Zoos Victoria's Fighting Extinction Species

SOUTHERN BENT-WING BAT

Miniopterus orianae bassanii

Critically Endangered

Photo: Steve Bourne

The Southern Bent-wing Bat (*Miniopterus orianae bassanii*) is one of only nine Australian mammals that is federally listed as Critically Endangered, or put more simply is "facing an extremely high risk of extinction". Equipped with echolocation for finding insect prey at night, the Southern Bent-wing Bat is an ancient cave dweller of Victoria and South Australia. Once numbering in the hundreds of thousands across southern Australia, the current Victorian population is estimated to comprise fewer than 25,000 individuals.

ZOOS VICTORIA
Fighting Extinction

Zoos Victoria is committed to Fighting Extinction

We are focused on working with partners to secure the survival of our priority species before it is too late.

Photo: Lindy Lumsden

Over the term of our first Wildlife Conservation Master Plan, Zoos Victoria supported efforts by research scientists at Arthur Rylah Institute to begin to determine population dynamics for Southern Bent-wing Bats and assess population numbers and breeding success. Further monitoring will help to answer some of our questions about this unique species.

KEY PROGRAM OBJECTIVES

- Ensuring the protection and integrity of the Victorian maternity cave, and the special micro-climate it provides for rearing young.
- Monitoring other refuge sites.
- Research into the threats facing Southern Bent-wing Bats and its critical habitats.
- Disease investigations with our partners, including White-nose Syndrome.
- Removal of rubbish and restoring other known caves used by this species.

PROGRAM OUTCOMES

- Zoos Victoria has supported our partners in monitoring and looking at population dynamics for this species.

THE SPECIES

The Southern Bent-wing Bat was first described as a distinct subspecies in 2000 with more recent genetic studies suggesting it may warrant full species status. It is an obligate cave-dwelling bat occurring only in south-east South Australia and south-west Victoria. During the non-breeding season individuals are distributed throughout this region, roosting in a large number of caves and rock crevices. During the breeding season, however, the majority of the population congregates in its three regularly-used breeding caves. These caves are protected and have conservation management plans to ensure their long term security.

The population size of this bat has declined dramatically in the last 60 years from estimated 100,000 – 200,000 individuals at the South Australian maternity site to 20,000 individuals at that site in 2009. Due to the severity of this decline and the dependence on just two known regularly-used breeding sites at the time, the subspecies was listed as Critically Endangered under the EPBC Act in 2007. It is listed as Endangered in the 'Action Plan for Australian Mammals 2012'. A range of threats have been suggested as potential factors in this decline, including loss and modification of roosting and foraging habitat, human disturbance, pesticides, disease, and drought and climate change affecting food availability.

There is an urgent need to determine the extent of each factor in contributing to this decline, so that the most effective and targeted management actions can be implemented.

Southern Bent-wing Bats are long-lived animals, with individuals recorded living up to 22 years old. Not all individuals however are likely to live this long. Little is known of the survival rates of the various age classes and demographic groups (i.e. males vs. females, juveniles vs. adults). Such information will help in determining which threats are having the most severe impacts on the population.

THE PLAN

Protecting Victoria's main maternity site.	$400,000
Understanding the population dynamics of the species.	$425,000
Contributing to an Australian Research Council (ARC) funded study of white-nose syndrome.	$80,000
Habitat restoration of maternity cave surrounds.	$10,000 p.a
Investigating threats facing Southern Bent-wing Bat habitat.	$80,000
Activations at our zoos and online that aim to increase community care and knowledge of Southern Bent-wing Bats and generate support for the conservation projects.	$10,000
Total cost over five years	**$1,045,000**

How can I help?

You can support our Wildlife Conservation Master Plan 2019-2024 by donating at: **zoo.org.au/donate**

PROGRAM PARTNERS

Department of Environment, Land, Water and Planning
delwp.vic.gov.au

The Arthur Rylah Institute
ari.vic.gov.au

Trust for Nature
trustfornature.org.au

Odonata
odonata.org.au

The Glenelg Nature Trust
natureglenelg.org.au

Find out more
zoo.org.au/fightingextinction

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