

# Finding killer frog fungus in the Marshes:

## But it's not really anything to worry about!

### Intro...

Chytridiomycosis is a disease that frogs get from a fungus called *Batrachochytrium dendrobatidis* or Bd for short. It has dramatically affected amphibians, causing population declines in over 200 species worldwide. In Australia, most populations have disappeared in rainforests and streams along the east Coast (Figure 1). Generally, Bd is thought to not survive in hot, arid conditions.



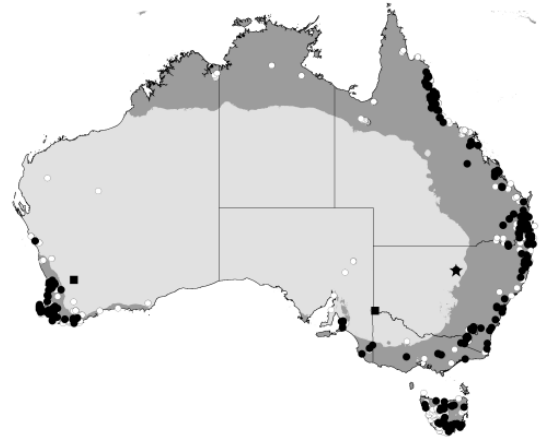
Volunteer Richard Tate swabs a green tree frog (*Litoria caerulea*)

### Results...

These were a little surprising. Seventeen individuals from seven species tested positive. This was unexpected, because due to the high temperatures and dry conditions of the Marshes, Bd was not really expected to occur at all in the area. However, all individuals had a very low infection load, well below what generally causes frogs to die in other areas.

### Methods...

We obtained samples from 271 frogs over 13 species in Feb '09 and Nov '09 to March '10 by swabbing their bellies and feet, and tested them for the presence of Bd.



**Figure 1.** Distribution of Bd surveys in Australia showing localities where Bd was detected (black symbols) and not detected (white symbols). The Macquarie Marshes, is indicated by a star, and positive records in the arid zone (light grey shading, <500 mm annual rainfall).

### Conclusions...

The killer fungus seems to occur in the Marshes, but it doesn't have much killing power, which is great news! But to really say for sure, we'd need to test frogs again during cold months when frogs are more vulnerable to the fungus to likely to get sick. The study was valuable because we showed assumptions about Bd were wrong, and that there is a lot more to learn about how the fungus behaves and survives in semi-arid regions in Australia.

### Acknowledgments...

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