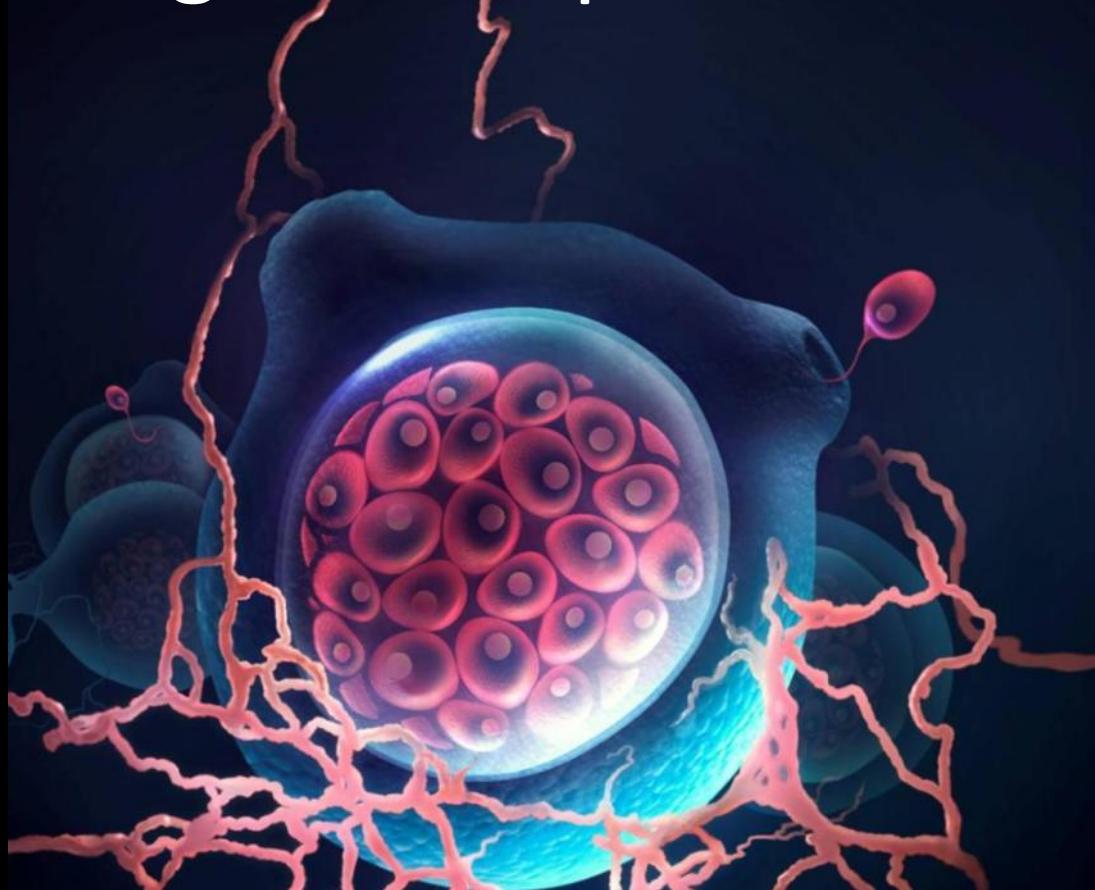


Batrachochytrium salamandrivorans endangers Europe's salamanders

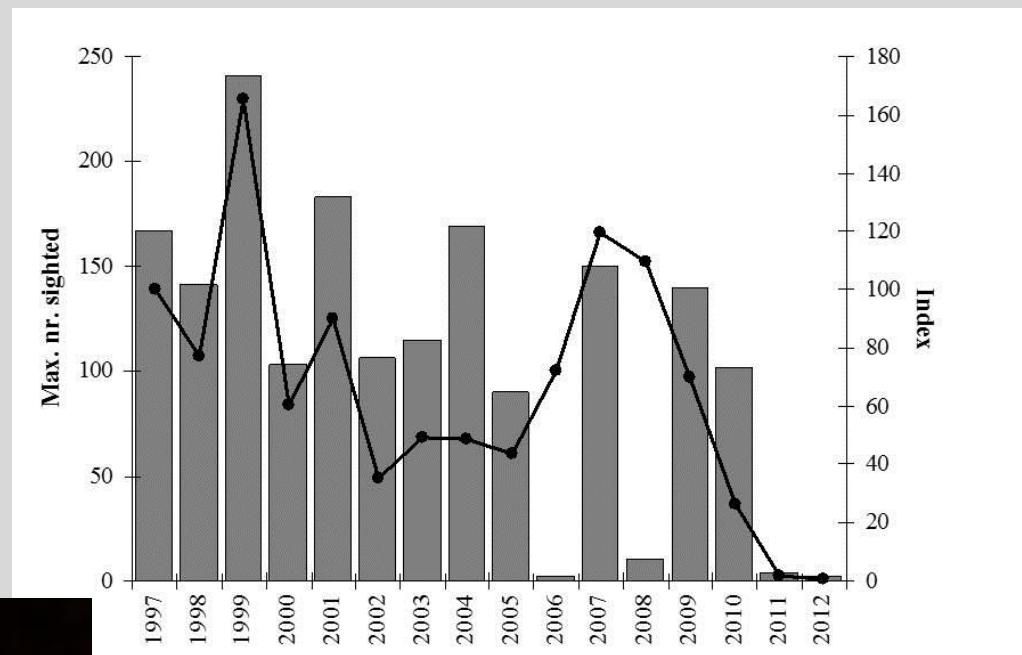


An Martel, Frank Pasmans
