

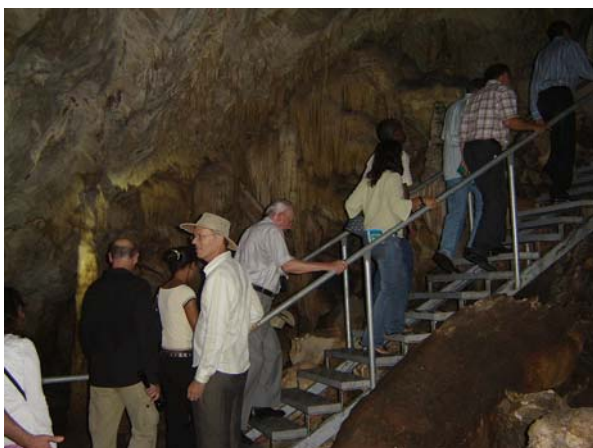
In the visitor centre after the opening, Owen Griffiths points out some historic maps of Rodrigues to the Deputy Prime Minister; Mr Roussety looks on.



GRANDE CAVERNE – A NEW SHOW CAVE OPENS IN RODRIGUES

– Greg Middleton

On 14 July the Mauritian Deputy Prime Minister and Minister for Tourism, Hon. Xavier Luc Duval, and the Chief Commissioner of Rodrigues (equivalent to an Australian State Premier), Mr Johnson Roussety, formally opened the François Leguat Giant Tortoise and Cave Reserve on the Indian Ocean island of Rodrigues (part of the Republic of Mauritius).



Official inspection of part Grande Caverne.
Deputy PM at top of stair; Owen Griffiths in hat.

The revegetation of the reserve, which has an area of about 18 ha, and its restocking with over 400 giant tortoises, is a project of Owen Griffiths, an Australian/Mauritian zoologist, and his wife, Mary-ann, who also run a wildlife park on the main island of Mauritius. The concept of reintroducing giant tortoises to Rodrigues and the selection of the site of the new reserve are due to

Dr Carl Jones, a Welsh biologist who has been responsible for a number of successful wildlife rescue projects in Mauritius.



When the first of the recycled plastic planks arrived there was a scramble to start installing them

The site is entirely underlain by aeolian calcarenite which has formed a number of natural 'canyons' ideal for constraining the tortoises, and many caves – some of which have yielded the bones of the endemic tortoises and the extinct flightless Solitaire. Following the official ceremony, inspection of the visitor centre and some refreshments, the Deputy PM didn't have time to inspect the tortoise enclosures, but expressed the wish to visit the cave.



The first bend posed a problem
(note bash hats are handy for carrying screws)

Unfortunately, due to late arrival of the planking material and lights, only a little over half the cave tour was available but those in the official party expressed great satisfaction at the presentation of the cave. (The full cave is expected to be open by 1 August 2007.)



Bend problem solved!

The first inspection was guided by the Cave Manager, Arnaud Meunier (who has gained experience in cave guiding at Margaret River, Western Australia) with additional comments by the author and, on palaeontological aspects, by British palaeontologist, Dr Julian Hume (who is consultant to the reserve on matters relating to the sub-fossil bones of the Solitaire, other extinct birds and tortoises, found here).

The pathway through the cave has been constructed using recycled plastic planking supplied by Repeat Plastics (Western Australia). This is supported, where the floor is level sediment, by 110 mm diameter polyurethane piping and, where the path crosses rockfall, flowstone, etc, by structural steelwork built by a local contractor. The pathway is nominally 1 metre wide and the planks are 50 mm thick. We were advised that the planking should be supported at 600 mm centres, with 800 mm max. span and this was used with the polypipe. Due to a misunderstanding, however, the steel framework was designed with a 950 mm span. We feared that we may have needed to add an intermediate support but in practice have not found this necessary.



Planking is placed on the first stair
- the heavier, non-slip plank type

The material appears to be stronger than claimed by the manufacturers and provides an excellent walking surface. (The material used in the structural sections is 250 mm wide and is the same as that used in Ngilgi Cave in south west Western Australia, though lighter in colour; that used on the level, polypipe supported sections is a pseudo-woodgrain finish boardwalk/jetty planking 195 mm wide and of reduced cross section ('W' profile) of grey colour.) A totally inexperienced contractor was able to lay and attach about 250 m of the planking in only 8 days, including some tricky corners which probably stretched his geometrical capabilities.

The lighting in the cave was intended to be solely by large six watt LEDs supplied by Weidmüller Pty Ltd of Huntingwood, NSW, but due to late arrival of these (thanks to the carrier and Mauritian customs) some 20 and 50 watt halogen (dichroic) lights were initially installed. These will be replaced by large LEDs. Tracklighting, where required, is by Narva 5-LED licence plate lamps. A benefit of the LEDs, apart from their impressive efficiency, is that they will run on any voltage from about 9 to 33 volts (DC), with equal light output. Hence even a significant voltage drop need not be a problem. The cave will soon be entirely lit by a 28 volt DC supply.

For the moment, Grande Caverne is the world's newest show cave. It is the first cave in Mauritius to be lit by installed electric lighting and only the second such cave in the Indian Ocean region (if one excludes the west coast of WA), Anjohibe near Mahajanga in Madagascar having closed about 50 years ago. The author is acting as consultant for the cave-related aspects of this project and has personally fitted all cave wiring and lighting. Advice from Andy Spate in relation to the lighting, and from Peter Bell in relation to the pathway material and other aspects, and input from Elery Hamilton-Smith has been most helpful.