

Evidencing Species Recovery

For the Royal Zoological Society
of Scotland's 2030 strategy

The Royal Zoological Society of Scotland (RZSS) is a wildlife conservation charity with a bold vision: a world where nature is protected, valued and loved.

RZSS pledges to reverse the decline of at least 50 species by 2030, from pine hoverflies and wildcats in the Cairngorms National Park, to chimpanzees in Uganda, giant anteaters in Brazil and many more. This document outlines how we will evidence the species recovery process.



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Why save species?



Globally, extinction rates are at least 100 times higher than 'normal' background rates and one million species are threatened with extinction.

In Scotland, 49% of species have declined in number and a staggering one in nine are threatened with extinction.

The Species Survival Commission of the International Union for the Conservation of Nature (IUCN-SSC) outlines many reasons why species conservation is critical:

Species and their interactions with each other are the fundamental building blocks of ecosystems, be this the desert or the mountains, the sea or the savannah

- Species act as indicators for the overall health of ecosystems**
- Certain "keystone" species, such as pollinators and predators, are essential to regulating interactions between a myriad of other species that make up an ecosystem**
- Caring about specific species makes nature more relatable to people. Many species have a strong cultural value to the human communities that live alongside them**



There are many threats that have led to the decline of species, including habitat loss, hunting, climate change, pollution and disease.

Recovering a species is not something that can be done overnight and successful species recovery efforts require a large number of people and organisations to pool their expertise and resources for the common good. Our approach will always include:

- 🐾 Working in partnership. It's rarely possible for an individual or even a single organisation to save a species
- 🐾 A long-term joined-up commitment to the process of recovery. Species cannot recover alone without healthy habitat to support them
- 🐾 Using science and conservation planning to support sound decision making

These are principles embodied in standards laid out by the global conservation community.^{1,2,3}



What is the RZSS approach to species recovery?



1 Strategic Planning for Species Conservation: A Handbook
2 CMP Open Standards for the Practise of Conservation
3 CPSG Species Conservation Planning Principles and Steps

What species will RZSS help?



RZSS plans to help threatened animal species living in a wide range of habitats in Scotland and around the world.

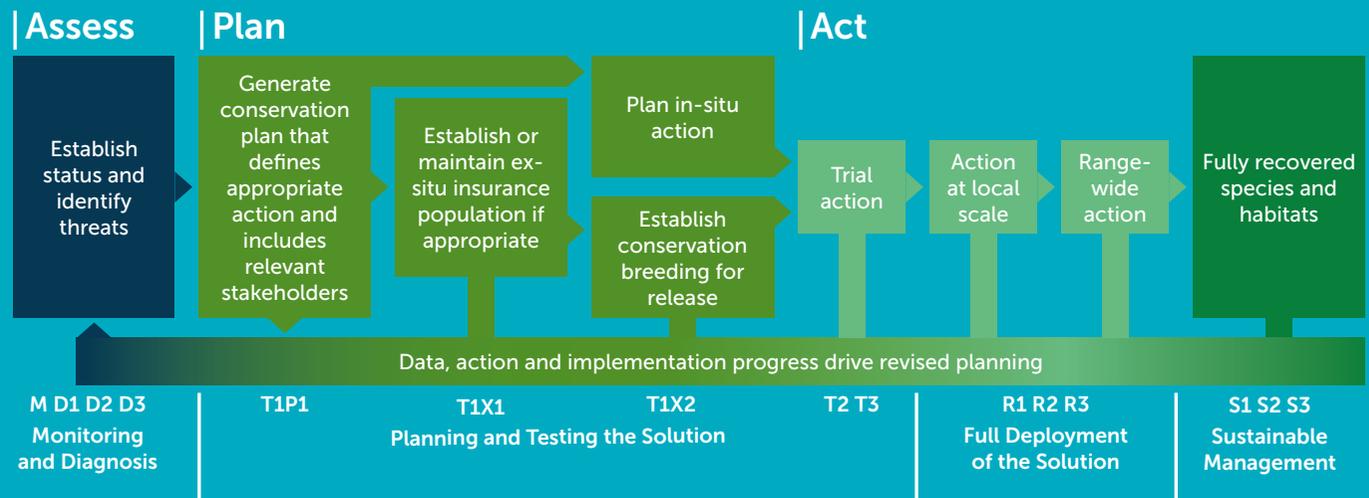
-  RZSS will always work in a way that promotes species conservation as a positive driver for wider ecosystem recovery and is aligned with recovery effort for other threatened species sharing the same habitat
-  RZSS will engage with projects where our unique set of skills is put to best use. These skills are conservation breeding (ex-situ conservation), conservation translocations (for example reintroductions), applied conservation genetics through the work of the RZSS WildGenes laboratory and conservation planning.

