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CAMERONS CAVE TROGLOBITIC COMMUNITY

Endangered Ecological Communities of Western Australia

Caves and groundwater on the Cape Range peninsula harbour many species of troglobitic (cave-dwelling) and stygobitic (groundwater-dwelling) animals. Most of these occur nowhere else and some are listed as threatened species under State and Commonwealth legislation.

The animals exist in ecological communities—naturally occurring biological assemblages that occur in a particular type of habitat. The community that occurs in Camerons Cave, known as the Camerons Cave Troglobitic Community, includes both aquatic and terrestrial animals and is unique. It is a 'Threatened Ecological Community' and has been assessed as Critically Endangered. The community consists of at least 10 small animals, including four species listed threatened—blind gudgeon Milyeringa veritas, Barrow Island Draculoides Draculoides bramstokeri. Camerons Cave pseudoscorpion Hyella humphreysi and Camerons Cave millipede Stygiochiropus peculiaris.

Camerons Cave is located within the southern part of Exmouth townsite on the eastern coastal plain of the Cape Range peninsula. The cave extends downwards to the water table, which here consists of a narrow freshwater layer above salt water. The fresh water maintains high levels of humidity in the cave, on which the animals depend.

Threats to the community include uncontrolled access to the cave, modifications to or pollution of the area's groundwater or surface flows, and pollution or rubbish dumping in the cave.



A troglobitic harvestman (*Glennhuntia glennhunti*) that occurs only in Camerons Cave. Photo – ©Douglas Elford, Western Australian Museum



A troglobitic micro-whipscorpion (Draculoides sp.). Photo - ©Douglas Elford, Western Australian Museum



CALM is committed to ensuring that Critically Endangered ecological communities are not destroyed. This is done through the preparation of a Recovery Plan (RP) or Interim Recovery Plan (IRP) that outlines the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of the community.

RPs and IRPs are prepared by CALM in consultation with affected parties and implemented by a Recovery Team. The Recovery Team for Camerons Cave is the North West Cape Karst Management Advisory Committee.

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Recovery actions that have been implemented to protect the threatened ecological community include:

- the North West Cape Karst Management Advisory Committee has been appointed the recovery team for the Camerons Cave Troglobitic Community;
- an Interim Recovery Plan is being prepared in conjunction with the Committee;
- the entrance to the cave is fitted with a locked gate;
- investigations to design a reserve to protect the cave and its catchment are underway.

Future actions that will be implemented if possible:

- declaration of a reserve to protect Camerons Cave;
- search for other occurrences of the ecological community;
- investigation of the area's hydrology and develop a catchment management plan;
- monitoring of the troglobitic community to ensure it survives;
- monitoring of water levels and water quality in the cave.

North West Cape Karst Management Advisory Committee:

This committee has representatives from the WA Department of Conservation and Land Management (CALM), the Shire of Exmouth, the WA Museum, the WA Water and Rivers Commission, the Department of Defence and the WA Speleological Group (Exmouth).

For further information contact CALM's Exmouth District Office on (08) 9949 1676.

IRPs will be deemed a success if essential recovery actions have been implemented, and identified threatening processes have been ameliorated within three years of the Plan's approval.



A troglobitic leaf hopper (*Phaconeura* sp.) from Camerons Cave. Photo — ©Douglas Elford, Western Australian Museum



Camerons Cave Pseudoscorpion (*Hyella humphreysi*). Photo — ©Douglas Elford, Western Australian Museum



Entrance to Camerons Cave. Photo - @W.F. Humphreys, Western Australian Museum











