



Reptiles in the MIA



Background

Australian reptiles are remarkable creatures and many of them are found nowhere else in the world. Reptiles mostly feed on insects and other animals and in turn they are a food source for many birds and native mammals. Some species are “generalists” and are adaptable to changed environments, while others are “specialists” with specific diet and habitat requirements.

Very few systematic surveys of reptiles have been conducted in the Riverina and hence the status of many reptile species is unknown. Extensive surveys of reptiles have recently been conducted in the Murrumbidgee Irrigation Area (MIA) as part of the EnviroWise Biodiversity Program.

Objectives

The objectives of conducting reptile surveys in the MIA include:

- Build a picture of the distribution and abundance of reptiles in the MIA
- Establish baseline data for ongoing monitoring
- Identify opportunities for improved management of reptile habitat
- Improve community awareness of reptiles and their habitat

Methods

Some 30 sites were chosen for reptile surveys from the existing 71 Biodiversity Sites that have been established by Murrumbidgee Irrigation (MI) in remnant vegetation across the MIA. Sites were chosen to reflect the different vegetation communities and range of habitat conditions present.



Gerry Swan checks under bark for reptiles during recent surveys in the MIA. (Photo Louise Harrison)

Surveys were conducted over a two-week period during summer 2003. Active searching of the habitat was the main method used to detect reptiles and this involved lifting logs, rocks and checking under bark and leaf litter. Pitfall traps were only used in a small number of sites to target specific species.

Assessments of habitat considered the presence of fallen timber, understorey vegetation, grazing pressure, and the size and isolation of remnants.



The Common Dotted Tree Gecko is the most common gecko found in the MIA. They are often observed at night on the windows of homes where they forage for insects. (Photo Steven Sass)

Results

Of the 49 species of reptiles that you could expect to find in the MIA (based on NSW NPWS Wildlife Atlas), some 29 species were recorded during the 2003 survey period. These included 4 species of snakes, 5 species of geckos, 11 species of skinks, and other lizards.

The species most commonly recorded included Boulenger's Skink (*Morethia boulengeri*) and the Carneby's Wall Skink (*Cryptoblepharus carnabyi*). Specialist species found during the survey included the



Spinifex Snake-Lizard (*Delma butleri*). This species can be found in spinifex or tussock grasses, where it hunts small invertebrates. Others such as the Beaked Gecko (*Rhynchoedura ornata*) shelter only in disused spider burrows.

The diversity and abundance of reptiles in the MIA was influenced by the vegetation community and associated soil type. Rosewood-Belah, Mallee and Bimble Box communities had the highest diversity of reptiles, while the presence of fallen timber and grazing pressure also influenced the presence of reptiles.

The Western Blue-Tongue Lizard (*Tiliqua occipitalis*) is the only reptile species listed in the Threatened Species Conservation Act 1995 that is likely to occur in the MIA. This species prefers mallee habitat but was not detected during the survey period.



Carneby's Wall Skink is a small skink up to 40mm in length. It is commonly found foraging for insects in fallen timber and home gardens. (Photo Dennis Morretto)

While travelling between survey sites some 60 incidental sightings of reptiles were made. These sightings contributed 5 species to those recorded during active searches of survey sites.

What you can do

Things you can do to help preserve local reptile populations:

- Conserve native vegetation habitat
- Extend habitat by planting local-native tree and shrub species
- Avoid heavy grazing in vegetation remnants
- Retain fallen timber
- Help control foxes and feral cats
- Keep domestic cats inside the house
- Report reptile sightings to MIA Fauna Watch

What's next?

Further surveys are planned for the future to try and detect some of the species not recorded during the 2003 survey



A Common Blue-tongue Lizard gets passed around during a field day held at Fivebough Swamp in Leeton during summer 2003. (Photo Louise Harrison)

period and to monitor reptile populations in the MIA.

The results of this survey are detailed in the Charles Sturt University report "Reptile Diversity in the MIA: A Baseline Survey" May 2004, by S. Sass, S.Wassens, L.Thompson, and G.Swan.

The National Action Plan for Salinity and Water Quality (NAP) and the Natural Heritage Trust (NHT) provided funding for this project.

Thanks again to the landholders who continue to allow us access to their properties to conduct the biodiversity surveys. Thank you also to Steven Sass for his contributions to this material.

