NSW GOVERNMENT

SAVING OUR SPECIES

Year in Review 2020–21

environment.nsw.gov.au/sos

Contents

Introduction 4

1. 2020–21 at a glance 5

2. On-ground projects 7

3. Program delivery 10

4. Science and research 13

5. Partnerships 16

6. Raising awareness in the community 21

7. The future of Saving our Species 24

8. More information 25

Introduction

2020–21 saw our community and natural environment come under increasing challenges, from lockdowns and health restrictions impacting our daily lives, to extreme weather and flooding events. Despite these challenges, our commitment and passion for conservation and managing the critical threats to our native plants and animals remains as strong as ever. We continue to adapt, innovate and find new ways to continue our mission to maximise conservation of threatened species in NSW.

Saving our Species (SoS) is the centrepiece of the NSW Government's strategy to conserve threatened species. Alongside the NSW Koala Program, it is the largest commitment to threatened species conservation in our state's history. It has created a movement bringing together volunteers, scientists, businesses, community groups and the NSW Government under the one banner.

SoS provides a framework that aims to increase the number of NSW threatened species that are secure in the wild for the next 100 years, and control the key threats facing threatened plants, animals and ecological communities. We work to secure as many species and ecological communities as possible by using a prioritisation framework, guided by cost effectiveness and research.

1 Saving our Species 2020–21 at a glance



No other program in Australia, government or non-government, has ever provided such a comprehensive, coordinated and cost-effective approach to threatened species management

Investments overview in 2020-21

SoS operating	$11,196,379
SoS labour	$7,458,712
EES[1] cash	$1,800,992
EES[1] in-kind	$5,017,821
NSW Government cash	$3,221,726
NSW Government in-kind	$5,214,559
External cash (includes program partners)	$4,208,220
External in-kind	$5,580,194
Total investment	**$43,698,603**

[1] Environment, Energy and Science group of the Department of Planning and Environment (DPE)

Key achievements

409 threatened plants, animals and ecological communities were invested in and actively managed (370 species, 39 ecological communities)

16 key threatening processes were under strategic research and management

1039 sites in NSW with active SoS projects

89% of species SoS are investing in are on track to survive the next 100 years (species from site-managed, iconic and population management streams only)

229 external and NSW Government partners contributing **$18.2 million**

Case study

Record number of threatened orchid sites found in southern NSW

The SoS program is constantly gathering crucial information about our threatened species, including the discovery of new populations, and sometimes entirely new species. In southern NSW, the SoS program has discovered over 45 new populations for more than 20 threatened plant and animal species since 2016.

In late 2020, a new population of 170 critically endangered pot-bellied greenhood orchids *(Pterostylis ventricosa)* was discovered at a new site in the Southern Highlands, resulting from the above-average rainfall during that year.

Unearthing these 170 orchids at a new site is an example of the positive impact SoS is having on the state's biodiversity. Once a new population of a rare species is located, we then work in partnership with the landowners to help ensure its safety.

Knowing about new populations can better inform us about the habitat requirements of these species and their threats, giving us a greater chance to save a species in the wild.

In 2020–21 threatened species experts in south-east NSW also found new populations for another 10 threatened orchid species:

- pretty beard orchid
- Kangaloon sun orchid
- Illawarra greenhood orchid
- Tarengo leek orchid
- East Lynne midge orchid
- superb midge orchid
- buttercup doubletail
- rhyolite midge orchid
- Tallong midge orchid
- crimson spider orchid.

See the 'More information' section at the end of this document for links to the NSW threatened species profiles for these species.

SoS puts experts in the field for on-ground monitoring and threat management work. Without this, these species might have been lost to the world before they were even known.

Saving our Species

2 SoS working on-ground — where it matters most

Responding to a changing climate

Bushfire recovery

In response to the devastating 2019–20 bushfires in NSW, SoS undertook 382 fire management actions for more than 160 species and ecological communities in over 40 local government areas. Much of this work was post-fire surveying, and in some cases, these monitoring actions increased in frequency so we could better analyse the fire impacts.

The response and interventions from SoS, the National Parks and Wildlife Service (NPWS) and other partners in the immediate aftermath of the bushfires proved vital in helping impacted species and habitat. Further planning and analysis is underway to ensure SoS is better prepared to respond to such emergencies in the future.

The impact on threatened plants and animals

There are always winners and losers when it comes to plants after fire. For some species, the short time between fires appeared to have exhausted the seed bank. However, for others, we saw evidence of their ability to resist and persist in the event of a fire, and even depend on fire for their long-term survival, due to fire and smoke stimulating the breaking of seed dormancy.

