

Submersible Gear

Submersible gear involves all clothing and equipment that can be submerged without damage.

Wash all clothing and any appropriate equipment in washing machine or by hand using conventional detergents. You can use cold, warm or hot water and Woolite® fabric wash is highly recommended.

Footwear

Where possible, rubber (wellington-type) caving boots (which withstand harsh decontaminating products and are easily cleaned) are recommended.

- 1) Boots need to be fully scrubbed and rinsed to remove all soil and organic material.
- 2) Decontaminate rubber and leather boots, (including soles and leather uppers) with one of the recommended products for a minimum of 10 minutes
- 3) Rinse and air dry

Ropes and Harnesses

- 1) Wash rope/webbing in a front loading washing machine on the gentle cycle using Woolite® Extra Delicates detergent

- 2) Immerse in a dilution of Lysol IC Quaternary Disinfectant Cleaner for 15 minutes.
- 3) Rinse twice in clean water and air dry
Brands not tested should be dedicated to one cave or not used at all to prevent the spread of WNS

Non-submersible Gear (equipment that will be damaged by submersion)

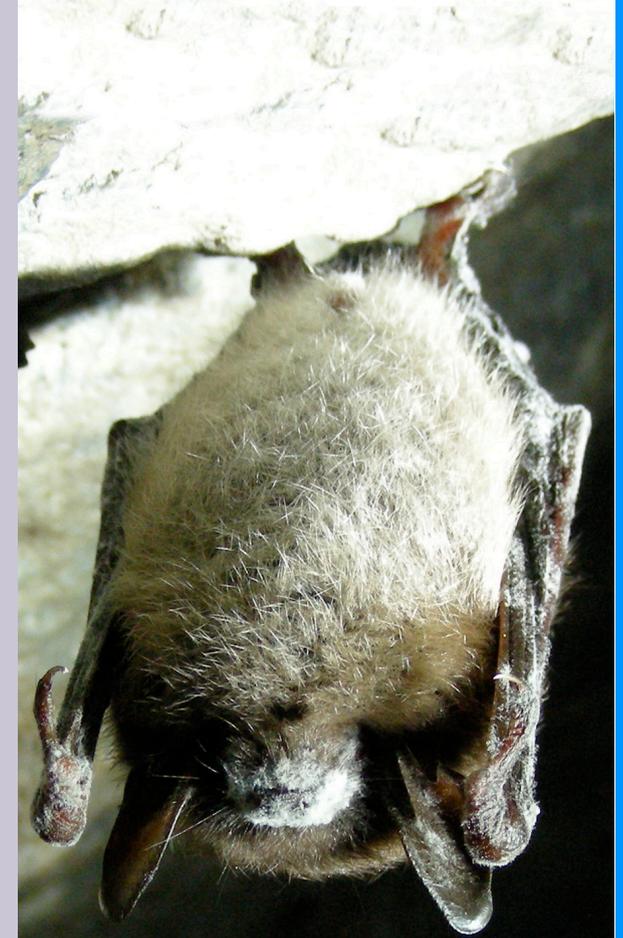
- 1) Clean thoroughly with soap and water
- 2) Decontaminate using recommended decontaminating product to the outside surface for a minimum of 10 minutes
- 3) Rinse and air dry

Cameras and Electronic Equipment

If possible, do not bring electronic equipment into a cave. If practical, cameras and other similar equipment that must be brought to a cave may be:
-Placed in plastic casing (i.e. underwater camera housing)
-Or wrapped in plastic wrap where only the lens is left unwrapped to allow for photos to be taken. The plastic wrap can then be decontaminated by using Lysol® Disinfecting Wipes and discarded after use or wipes can be applied directly on camera surfaces or plastic casing.

For more information: www.id.blm.gov or www.fws.gov/whitenosesyndrome

Front picture: little brown bat with white nose syndrome.
Credit: Marvin Moriarty, USFWS



Save Idaho's Bats!

**Decontamination
Procedures for White
Nose Syndrome**

White-Nose Syndrome

Why are America's Bats Dying?

Since the winter of 2006-2007, at least one million insect-eating bats from at least nine states have died from White Nose Syndrome (WNS).

This illness, named for the white fungus often seen on the muzzles, ears, and wings of infected bats, poses a threat to cave hibernating bats of the United States and potentially all temperate regions of the world.

Scientifically called *Geomyces destructans*, the fungus invades the skin of bats, producing ulcers and often altering bats' hibernation arousal patterns, making them leave their hibernation before they are ready and causing them to starve.



Little brown bats with white-nose syndrome, New York. Photo courtesy Nancy Heaslip, New York Dept. of Environmental Conservation.

How you can help

Scientists are currently working to determine if fungal infection is the sole cause of WNS-associated bat mortality, but you can help prevent the spread of the fungus by decontaminating your clothing, shoes and gear before and after entering caves.

Why Decontaminate?

Decontaminating not only helps prevent the spread of the fungus, it reduces the risk of other potential fungal, bacterial, or viral agents within caves. It also reduces potential disease-related impacts to humans.

How to Decontaminate

Decontamination procedures should be followed between every cave/mine visit.

Several cleaners and disinfectants can be used in the decontamination process:

-Lysol® IC Quaternary Disinfectant Cleaner with a minimum of 0.3% quaternary ammonium compound.

- Lysol® All-purpose Professional Cleaner with a minimum of 0.3% quaternary ammonium compound.
- Formula 409® Antibacterial All-Purpose Cleaner with a minimum of 0.3% quaternary ammonium compound.
- A 10% solution of **household bleach**: 1 part bleach to 9 parts water
- Lysol® Disinfecting Wipes
- Boiling nets and other submersible gear for 15 minutes

***Do not use alcohol; it is ineffective at killing the bacteria.**

What gear gets decontaminated and how?

Any clothing, footwear and gear, including outer clothing, should not be used in multiple caves in the same day unless the cleaning and decontamination can be performed between each cave.

- 1) Remove all soil and organic material from equipment, clothing, and boots using water and a brush.
- 2) Rinse thoroughly
- 3) Follow by soaking for a minimum of 10 minutes using recommended products.
- 4) Rinse and air dry

***For a clothing alternative: use Tyvek® or ProShield® brand disposable suits.**