For further information about the MIA EnviroWise Biodiversity Program please contact Louise Harrison at MI on phone 02 69620200.



Evidence of turtle eggs that have been dug up at a local swamp demonstrates the ongoing destruction by foxes. (Photo Louise Harrison)

Reptile Species in the Murrumbidgee Irrigation Area 2003

Species	Common name	Expected / Not Expected*	Found / Not Found*
<i>Christinus marmoratus</i>	Marbled Gecko	E	F
<i>Diplodactylus byrnei</i>	Gibber Gecko	E	NF
<i>Diplodactylus vittatus</i>	Eastern Stone Gecko	E	NF
<i>Diplodactylus tessellatus</i>	Tessellated Gecko	E	F
<i>Gehyra variegata</i>	Common Dtella	E	F
<i>Rhynchoedura ornata</i>	Beaked Gecko	E	F
<i>Strophurus intermedius</i>	Southern Spiny-tailed gecko	E	F
<i>Underwoodisaurus milii</i>	Thick-tailed Gecko	E	NF
<i>Delma butleri</i>	Spinifex Snake-lizard	NE	F
<i>Delma inornata</i>	Plain Snake-lizard	E	F
<i>Lialis burtonis</i>	Burton's Snake-lizard	E	NF
<i>Pygopus schraderi</i>	Eastern Hooded Scaly-foot	E	NF
<i>Varanus gouldii</i>	Sand Monitor	E	F
<i>Varanus varius</i>	Lace Monitor	E	F
<i>Amphibolurus nobbi</i>	Nobbi Dragon	E	NF
<i>Physignathus lesueurii</i>	Eastern Water Dragon	E	NF
<i>Pogona barbata</i>	Eastern Bearded Dragon	E	F
<i>Pogona vitticeps</i>	Central Bearded Dragon	NE	F
<i>Tympanocryptis tetraporophora</i>	Four-pored Earless Dragon	NE	F
<i>Carlia tetradactyla</i>	Southern Rainbow Skink	NE	F
<i>Cryptoblepharus carnabyi</i>	Carneby's Wall Skink	E	F
<i>Ctenotus robustus</i>	Robust Ctenotus	E	F
<i>Egernia striolata</i>	Tree Skink	E	F
<i>Eremiascincus richardsoni</i>	Broad-banded Sand-Swimmer	E	NF
<i>Lampropholis guichenoti</i>	Grass Sun-skink	NE	F
<i>Lerista muelleri</i>	Three-toed Lerista	E	F
<i>Lerista punctatovittata</i>	Spotted Lerista	E	F
<i>Menetia greyii</i>	Dwarf Skink	E	F
<i>Morethia boulengeri</i>	Boulenger's Skink	E	F
<i>Tiliqua occipitalis</i>	Western Blue-tongue Lizard	E	NF
<i>Tiliqua rugosa</i>	Shingleback	E	F
<i>Tiliqua scincoides</i>	Eastern Blue-tongue	E	F
<i>Ramphotyphlops australis</i>	Southern Blind Snake	E	NF
<i>Ramphotyphlops bituberculatus</i>	Prong-snouted Blind Snake	E	NF
<i>Ramphotyphlops proximus</i>	no common name	E	NF
<i>Morelia spilota metcalfei</i>	Inland Carpet Python	E	NF
<i>Brachyuropis australis</i>	Australian Coral Snake	E	NF
<i>Demansia psammophis</i>	Yellow-faced Whipsnake	E	NF
<i>Notechis scutatus</i>	Tiger Snake	E	NF
<i>Pseudechis australis</i>	Mulga Snake	E	NF
<i>Pseudechis porphyriacus</i>	Red-bellied Black Snake	E	F
<i>Pseudonaja nuchalis</i>	Western Brown Snake	E	NF
<i>Pseudonaja textilis</i>	Common Brown Snake	E	F
<i>Suta dwyeri</i>	Dwyer's Black-headed Snake	E	F
<i>Suta suta</i>	Curl Snake	E	F
<i>Vermicella annulata</i>	Bandy-bandy	E	NF
<i>Chelodina expansa</i>	Broad-shelled Turtle	E	NF
<i>Chelodina longicollis</i>	Snake-necked Turtle	E	F
<i>Emydura macquarii</i>	Macquarie Turtle	E	F

* Based on surveys by Charles Sturt University 2003