Examples of mass germination post-fire included the yellow solanum, a rare plant only found in the Manning Valley on the mid-north coast. Post-fire surveys in late 2020 revealed its population had increased from just 600 to more than 20,000 plants. The intensity of the fires kick-started germination that would have otherwise taken years to happen.

Following the 2019–20 bushfires SoS feared the worst for many fauna species; however, in some cases we were surprised and delighted by reports of survival and recovery.

Surveys in spring 2020 of the Mount Kaputar land snail and slug threatened ecological community (TEC) located a large number of snail species, including many juveniles. Populations of most of the species in this TEC appeared to be recovering well, aided by above-average rainfall in the region.

Case study

Hope for Hastings River mouse after fire

The Hastings River mouse *(Pseudomys oralis)* was one of the most severely impacted endangered species in the 2019–20 bushfires.

Over 80% of its known habitat burnt with such high intensity that ecologists feared the worst. Through a partnership between Local Land Services (LLS), NPWS and SoS, funded by the Australian Government's Wildlife and Habitat Bushfire Recovery Program, we undertook trapping surveys in 2020–21 to identify how badly the Hastings River mouse was affected.

Most of the survey sites had been burnt. At one site, Mount Hyland Nature Reserve near Dorrigo on the New England plateau, 6 Hastings River mouse individuals were captured, comprising juveniles and adult males and females. This indicated the presence of a healthy breeding population. It was the highest number of Hastings River mouse individuals caught at a site since the surveys began in October 2020.

SoS threatened species officers were filled with hope after the discovery and thought it likely that individuals had survived by finding refuge in rocky gorges and patches of unburnt terrain. Substantial post-fire rainfall had also stimulated excellent groundcover and foraging.

The survey findings have helped increase our knowledge of the species' ability to withstand severe wildfire and the actions required to best conserve it.

Climate change research

New research projects were launched to help us better understand how threatened mammals respond to fire.

Just one example is a 3-year study looking at how the 2019–20 fires impacted several threatened mammal species in north-eastern NSW, including the parma wallaby *(Macropus parma*), red-legged pademelon *(Thylogale stigmatica*) and long-nosed potoroo *(Potorous tridactylus)*. The study is led by the University of Newcastle, with input from SoS experts, and will contribute to a greater understanding of how fire affects these species' population dynamics, habitat use, diet, stress and more. This research was funded under the Australian Government's Bushfire Recovery Fund.

Drought and floods

Seasonal conditions varied over the year and differed between regions, but across much of NSW there was significant rainfall, which had a positive impact on many species, particularly those recovering from fire. At the end of June 2020, nearly 87% of NSW was in one of 3 drought categories, but by June 2021, 94% of the state was not in drought or recovering from drought.

The rains also brought flooding of waterways and flash flooding in some parts of NSW during the year, which impacted more than 30 SoS projects. These impacts included delays to onground work, restricted access to sites, damage to infrastructure such as fences and, in a few cases, plant seedlings were washed away or buried by debris.

As weather conditions improved and safe access to flood-impacted sites became available, SoS made necessary repairs and maintenance and, in many cases, ensured rain events are part of the contingency planning for its conservation projects.

Saving our Species

3 Species and project highlights for 2020-21

Endangered wattle burnt by bushfire bursts back to life

Post-fire monitoring of the endangered Gordon's wattle *(Acacia gordonii)* showed that half of the shrubs had been lost at the largest SoS site near Bilpin; but, with this native shrub needing intense heat and fire to crack open its very hard seed pods, our experts remained cautiously hopeful. The team returned in August 2020 to find a 400% increase in the number of Gordon's wattle plants at this site, with the fires and subsequent rains creating the perfect conditions for this wattle to bounce back.

Bredbo gentian registered best season on record

The critically endangered Bredbo gentian *(Gentiana bredboensis)* is a tiny, annual plant known from only one small location east of Bredbo. For the past few years, fewer than 10 plants have existed within a 5 m x 5 m section of the total known habitat area, with half of the plant's habitat burnt in bushfires in January 2020.

SoS monitoring efforts in 2021 found 280 plants, mostly within the burnt area, making this the largest number of Bredbo gentians ever recorded. Many of the plants were even setting seed, some of which were collected and sent to PlantBank at Mt Annan to establish an insurance population.

