

Chytrid Information from Betsy Bolster, California Dept. of Wildlife

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Chytridiomycosis is the worst infectious disease ever recorded among vertebrates in terms of the number of species impacted, and its propensity to drive them to extinction (from "Declaration: Amphibian Conservation Summit, Washington DC, 17-19 September 2005"). A global mapping project underway helps put the magnitude of the disease in perspective:

<http://www.parcplace.org/bdmap2008update.html>

A summary of what is and isn't known about chytrid (based on a November 2007 conference attended by chytrid experts from around the world and wildlife agencies throughout the US and Canada) is expected to be posted on the following web page after April 1:

http://www.parcplace.org/Bd_conference.html

Until that info is available, a 2004 hygiene protocol is available at <http://www.jcu.edu.au/school/phtm/PHTM/frogs/control.htm#quarantine> (However, be aware that this protocol indicates that drying kills chytrid zoospores, but that has since been found not to be the case - there may be other errors, due to the age of the document and volume of new info becoming available about the disease.)

At the 2007 conference, my notes indicate that Purnima Govindarajulu (BC) mentioned that her survey crews disinfect their gear with a 4% solution of bleach applied for 15 minutes. In California, our CDFG amphibian sampling crews use either bleach or Quat. Quat is easy on gear (Quat is actually a brand name industrial cleaner) and works for both chytrid and ranaviruses (another amphibian disease issue), although I believe its half-life in the environment was said to be longer than that of bleach. Bleach doesn't work on New Zealand mudsnails.

In California, a number of amphibian researchers in high mountain lakes use the following protocol for Quat: Disinfect all gear used in a lake (dip nets, waders, booties, gill nets, etc.) before moving from one site (i.e., watershed) to another. To disinfect your gear, use a 0.5% solution of Quat 128. Fill your collapsible decontamination bucket about half full of water and add half of a small nalgene of Quat to the water. After removing mud and debris from your gear, soak all items for 5 minutes. Dispose of the disinfection solution >100 m from water on bare soil or rock. Do not rinse the disinfected equipment with lake water as this will negate the disinfection process.

The choice between the use of Quat and bleach depends what the situation is - Quat is often best for back country use, as the consequences of it spilling in a backpack are less dramatic than for bleach.

I encourage bat researchers who use equipment in aquatic situations to decontaminate. This disease is complex and information is updated frequently. I suggest contacting your state game and fish department amphibian contact for potentially more information beyond what I've mentioned here, as well as referring back to the PARC website in April for updated information on the subject.