Dark bordered beauty moths photograph Roy Leverton
Dama gazelle photograph AB Photography
Pallas cat photograph Julie Hjelm Kristensen

How will RZSS measure species recovery?

RZSS will measure species recovery using progress against these steps (right). They recognise the full cycle of conservation recovery and align with steps found in other species recovery "curve" tools used across the wider conservation community.

These steps are a modified version of those used by the RSPB and incorporate specific steps that RZSS uses in the management of threatened species. This includes explicit steps on planning conservation action, conservation breeding and the management of genetic diversity in the process of species recovery.



Monitoring & Diagnosis	
M	Purely monitoring, no action taken.
D1	No research undertaken/cause of decline unknown.
D2	Research underway but limited understanding of the cause of decline.
D3	Research is providing a strong indicator of the cause of decline.
Planning & Testing the Solution	
T1	Diagnosis provides sufficient result to trial a solution, but work only initiated recently.
T1P1	Multistakeholder conservation action plan agreed and published.
T1X1	(As appropriate) Insurance population established with no immediate plan for release/other ex-situ conservation support activities implemented, such as the leveraging of funds through the programme to support in-situ conservation/translocation planning initiated.
T1X2	(As appropriate) Conservation breeding for release population established (animals being bred/held in conditions ready for release)/translocation planning advanced for example timeline for release defined.
T2	Trial management underway but not yet clear evidence that it can deliver objectives.
T3	Trial management is providing strong evidence that it will deliver objectives.
Full Deployment of the Solution	
R1	Work initiated to roll out solutions across species range – releases replicated beyond initial trial site(s).
R2	Solution adopted across the species range but too early to demonstrate success against population/range/genetic diversity/targets.
R3	Solutions enable achievements against population/range targets/genetic diversity but only with continued conservation intervention.
Sustainable Management	
S1	Indication that population/range targets/genetic diversity being achieved with minimal intervention.
S2	Good evidence that population/range/genetic diversity targets being achieved with little or no intervention (for example population maintained with regular land management practises).
S3	Population/range/genetic diversity targets achieved and the species' conservation status secured.



RZSS pledges to:

Establish targets for recovery from the outset and review our progress regularly with the help of external experts.

The RZSS approach aligns with the IUCN approach on conservation planning including the "One Plan" approach and the "Assess-Plan-Act" cycle and reflects the approach to the preservation of the three pillars of biodiversity – ecosystem, species and genes, in the post-2020 Kunming-Montreal Global Biodiversity Framework. Where possible, RZSS will also feed into the IUCN Red List and the Green Status of Species. RZSS is a supporter of the IUCN Global Species Action Plan (GSAP).



Table 1: Example targets

Species	RZSS role	2020 baseline	2030 target
	Lead	T1X1	R1
	Technical	T1P1	T3

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The RZSS approach to evidencing species recovery was made possible thanks to the support of players of the People's Postcode Lottery.

Will you help?

Together with your support, at least 50 species can have a future. To get involved and help, please visit rzss.org.uk/savingspecies

Find out more about our work

[Read the strategy document](#)