World-first germination method for critically endangered orchids

A partnership between SoS and research scientists from the Royal Botanic Gardens Victoria has developed a world-first germination method to secure the future of 3 critically endangered orchids. The success of this germination trial paves the way for conservation of threatened orchids in NSW and around the world.

After 2 years of research the team has identified the germination techniques and specific mycorrhizal fungi required for propagation of these 3 critically endangered orchids: the variable midge orchid *(Genoplesium insigne)*, *Corunastylis* sp. Charmhaven and Wyong sun orchid *(Thelymitra adorata)*.

NSW endangered southern bell frogs leapt into limelight

SoS conservation biologists recorded hundreds of endangered southern bell frogs croaking in chorus in south-west NSW during March 2020.

Survey results indicated that this green and bronze amphibian, one of Australia's largest frog species, thrived over summer with carefully managed environmental water flows.

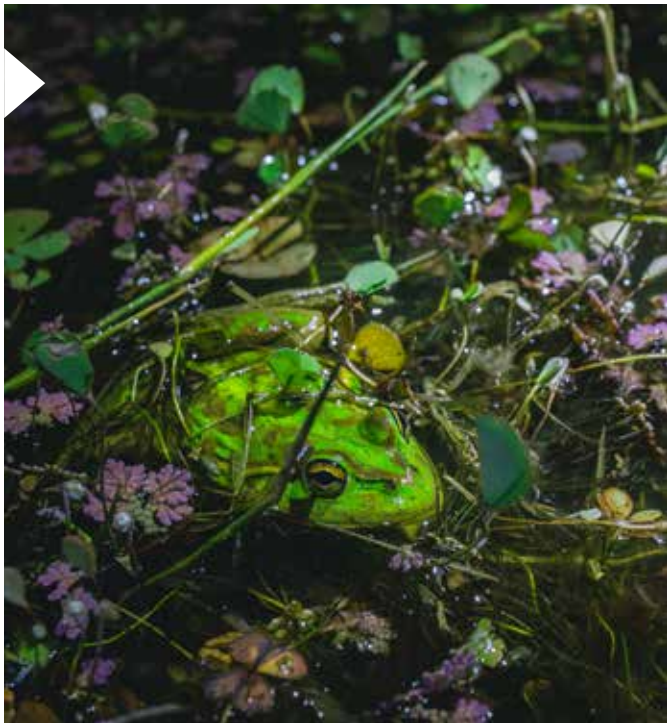
Bell frogs were calling in their hundreds at several sites near Hay and the presence of metamorph (young) frogs at several sites indicated it had been a successful breeding season. Frogs were heard from most of our 42 priority conservation sites this season and turned up at wetlands on private properties near Coleambally and Balranald, where they had never been heard before.

Rare photos confirm Illawarra's hidden spotted-tailed quoll population

SoS identified 52 individual spotted-tailed quolls in Barren Grounds Nature Reserve in June 2021, the highest number since monitoring began 5 years ago.

This survey, photo monitoring results and other on-ground conservation actions indicate that this quoll population, one of 4 monitored across NSW, is stable and possibly even increasing.

Each quoll is born with its own distinctive spot pattern and, like fingerprints, they're the best way to tell individual animals apart. In the most recent survey young and old males and females were caught, showing the population is a robust resident breeding population.



Case study

More endangered turtles returned back to Bellinger River

Over 30 critically endangered Bellinger River snapping turtles, bred at Taronga Zoo, were returned to their Bellinger River habitat in November 2020.

It is the only place in the world where they are found, but in 2015 a devastating virus wiped out 90% of the turtles in just 6 weeks. After a breeding program was rapidly developed, this release further boosts the population after earlier releases in 2018 and 2019, bringing the total number of turtles now released to 52.

Soon after the turtles were released, the Bellingen area and other parts of the north coast experienced heavy rain and flash flooding but monitoring of the released turtles by threatened species experts confirmed the turtles are safe.

Taronga Zoo staff used their expert skills to establish an insurance population to breed animals for the releases, with over 100 turtles now at the zoo's quarantine facility. A second insurance population has also been developed at Symbio Wildlife Park.

Radio transmitters were attached to the turtles, which will help locate them for regular monitoring by SoS threatened species officers.

Major partners on this project include Symbio Wildlife Park, Department of Primary Industries, Bellinger Landcare, OzGREEN, local community members and researchers.

