



Globally, amphibian species are rapidly declining and infectious diseases are thought to be a major cause for this. One third of all amphibian species are thought to be threatened with extinction and others face major population declines. There is a growing concern surrounding the threat that infectious diseases pose to native UK species.

Some diseases of concern for amphibians are:

- Chytridiomycosis
- Ranavirus
- Amphibiocystidium
- Herpes virus
- Ribeiroia

Chytridiomycosis is a fungal disease caused by *Bd* and *Bsal*. *Bd* is known to now be widespread in the UK, though some species seem to be unaffected by it, such as the natterjack toad. *Bsal* is currently undetected in wild UK amphibian species, though is known to infect captive amphibians in the UK. There is a risk of *Bsal* infecting wild species via poor biosecurity measures and illegal releases. *Bsal* is of particular concern for native great crested newt populations as the species is known to be highly susceptible. Some diseases such as the parasitic diseases Amphibiocystidium and Ribeiroia, are understudied and the implications for conserving amphibian species in the UK remain unknown.

A big concern surrounding infectious diseases, are that they are not always noticeable when observing a population. However, by using PCR and upcoming surveying methods such as eDNA (environmental DNA), we can detect diseases such as chytrid by the fungal spores in samples and waterbodies, making it easier to identify infected populations.

Three key findings from research underpin this advice from ARC Trust:

1. Amphibian diseases are frequently found to be spread by human activity; thus, amphibian field workers therefore have a responsibility to minimise risk
2. Amphibian disease emergence is commonly associated with the introduction of non-native species
3. Signs of infection are not necessarily evident on visual inspection

Snake fungal disease is a new disease in the UK and was detected in a grass snake. It is unknown what the conservation implications are and if it is a threat to all native snake species. Regardless of threat level, it is vital that biosecurity measures are followed and should be carried out as common practice when carrying out field work or any other activity that involves amphibians and reptiles. The measures in the document below can be adopted for both amphibians and reptiles.

If you would like to learn about some of the known diseases to infect native UK amphibians and reptiles, please view the posters provided.

Fieldworkers, please find below biosecurity guidelines from ARC Trust under 'Amphibian Disease Precautions: A Guide for UK'.

Captive amphibian and reptile keepers, please find below biosecurity guidelines under 'Reducing disease risks in captive amphibians and protecting our wild native amphibians from invasive disease'

Source for information provided: ARC Trust