BASICS

Salamander chytridiomycosis is an infectious disease caused by the fungus Batrachochytrium salamandrivorans (Bsal). The fungus is a close relative of B. dendrobatidis (Bd), which was described more than two decades ago and is responsible for the DECLINE OR EXTINCTION of over 200 species of frogs and toads. Salamander chytridiomycosis, and the fungus that causes it, were only recently discovered.

Once introduced the FUNGUS is capable of surviving in the environment, in the leaf litter and small water bodies, even in the absence of salamanders.

CLINICAL SIGNS of infected skin, may show reddening and ulceration, and infection is often followed by secondary bacterial infection. SKIN LESIONS are not always obvious, however, and some animals may carry the fungus without clinical signs. In some cases all that is observed is severe lethargy, sometimes weight loss, followed by a quick death.

Chytrid fungi can be TRANSMITTED through contact with water or organic matter (mud, leaf litter, etc.), or by DIRECT CONTACT with an infected salamander.

To DIAGNOSE the disease chytridiomycosis it is necessary to confirm the presence of both skin lesions and fungus. Detection of the fungus can be done with a DNA (PCR) test, usually from a SKIN SWAB.
DEVELOP disease. Confirmation of the fungus in skin sections, along with evidence of skin damage, is necessary to confirm disease.

TREATMENT Research specific to treatment of *B. salamandrivorans* has only begun. ANTIFUNGAL DRUGS could prove effective against the salamander chytrid fungus in captive individuals.

PREVENTION As with frog chytrid fungus, salamander chytridiomycosis could be spread during anthropogenic activities. Boots, clothes, and all field equipment should be CLEANED with a 10% bleach-water mixture before moving between sites. Pet salamanders should never be released to the wild. Water used in captive enclosures should never be dumped outside on the ground.

WILD AMPHIBIANS should not be moved between habitats, and captive animals should not be used as fishing bait.

All newly acquired captive amphibians should be initially QUARANTINED from other amphibians until it has been confirmed that they are disease free.

SUSPICIOUS DEATHS of salamanders both in the wild and in captivity should be reported to enable early detection of this disease.