

Threatened Species of the Northern Territory

Mertens' Water Monitor

Varanus mertensi

Conservation status

Australia: Endangered

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976

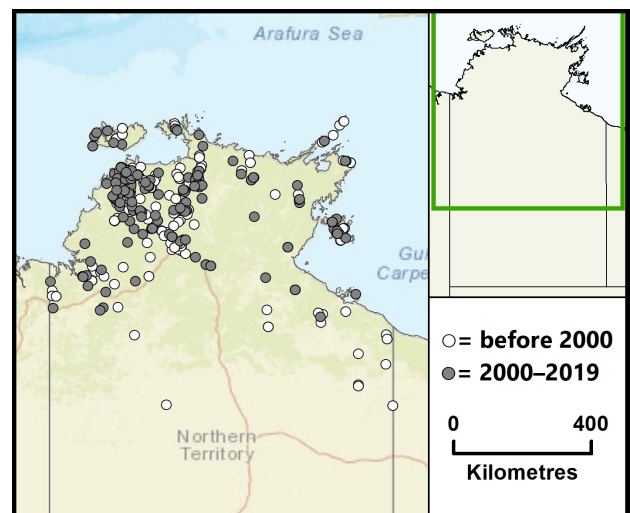
Description

Mertens' Water Monitor is a moderately large, semi-aquatic monitor growing to a total length of up to 1 m. It is dark brown to black above, with numerous small, dark-edged cream or yellow spots. The lower lip is yellowish and speckled or barred with grey. The underside is white to yellowish with some grey markings on the throat and chest. The tail, which is about 1.5 times as long as the body, is strongly laterally compressed and has a strong two-keeled crest along the top.

Distribution

Mertens' Water Monitor has a broad distribution that encompasses coastal and inland waters across the far north of Australia, from the Kimberley to the western side of Cape York Peninsula. In the Northern Territory (NT), the species has been recorded across most of the Top End and the Gulf region.

NT conservation reserves where reported: Black Jungle/Lambells Lagoon Conservation Reserve, Cutta Cutta Caves Nature Park, Djukbinj National Park (NP), Elsey NP, Flora River Nature Park, Fogg Dam Conservation Reserve, Garig Gunak Barlu NP, Judburra/Gregory NP, Howard Springs Nature Park, Kakadu NP, Keep River NP, Litchfield NP, Manton Dam, Mary River NP,



Known localities of Mertens' Water Monitor in the NT
(nrmmaps.nt.gov.au)

Nitmiluk NP, Territory Wildlife Park-Berry Springs Nature Park and Umbrawara Gorge NP.

Ecology and life-history

Mertens' Water Monitor is semi-aquatic and is seldom seen far from water. The species is a strong swimmer and uses its laterally compressed tail to provide thrust. It is also adept at climbing on rocks and trees near water, and often basks on branches overhanging the water or on rocks in the middle of streams.

The diet mostly comprises fish, frogs and carrion but individuals will also eat insects and small terrestrial vertebrates. Mertens' Water Monitors have an excellent sense of smell and may dig up

prey when foraging, including freshwater turtle eggs.

Egg-laying usually occurs early in the dry season. Females construct a burrow in the ground and lay their eggs therein to incubate.

Threatening processes

The Cane Toad *Rhinella marina* presents the most significant threat to the species. Mertens' Water Monitors are highly susceptible to Cane Toad toxin and can easily consume a toad large enough to kill them¹⁻². Cane toads are now present across the entire distribution of the species in the NT.

Conservation objectives and management

Given our inability to prevent localised declines once Cane Toads arrive, conservation and management effort is best aimed at: trying to maintain the number of Mertens' Water Monitor in toad-invaded areas; and preventing Cane Toads from spreading to offshore islands with monitors. However, Mertens' Water Monitor inhabits relatively few islands. For example, the species was recorded on only three of 60 islands surveyed in the English Company and Wessel Islands Group off north-east Arnhem Land, Groote Eylandt and the Tiwi Islands⁴⁻⁶.

References

- ¹ Smith, J.G., Phillips, B.L. 2006. Toxic tucker: the potential impact of cane toads on Australian reptiles. *Pac. Conserv. Biol.* 12, 40–49.
- ² Burnett, S., 1997. Colonising cane toads cause population declines in native predators: reliable anecdotal information and management implications. *Pac. Conserv. Biol.* 3, 65–72.
- ³ Doody, J.S., Rhind, D., Green, B., Castellano, C., McHenry, C., Clulow, S., 2017. Chronic effects of an invasive species on an animal community. *Ecol.* 98, 2093–2101.
- ⁴ Griffiths, A.D., McKay, J.L., 2007. Cane toads reduce the abundance and site occupancy of Merten's water monitor (*Varanus mertensi*). *Wildl. Res.* 34, 609–615.
- ⁵ Webb, G. Pty Ltd., 1992. Flora and fauna surveys on the western side of Groote Eylandt, N.T. (1991–92). Report to BHP Manganese – GEMCO.
- ⁶ Woinarski, J., Brennan, K., Hempel, C., Armstrong, M., Milne, D., Chatto, R., 2003. Biodiversity conservation on the Tiwi Islands, Northern Territory. Part 2. Fauna. 127 pp.

⁶ Woinarski, J.C.Z., Horner, P., Fisher, A., Brennan, K., Lindner, D., Gambold, N., Chatto, R., Morris, I., 1999. Distributional patterning of terrestrial herpetofauna on the Wessel and English Company Island groups, north-eastern Arnhem Land, Northern Territory, Australia. *Aust. J. Ecol.* 24, 60-79.