing hay, fruit, vegetables, pellets, and additional native vegetation to 40 rural properties bordering the national park.

Top to bottom – WWF partnered with Foodbank Australia and Woolworths Supermarkets to help make an immediate impact on the lives of vulnerable native wildlife as part of the New South Wales Government's aerial food drop program © WWF-Australia / Veronica Joseph;

The food drop targeted brush-tailed rock wallabies in the Blue Mountains, impacted by the Gospers Mountain megafire in December 2019 © WWF-Australia / Veronica Joseph





WILDLIFE CARE IN THE NORTHERN RIVERS REGION

The Northern Rivers region of New South Wales is one of Australia's biodiversity hotspots. Home to many of the nation's unique, rare, and threatened animals, it is a place of international significance. Despite its incredible biodiversity, there is no static hospital to treat sick and injured wildlife in this region. Due to the limited qualified wildlife veterinary care in the Northern Rivers, sick and injured animals are often transported to Currumbin Wildlife Hospital in Queensland – a trip that usually takes over an hour – or local vets deal with the animal as best they can on their own. Sadly, this often results in low survival rates for already threatened species.

The impacts of deforestation and drought had already taken a toll on the animals of this region when the catastrophic 2019-2020 bushfires hit, making the need for a fully equipped local facility even more urgent. WWF is working to ensure that no injured animal must travel more than two hours to receive veterinary care. To achieve this, we are bolstering the capacity of wildlife hospitals in priority areas, starting with hospital upgrades, a mobile veterinary unit, and a new state of the art wildlife hospital.

Thanks to your support and the help of the WWF Network, we are establishing a new, fully-equipped wildlife hospital in the Northern Rivers region. This will ensure more native animals get the professional treatment they need, as soon as they need it. The Byron Bay Mobile Wildlife Hospital operates from a customized semi-trailer sized veterinary hospital that can be rushed to wherever a wildlife emergency is. They operate year-round and can respond quickly to treat injured and traumatized wildlife, greatly improving the outcomes of injured animals across the underserved region.



Top to bottom – Dr. Prishani Vengetas attending to an injured tawny frogmouth with the vets at Byron Bay Mobile Wildlife Hospital © WWF-Australia / Free Vreman;

Aerial view of the Byron Bay Mobile Wildlife Hospital © WWF-Australia / Patchworks

RESPONSE PHASE II

Protect and Restore Wildlife and Landscapes

The devastation to Australia's natural environment caused by the bushfires is unprecedented and the recovery work ahead is immense.

In Phase II, WWF will:

ASSESS THE LOSS through an ongoing study of the impacts on wildlife and habitats

RESTORE WILDLIFE HABITAT and protect what remains from deforestation through the Towards Two Billion Trees initiative

SUPPORT INDIGENOUS AND RURAL FIRE MANAGEMENT

Phase II of the response has grown into a larger program of work aimed at improving the long-term resilience of the Australian environment in the face of climate change. Realizing the scale of the climate challenge, WWF-Australia developed a long-term vision and program of action, Regenerate Australia, to restore and protect nature. Your support is the foundation for this work; all projects approved for support through the Australia Wildlife & Nature Recovery Fund will serve as the basis for future large-scale and coordinated recovery across the country.





USING DRONES TO SEED AND RESTORE NATIVE KOALA HABITAT

WWF has an ambitious goal – to double wild koalas across eastern Australia. To achieve this, large-scale restoration of degraded landscapes is essential. Your support allows us to test and validate innovative technology used to help koalas recover, including seed drones used to plant trees and connect a network of wildlife corridors along the east coast.

In November 2021, we completed our first drone seeding trial with AirSeeds Technologies to directly seed 27 acres as part of a larger corridor revegetation project. High-tech drones spread millions of seeds within a few hours to plant a new koala corridor with over 40 different plant species – including native grasses and shade trees such as blue gums, iron barks, melaleucas, and acacias. Traditional planting methods take an army of people and might see 800 seedlings planted in a day. Each drone can plant 40,000 seedlings per day. In around 10 minutes of flying time, we can plant up to 1,000 seed pods. While this technology cannot fully replace manual planting, it gives us an opportunity to take on larger restoration projects.

As one of the first drone seeding projects of its kind in Australia, the trial presents an opportunity to uncover more efficient ways to plant trees. WWF's initial investment in this technology is laying the foundation to scale the work up across eastern Australia. We have already seen new financing from state governments in drone seeding technology in the past six months.