4 Saving our Species
Science and research

Science and research are incorporated into every aspect of SoS. We constantly gather data and major program decisions are guided by strategic research, applying the best evidence available. In 2020–21, the SoS research program continued to address key knowledge gaps to improve the management and conservation of threatened species in NSW.

Funding/investment overview

In 2020–21 we invested a total of $483,567 in 21 science and research projects, completing a $2.5 million investment in science over 5 years, including leveraging an additional $1.2 million of grant funding from the Australian Research Council Linkage Program.

Our projects directly benefitted 187 threatened species including:

- 113 plants
- 50 TECs
- 18 birds
- 2 mammals
- 2 reptiles.

Research projects directly addressed 3 key threatening processes: ecological consequences of high frequency fires, invasion by exotic vines and scramblers, and herbivory and environmental degradation caused by feral deer.

Projects funded under the SoS Science and Research stream

- Assessment of Box Gum Woodland
- Pollination Systems as Indicators of Fire Regime Impacts
- Assessing Adaptive Capacity of Species in Threatened Ecological Communities
- Conservation of Threatened Groundwater Dependent Ecosystems

Read more about these and other science and research projects on our website.

Case study

Pollination systems as indicators of fire regime impacts

Dr David Mackay at University of New England is studying fire regime impacts on pollination systems.

The aim of this study was to measure pollinator networks, pollinator abundance and diversity, fruit to flower ratios in key species and examine the irreplaceability risk to mutualisms, to address the following questions:

- How do complex pollination systems respond to fire?
- How long does it take for pollinator communities to recover after severe fire?

The results provide information to better manage fire impacts on threatened species and communities including Beadle's grevillea *(Grevillea beadleana)* and the Howell Shrublands, an endangered ecological community.

Citizen science

Citizen scientists continued to play an integral part in SoS, by collecting and analysing valuable data.

- More than 2,800 citizen scientists contributed in excess of 12,800 volunteer hours – the equivalent of $382,420 of labour.
- They helped collect or analyse more than 2,287,000 items of data, including over 1,900 sightings of threatened species, and important information on species' track marks, nesting, breeding, drinking and habitat.

Volunteering virtually

Citizen science via the Australian Museum's DigiVol platform contributed a vast amount to this total, as 'virtual expeditions' continued to be popular. People from all over the world could volunteer digitally by analysing and transcribing images that had been captured via motion sensing cameras.

- More than 2,300 citizen scientists contributed 4,000 hours, with a total labour cost of $214,450.
- They carried out over 2.28 million transcriptions for SoS in 2020–21.

NSW Turtlewatch app helps improve citizen science sea turtle monitoring

NSW Turtlewatch is a partnership between SoS and Australian Seabird Rescue that engages citizen scientists to help monitor NSW beaches for nesting sea turtles and promote public awareness about threats.

The 2 species reported to nest along the coast in recent years are the vulnerable green sea turtle *(Chelonia mydas)* and endangered loggerhead turtle *(Caretta caretta)*.

During 2020–21, the project's third year, the NSW Turtlewatch app was launched, prompting citizen scientists to monitor 9 times more kilometres of beach for nesting turtles compared to the previous year.

Due to COVID-19, beach clean-ups had to be restricted to smaller groups, however 13 were conducted in October and November 2020 to promote the start of the nesting season.

Volunteers collected 50 kg of rubbish across 7 km of beach and all rubbish was itemised and data submitted to the Tangaroa Blue Marine Debris database.

During the year, NSW Turtlewatch was supported by 204 active citizen scientists, who collectively walked 1,222 km on 37 beaches. They made more than 850 data contributions, including a record 19 sightings of nesting activities and 843 items of threat management data, which will help inform how best to save these threatened marine species for the future.

5 Saving our Species Partnerships

We partner with organisations whose strategic corporate social responsibility and environmental conservation objectives align with those of the SoS program. Partners of SoS have significantly increased the capacity, resources, expertise, awareness and investment towards threatened species projects and their outcomes throughout 2020–21. These collaborative efforts have helped us achieve a greater, longer-term positive impact for threatened species conservation efforts across NSW.

Partnerships for investment

In 2020–21 over $400,000 was invested into the SoS program by key non-government organisations. These funds were used towards:

- innovative initiatives including Wild Idea 2020
- first of its kind nesting box trial
- a flying-fox sprinkler system research project.

Case study

Partnerships of purpose – WWF-Australia (WWF) and SoS

After coming on board as a partner following the devastating 2019–20 bushfires, WWF-Australia has continued to support the SoS program, funding several projects including a nesting box trial.

