

# 17<sup>th</sup> INTERNATIONAL CONGRESS of SPELEOLOGY MANAGEMENT of WHITE NOSE SYNDROME



The Australian Speleological Federation has developed protocols and information for delegates attending the 17<sup>th</sup> International Congress of Speleology in Australia in July. The following information has been provided to field excursion leaders and is reproduced here for the benefit of all ACKMA members. It provides some useful information for consideration with cave hygiene beyond the specific purpose for which they have been developed.

## Incorporating Safe Operating Procedures for Use of the Isopropyl Alcohol Wipes and Hydrogen Peroxide

### Isopropyl alcohol (also called isopropanol or dimethyl carbinol).

- The product we are being supplied with is: Isowipe Mini Cannister with 150 x wipes 21 x 14.3 cm in size.
- Equipment to be disinfected with Isowipes
  - Helmets
  - Lights
  - Cameras
  - Camera accessories
  - Other equipment glasses, compass, GPS etc
  - Karabiners, prusik devices, ascenders, stops etc
- For skin protection, wear washing-up type gloves when using the wipes. The product should be kept away from eyes.
- The Isopropyl wipes are not designed for fabric items such as seat harnesses. These items should have been washed before being brought to Australia.
- The helmet harness should be spray-treated with hydrogen peroxide (as below).
- Used wipes should be disposed of with ordinary rubbish and certainly not flushed in toilet systems.
- Leaders should ask participants about the cleanliness of their gear and how they have treated it before bringing it to Australia and New Zealand. Participants have been advised to 'expect to be asked'.

- Treat leather boots and other footwear with the hydrogen peroxide liberally inside-and-out. We estimate to allow 100 mls per participant.
- Empty excess fluid after 30 minutes and allow boots to dry.
- Hydrogen peroxide leaves no residual nasty chemicals and boots do not need rinsing after treatment.
- There are no residual clean-up problems with hydrogen peroxide. Unused hydrogen peroxide should be diluted and discarded as waste-water.

### Materials needed for WNS fungus disinfection protocol

- Kitchen wash-up gloves
- Wear protective eyewear and kitchen-gloves for hydrogen peroxide handling.
- Hydrogen peroxide, obtain via pharmacy in 200 ml bottles at 3% or 6% solution at about \$6.00 per 200 ml bottle. 6% preferred. (Alternate suppliers include supermarkets and hardware stores.) If larger quantity or higher percentage product obtained, dilute with water paying attention to risk management as above.

### Hydrogen Peroxide

- Hydrogen peroxide at 3% and 6% is recommended and is available at pharmacies. It is available at much higher concentrations from some chemical suppliers for industrial uses etc.
- To reduce the risk of safety issues, we recommend against using stronger concentrations. However, should anyone source a higher concentration of hydrogen peroxide then pay attention to handling (gloves and eye protection with observer present with a hose available for flooding the operator or area should splashes or a spill occur) and dilute portions to 6% or 3% with water.
- Hydrogen peroxide is a potentially dangerous chemical. Eye protection and gloves should be worn when using it.
- We are leaving field excursion leaders to source the hydrogen peroxide as it is unstable and needs to be used when fresh (unopened bottle) as it deteriorates after opening.
- The hydrogen peroxide 3% or 6% solution is best put in a cleaned spray dispenser, obtainable new from supermarket.



*A healthy Naracoorte Caves' Southern Bentwinged Bat (left) and a US bat infected with White Nose Fungus*

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