Top to bottom – Koala mother with her joey in a tree © WWF-Australia / Kita Ashman;

A high-tech drone spreads millions of seeds in just a few hours to plant a koala corridor west of Brisbane. It's one of the first times in Australia drone technology has been used to create koala habitat © WWF-Australia / Patrick Hamilton

FIGHTING FIRES: RE-ESTABLISHING INDIGENOUS BURNING PRACTICES IN SOUTHEAST AUSTRALIA

In southern Australia, WWF is helping to establish a strong foundation for fire management by providing pathways for Indigenous and non-Indigenous fire managers to share knowledge and build capacity. Through our bushfire work, we have formed new relationships with Traditional Owner groups that have developed into long-term, impactful partnerships. We partnered with Firesticks Alliance to build and strengthen a network of Indigenous cultural fire practitioners. Firesticks Alliance is an Indigenous-led organization in Australia that facilitates learning pathways that enable and empower Indigenous communities to work together towards healthy and resilient landscapes. They support communities across the country to deliver mentoring and training programs on traditional fire and land management practices.

Firesticks Alliance held their first virtual conference in December 2020, bringing together over 180 Indigenous and non-Indigenous fire practitioners, agencies, and researchers from Australia and across the globe to explore pathways for supporting Indigenous cultural fire practice to protect country, revive culture, and sustain biodiversity. Holding these sessions online has allowed people from many different landscapes to connect and share in-depth knowledge about community-led cultural fire projects happening in their network across Australia. This partnership is part of a large-scale collaboration to develop and roll-out a coordinated and complementary program of activities to model fire management in southeastern Australia.

WWF's support has helped Firesticks Alliance bring together a diverse range of people through a series of workshops. These workshops provide community members with the opportunity to share and discuss fire management practices and next steps to managing important landscapes on the east coast of Australia. While workshops began in 2008, support from the Australian Wildlife & Nature Recovery Fund has allowed them to expand, from 30 people to thousands of Indigenous community partners and participants.

Top to bottom – Fire management knowledge sharing between WWF and the District Local Aboriginal Land Council Durrunda Waajarr Rangers © WWF-Australia;

Bushfire moving at night through the eucalyptus forest in the Jamison Valley, Blue Mountains © WWF-Australia / Andrew Merry / Getty Images





RESPONSE PHASE III

Future-proof Australian Society

Months after the last fire went out, we are still counting the cost of the damage and loss to wildlife and habitat. To protect the future of our forests and wildlife and to prepare for fire seasons to come, Australia must deliver a national wildlife and nature recovery plan.

To do this, we will:

Work with governments to strengthen climate policy and biodiversity laws.

Support long-term conservation efforts for Australia's native wildlife.

Ensure Australia's precious natural resources are protected.

Explore innovative solutions to help mitigate the impacts of climate change.

NEXT GENERATION NEST BOXES FOR GREATER GLIDERS

Found in the eucalyptus forests of eastern Australia and strictly nocturnal, the greater glider is the largest gliding marsupial in the world. Greater glider populations have been severely impacted by ongoing logging and climate change, including recent catastrophic fires. The 2019-2020 bushfires burned close to one-third of all greater glider habitat nationwide and put former strongholds for the species, like East Gippsland, in danger of decline. Research by the Australian state of Victoria found that the population of greater gliders in East Gippsland has declined by 50% in the last 20 years, higher than the decline of all other arboreal species in this region.

In collaboration with Greening Australia and leading researchers from the Australian National University, we are working to design, test, and deploy next-generation nest boxes to speed up the recovery of hollow-dependent species by providing shelter in a warming, fire-prone climate. Nest box prototypes have been trialed in controlled labs at Australian National University to ensure that the model is longest-lasting, fire resistant, and thermally appropriate. The team is now finalizing the design and scoping out potential deployment sites.

By providing new artificial habitats and improving connectivity, we hope to speed up the recovery and recolonization of greater gliders in burnt areas, while also developing an innovative and scalable recovery method that can be implemented elsewhere by local government, communities, and research groups.



Top to bottom – Paul Hogarth installing a nest box on a property impacted by the bushfires © WWF-Australia / Leonie Sii;

Greater glider in a patch of old growth forest in Munruben, Logan City, south of Brisbane © WWF-Australia / Josh Bowell



REGENERATE AUSTRALIA

The impact of the 2019-2020 bushfires brought into sharp focus the importance of conservation. It is evident that solution-focused, science-based, and community-engaged projects and strategies are needed as we move forward. Since the inception of the Australian Wildlife & Nature Recovery Fund, our work has moved from emergency bushfire response – like restoring fire-affected landscapes – to preparing for future climate events. Most recently, WWF launched a five-year comprehensive campaign, **Regenerate Australia**, designed to address current needs and mitigate future catastrophic events.