This project resulted in a special partnership between SoS, WWF, Minyumai Land Holding Aboriginal Corporation (Minyumai IPA), Jali Local Aboriginal Land Council (Ngunya Jargoon IPA), NPWS, Southern Cross University, Landmark Ecological and Wildbnb Wildlife Habitat.

Over 110 nest boxes were installed, 20 of which are monitored by cameras, targeting a range of small arboreal marsupials in 4 study areas: Minyumai and Ngunya Jargoon IPAs, Bundjalung National Park and Tabbimoble Swamp Nature Reserve.

Recent monitoring of the nest boxes has revealed occupancy from target species including the threatened squirrel glider, brush-tailed phascogale, and the yellow-footed antechinus. Feathertail gliders have also been regularly captured on the wildlife cameras.

WWF continues to support the vital on-ground SoS work with another 3 crucial conservation projects underway in 2022.

Industry recognition

SoS is a recognised, award-winning program. In 2020–21, the program was a finalist in:

- 2021 Australian Information Industry Association iAward for the Government/Public Sector category
- 2020 Banksia Sustainability Government Award
- 2020 Australian Street Art Awards for the Best External Mural category (for the *Threatened species of the Hunter* mural on the Pokolbin Distillery).

Case study

Flying-fox heat stress targeted in world first

In partnership with World Animal Protection, Campbelltown City Council and Western Sydney University (WSU), SoS is pioneering a research project to test if water sprinklers can reduce the effects of heat stress on flying-foxes. This ground-breaking research will determine whether sprinklers can reduce temperature-related deaths in flying-fox camps and, if so, how they can be configured to provide the best possible result for this threatened species.

WSU's Lab of Animal Ecology helped design a scientific experiment investigating the efficacy of using sprinklers. Associate Professor Justin Welbergen said his team has been able to gather continuous temperature and humidity data across the camp at different heights across the canopy, thermal data from a drone at regular intervals (before and after spraying from the sprinkler), and also behavioural data.

Research is being continued in summer 2021–22 to determine if sprinklers are viable, so we can continue making decisions to help vulnerable animals based on real data.

Case study

How volunteers are helping our glossy black-cockatoos

In the Southern Highlands, volunteers with the Feed the Birds tree planting and habitat restoration project, distributed more than 6,200 young she-oak (*Allocasuarina*) and *Eucalyptus trees*, which provide food and habitat for the vulnerable glossy black- cockatoo.

In 2020–21, a mass planting was undertaken near the village of Penrose, with 65 community members attending a COVID-19 safe day. They planted 1,500 trees to help create foraging and nesting habitat.

Local seed was collected from feed trees and propagated by the Australian Plant Society and Menai Wildflower Group. Since 2018, the project has distributed 20,000 trees to enhance foraging and nesting habitat mainly on private land in the Great Western Wildlife Corridor.

Volunteering

In 2020–21 more than 3,200 people gave their time and expertise to SoS, volunteering on over 50 projects, in partnership with more than 80 organisations. This totalled over 100,000 hours – the equivalent of over 11 years – valued at an estimated $2,122,172.

Volunteers aided SoS and threatened NSW species through:

- nursery work including growing insurance plant populations from cuttings
- tending to translocated plants in the wild, including watering
- spraying and hand pulling weeds
- pest control
- installing fences and cages
- surveys and monitoring of plants and animals revegetation work including planting habitat trees
- planning, administration and community engagement.

SoS co-investment scheme

The SoS co-investment scheme targets landscape-managed species and TECs, partnering with organisations who can undertake and partially finance large-scale conservation projects to benefit threatened species and ecological communities.

Between 2018–21, SoS partnered with 6 organisations – Big Scrub Landcare, Greening Australia, Nature Conservation Council, Molonglo Conservation Group, Foundation for National Parks and Wildlife, and Bush Heritage Australia – that delivered 9 projects on- ground, managing 15 landscape-managed species and 4 TECs. SoS has a second round of co-investment projects in 2022 to continue this essential work.

Find out more about these projects on our website.

Nursing Tarcutta's precious Grassy White Box Woodlands back to health

Bush Heritage Australia (BHA) is an independent not-for-profit that buys and manages land, and partners with Aboriginal people to conserve our iconic landscapes and native species.

BHA collaborates with a range of partners, from private landholders to conservation groups across Australia.

BHA and SoS first collaborated in 2018 on a project to protect Tarcutta Hills Reserve near Wagga Wagga. This reserve is one of the only remaining areas containing the critically endangered TEC White Box-Yellow Box-Blakely's Red Gum Grassy Woodland.

About 100 bird species feed and forage at Tarcutta. Many of them are also endangered, such as swift parrots, turquoise parrots, brown treecreepers, superb parrots, speckled warblers, black-chinned honeyeaters, hooded robins and diamond firetails.

BHA management in this reserve includes feral animal control, weed control and revegetation and establishing a network of flora and fauna monitoring sites. In 2020, BHA successfully purchased the land adjacent to Tarcutta Hills Reserve, called Woodleigh, extending around 70% of its management and monitoring activities.

SoS and the NSW Environmental Trust – working together to maximise impact

SoS is working in partnership with the NSW Environmental Trust to deliver partnership grants and contestable grants to fund projects for a suite of SoS streams, including site- managed species, landscape-managed species, and TECs.

The Trust spent over $1.5 million to support SoS Partnership Grants projects in 2020–21, including actions for 26 site-managed species, 12 landscape-managed species and 67 co- occurring threatened species. The Contestable Grants program is in its 4th year and has actions for 29 TECs and 35 landscape-managed species.

Project highlights

A new population of at least 250 Oaklands donkey orchids *(Diuris sp.)* was confirmed in a travelling stock reserve near Urana in November 2020, 3 years after the last solitary flowering orchid discovered by SoS and LLS was seen at the site.

This population is now being protected from grazing stock by Parklands Albury Wodonga to protect the orchid during flowering and seed setting from October to December. This site is the 4th known location of the orchid, which is only found in open grassy white cypress pine woodlands between Urana and Oaklands.

Lowland Lyrebird Links and associated discoveries

The Lowland Lyrebird Links project, in partnership with Tweed Shire Council, Birdlife Northern Rivers, Tweed Valley Landcare and private landholders, is underway, with 8 hectares of primary weed control work undertaken to clear invasive weeds on project sites at Mount Nullum and Numinbah.

The Tweed Shire is a stronghold for Albert's lyrebird (*Menura alberti*), a reclusive, mostly ground-dwelling bird that is restricted to suitable habitat within a small area. This bird is listed as vulnerable due its limited distribution, habitat clearing and fragmentation, weed encroachment, and feral pests; however, progress in 2020–21 of the Lowland Lyrebird Links project has already seen sites showing strong natural regeneration and a stable population of Albert's lyrebird.

Whilst undertaking restoration work and pest animal surveys, several exciting discoveries were made, including a significant regenerating population of threatened *Cassia marksianna* – a threatened plant species not seen in the area for several years. Additionally, a new population of flightless rainforest ground-beetle, a healthy patch of native rainforest vine *Carronia multisepalea*, and the main breeding habitat for the endangered southern pink underwing moth were also found.

A citizen science project called Listening for Lyrebirds has been launched at Mount Nullum for the community to help gather vital information about the Albert's lyrebird, via iNaturalist online or using the iNaturalist app.

Saving our Species

6 Raising awareness in our community

SoS is a movement of volunteers, scientists and community groups, determined to make a difference for Australia's unique plants and animals. Collaboration and engagement are at the heart of the program, as it takes a coordinated statewide effort to secure the survival of as many NSW threatened species as possible in the wild.

Our communications have been focused on increasing awareness of threatened species and ecological communities to a broader audience so that together we can amplify the importance biodiversity. With COVID messaging and information dominant across the media landscape during 2020–21, SoS placed an increased focus on digital media content to complement its media relations activity and provided COVID-safe ways for the public to engage, interact and participate in the program.

Case study

Vote for your favourite threatened species

In 2020, SoS trialled different communication and content methods to see whether the public would participate in fun, digital-led initiatives about threatened plants and animals. The results showed that our community responds positively and engages when they are given something fun to do for a worthwhile cause.

In April and May 2021, we asked the NSW public to vote for their favourite threatened species, while educating them about the plants and animals at risk of extinction and the work SoS is doing to prevent this outcome.

The campaign aimed to increase the general public's awareness of and engagement with our threatened species, inform them of how SoS is securing a future for these plants and animals, and establish a long-term relationship with this broad audience.

The mechanism to vote was a simple online survey and landing page, making it easy to enter. To incentivise participation, we worked with our partners at Aussie Ark, Australian Geographic and Ferrero to offer some exciting prizes.

The winner – the glossy black-cockatoo – was announced on World Environment Day in June 2021.