WWF continues to work with a diverse range of partners including community-based groups, universities and research institutions, Traditional Owners groups, local governments, state government agencies, and businesses. We now partner with 189 other organizations, supporting their efforts both financially and technically to deliver impact.

GREENING AUSTRALIA

WWF partnered with Australian environmental organization, Greening Australia, on a multi-year plan of action to deliver national climate-ready restoration. United by our joint commitment to bushfire recovery, nature conservation, climate resilience, and innovation, this collaboration marks a significant milestone in Australia's pathway to mainstreaming nature-based solutions. Support provided through the Australian Wildlife & Nature Recovery Fund has kickstarted our initial projects, including restoring a 247-acres site in southern Australia.

THANK YOU

Your generous support helped to make this critical work possible. Together, we responded to the 2019-2020 bushfire crisis and are helping to secure Australia's natural resources for people and nature well into the future.

To learn more, please visit worldwildlife.org/AustraliaBushfireFund





PHOTO CREDITS

Cover: A mother Eastern grey kangaroo (*Macropus giganteus*) and her joey, surrounded by burnt trees in Mallacoota, Australia, January 2020 © naturepl.com / Jo-Anne McArthur / We Animals / WWF

Page 2: Image of Australian bushfires in New South Wales © WWF / Shutterstock / Karl Hofman

Page 3: Top to bottom – An orphaned swamp wallaby joey that is now in the care of wildlife caretaker Erika Page © WWF-Australia / Leonie Sii; New South Wales Rural Fire Service fighting bushfires in New South Wales © WWF-Australia / James Manning; Dr. Kita Ashman, Threatened Species and Climate Adaptation Ecologist, WWF-Australia just after releasing a koala mother with joey © WWF-Australia / Desley Whisson

Page 4: Top left to right clockwise – Minty, an injured possum that suffered burns to all four of his paws and his tail from bushfires in care with Wildcare in Carwoola, NSW © WWF-Australia / Matthew Harris; Koala and joey in tree © WWF-Australia / © Dominik Rueß - stock.adobe.com; Aerial of the Kangaroo Island bushfire aftermath. WWF provided urgent support to Kangaroo Island Land for Wildlife to save the endangered Kangaroo Island glossy and Kangaroo Island dunnarts © WWF-Australia / Leonie Sii; New South Wales Rural Fire Service fighting bushfires in New South Wales © WWF-Australia / James Manning; Wildcare and WWF staff in the bushfire impacted forest in Tallaganda National Park © WWF-Australia / Leonie Sii; Bushfire in Bowraville, New South Wales, November 2019 © WWF-Australia / Adam Dederer; Bushfire in Bowraville, New South Wales, November 2019 © WWF-Australia / Adam Dederer; Detection dogs, Taz (left) and Missy (right) both English Springer Spaniels, were deployed in fire-affected areas to conduct assessments on koala habitat © WWF-Australia / Veronica Joseph

Page 5: Juvenile flying foxes in care with Dr Anne Fowler, Adelaide SA © WWF-Australia / Leonie Sii

Page 6: Top to bottom – WWF has partnered with Foodbank Australia and Woolworths Supermarkets to help make an immediate impact on the lives of vulnerable native wildlife in bushfire as part of the New South Wales Government's aerial food drop program © WWF-Australia / Veronica Joseph; The food drop targeted brush tail rock wallabies in the Blue Mountains, impacted by the Gospers Mountain megafire in December 2019 © WWF-Australia / Veronica Joseph

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Page 10: Top to bottom – Environmental restoration work and fire management knowledge sharing between WWF and the District Local Aboriginal Land Council Durrunda Waajarr Rangers © WWF-Australia; Bushfire moving at night through the eucalyptus forest in the Jamison Valley, Blue Mountains © WWF-Australia / Andrew Merry / Getty Images

Page 11: The aftermath of the devastating bushfires near Surfs Beach in the Shoalhaven region which ripped through on New Year's Eve 2019 © WWF-Australia / Leonie Sii

Page 12: Top to bottom – Paul Hogarth installing a nest box on a property impacted by the bushfires © WWF-Australia / Leonie Sii; Greater glider in a patch of old growth forest in Munruben, Logan City, south of Brisbane © WWF-Australia / Josh Bowell

Page 13: Koala (*Phascolarctos cinereus*) mother with joey aged eight months, Queensland, Australia © WWF / Nature Picture Library / Suzi Eszterhas

Page 14: A kangaroo that survived the fires in Latham Conservation Park, Australia © WWF-Australia / Paul Fahy

Page 15: Australian bushfire in Jervis Bay, January 2019 © WWF-Australia / Bryce Harper