The campaign exceeded the objectives set, with 2,000+ votes received, 1,000+ new subscribers to the SoS newsletter and 7,500 unique pageviews to the voting landing pages on our website (with the average time on page nearly 2 minutes longer than the rest of our website). The campaign also increased traffic to the 'Help save our threatened species' webpage by 30% for the duration of the campaign.

Business of Biodiversity podcast

SoS launched a podcast in 2020 that focuses on how investing in threatened species conservation is simply good for business. The *Business of Biodiversity* podcast explores threatened species and the actions farmers, businesses, non-government organisations and everyday people are taking to protect them.

The podcast is produced by the Grow Love Project, a social enterprise start-up and finalist in the 2019 Wild Idea Business Incubator. It has a growing audience of over 5,000 listeners, and positive reviews.

Community engagement

In 2020–21 SoS collaborated on more than 180 engagement activities that reached over 28,000 members of the community. These included on-ground species conservation projects such as trappings and releases, tree plantings, field days and Bioblitz events.

SoS continued to engage with landholders and farming communities, which is essential in ensuring our experts have access to private land where threatened species are found.

Sharing the Gumbaynggir Aboriginal cultural story, 'The emu and the platypus'

The coastal emu is of significant cultural value to Bundjalung, Gumbaynggirr and Yaegl Aboriginal people. The Aboriginal cultural story of 'The emu in the sky' has existed in storylines for thousands of years.

In 2020, the Gumbaynggirr Aboriginal community of Coffs Harbour shared their version of the story with the broader community through the creation of a short film, with support from the SoS program through its coastal emu conservation project.

The story of '*The emu and the platypus*', originally told by Uncle Lambert Whaddy, tells of 2 young boys on a journey upstream and how the emu came to be in the Bellinger Valley. It reminds us that we all have a responsibility to look after the coastal emu.

SoS worked alongside the Gumbaynggir community to acknowledge traditional knowledge of and connection to country and the coastal emu. The film featured shared messages about looking after the coastal emu.

The emu and the platypus short film created strong community engagement with a local screening launch and more than 60,000 views on social media. It helped raise awareness about the importance of the coastal emu and the need to preserve its habitat.

See 'More information' for a link to the video.

Saving our Species

7 The future of Saving our Species

On July 1, 2021, SoS successfully secured an additional $75 million to continue the Saving our Species program for an additional 5 years, from 2021–26. SoS has a strong focus on allocating resources efficiently and we will continue to prioritise actions that make the biggest difference for the most species. The first 5 years of the program have enabled us to identify improvements that will make SoS more effective in delivering results for the next phase of the program, and better able to demonstrate the real difference it's making for threatened plants and animals.

Priorities for the $75 million investment from 2021–26 include:

- ensuring resources and projects are in place to save hundreds of threatened plants and animals
- increasing the capacity to respond to emergencies like bushfires, floods and drought
- strengthening our innovation and best practice science and reporting
- enabling translocation projects to create climate refugia, particularly for threatened plants
- trial new and emerging scientific evidence by placing an increased focus on conservation hotspots to identify where investment in on-ground actions will benefit the most species and ecological communities.

SoS is a proven framework that is making a significant difference and positive impact on conservation. We look forward to continuing our important work to save NSW threatened species.

8 Saving our Species More information

- Business of Biodiversity podcast
- Critically endangered Bredbo gentian registers best season on record
- DigiVol
- Emu and the platypus video
- Endangered turtles troop back to Bellinger River
- Flying-fox heat stress targeted in world first
- Help save our threatened species
- Listening for Lyrebirds project page
- NSWs endangered frogs leap into World Frog Day limelight
- Rare photos confirm Illawarra's hidden spotted tailed quoll population
- Secret crop of near-extinct Oaklands donkey orchids discovered in the Riverina
- SoS Conservation Co-Investment Partnerships
- SoS Science and Research projects
- Subscribe to Saving our Species news
- Thirty-metre mural raises glass to Hunter threatened species conservation
- Wild Idea
- World first germination method maps a road to recovery for critically endangered orchids
- Your favourite NSW threatened species of 2021

NSW threatened species profiles:

- Albert's lyrebird
- Beadle's grevillea
- Bellinger River snapping turtle
- Black-chinned honeyeater
- Bredbo gentian
- Brown treecreeper
- Brush-tailed phascogale
- Buttercup doubletail
- *Corunastylis* sp. Charmhaven
- Crimson spider orchid
- Diamond firetail
- East Lynne midge orchid
- Glossy black-cockatoo
- Gordon's wattle
- Green sea turtle
- Hastings River mouse
- Hooded robin
- Illawarra greenhood orchid
- Kangaloon sun orchid
- Loggerhead turtle
- Long-nosed potoroo
- Oaklands donkey orchid
- Parma wallaby
- Pot-bellied greenhood orchid
- Pretty beard orchid
- Red-legged pademelon
- Rhyolite midge orchid
- Southern bell frog
- Speckled warbler
- Spotted-tailed quoll
- Squirrel glider
- Superb midge orchid
- Superb parrot
- Swift parrot
- Tallong midge orchid
- Tarengo leek orchid
- Turquoise parrot
- Variable midge orchid
- Wyong sun orchid

Photos:

Page 2: Koscuiszko National Park Winter 2013 (John Spencer/DPIE); **Page 4:** Threatened species officer Gerry McGilvray releasing one of the snapping turtles (Brent Mail); **Page 5:** SoS staff checking pitfall traps in Nanya Reserve (Alex Pike); **Page 6:** Pot-bellied greenhood orchid (Jedda Lemmon); **Page 7:** Tumbillica NP post fire (Alex Pike/ DPIE); **Page 8:** Hastings River Mouse (Doug Beckers/ DPIE); **Page 9:** Solanum sulphureum (*Manning Yellow Solanum*) (Gavin Phillips/DPIE); **Page 10:** Astrotricha sp. *Wallagaraugh* (*Merimbula Star-hair*) (Laura Canackle/ DPIE); Gordon's wattle in full bloom (Steve Douglas); Bredbo gentian; **Page 11:** Corunastylis sp. *Charmhaven orchid***;** Spotted-tailed Quoll, Dasyurus maculatus (James Dawson/DPIE); Southern Bell Frog, *Litoria raniformis (*Alex Pike/DPIE); **Page 12:** Bellinger River snapping turtle (Brent Mail); **Page 13:** White Box Yellow Box Blakelys Red Gum Woodland Threatened Ecological Community (Steve Lewer/DPIE); **Page 14:** Grevillea beadleana (Beadle's Grevillea) (Gavin Phillips/DPIE); **Page 15:** Using Butterflies Australia app - Purple Copper Butterfly, Bathurst Copper Butterfly, Paralucia spinifera (David Roma/ DPIE); Volunteer working on the NSW TurtleWatch program (Shannon Greenfields/DPIE); **Page 16:** Nesting box trial team (Lachlan Cooper); Tania Reid presenting at Wild Idea (Sam Marwood); **Page 17:** Taking photos of nesting boxes (Lachlan Cooper); Pokolbin Distillery mural (Andi Zest); **Page 18:** Grey headed flying-fox (Matthew Mo/DPIE); Native tree planting community volunteers (Rosie Nicolai/ DPIE); **Page 19:** Volunteer Lorraine Zions HRBG *villous mintbush* (John Spencer/DPIE); Bush Heritage,Tarcutta Hills (Richard Taylor); **Page 20:** Oaklands donkey orchid (Shanna Rogers); FNPW Trails for Tails (wildlife camera in Wanganui); **Page 21:** Community engagement activity, Adaminaby (Alex Pike); Social media post example. Threatened species day (Emily Dufton); **Page 22:** Female Glossy Black-Cockatoo, (*Calyptorhynchus lathami*)(George Madani/DPIE); Vote campaign (Emily Dufton); **Page 23:** SoS podcast. Grow Love Project; Community engagement activity. Adaminaby (Alex Pike); Emu and platypus filming (Kristy Pursch/DPIE); **Page 24:** Wee Jasper Grevillea (Alex Pike); **Page 25:** Greening Australia,monitoring direct seeding (LucyWenger).

Published by:

Environment and Heritage

Department of Planning and Environment

Locked Bag 5022, Parramatta NSW 2124

Phone: +61 2 9995 5000 (switchboard)

Phone: 1300 361 967 (Environment and Heritage enquiries)

TTY users: phone 133 677, then ask for 1300 361 967Speak and listen users: phone 1300 555 727, then ask for 1300 361 967

Email: info@environment.nsw.gov.au

Website: www.environment.nsw.gov.au

Report pollution and environmental incidents

Environment Line: 131 555 (NSW only) or info@environment.nsw.gov.au

See also www.environment.nsw.gov.au

ISBN 978-1-922840-28-8

EHG2022/0263

June 2022