Faculty of Veterinary Medicine, Ghent University

Salamandra decline in the Netherlands



Sharp decline since 2008

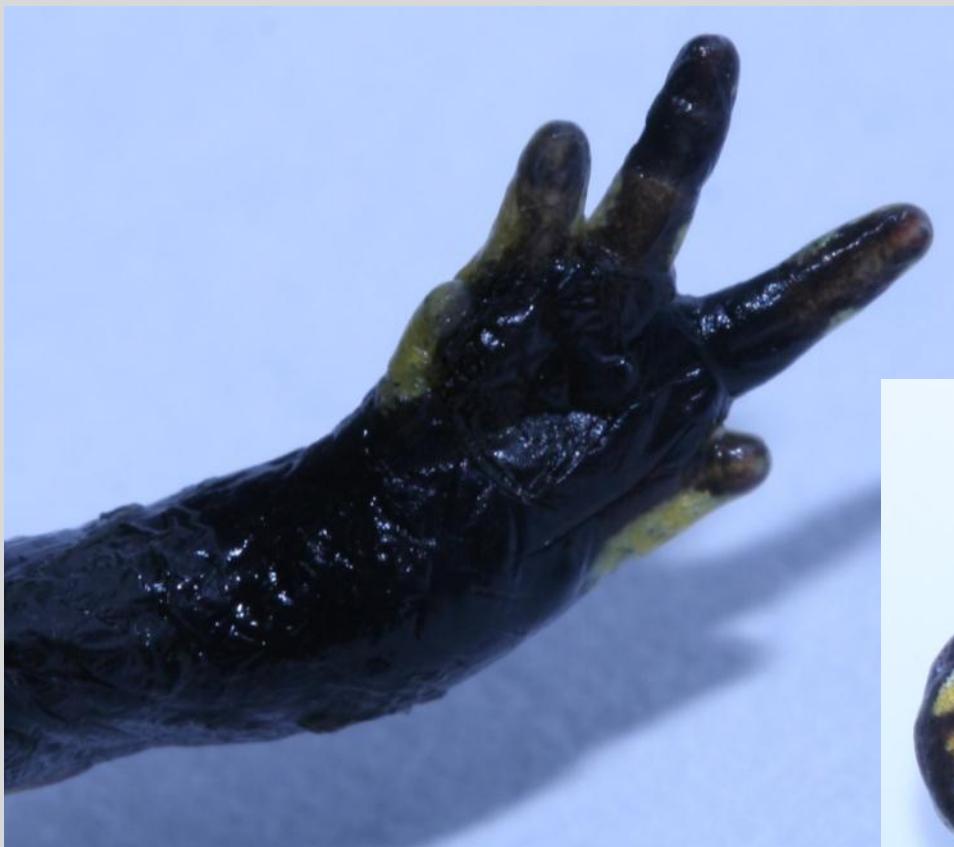


Clinical symptoms

anorexia, apathy and ataxia



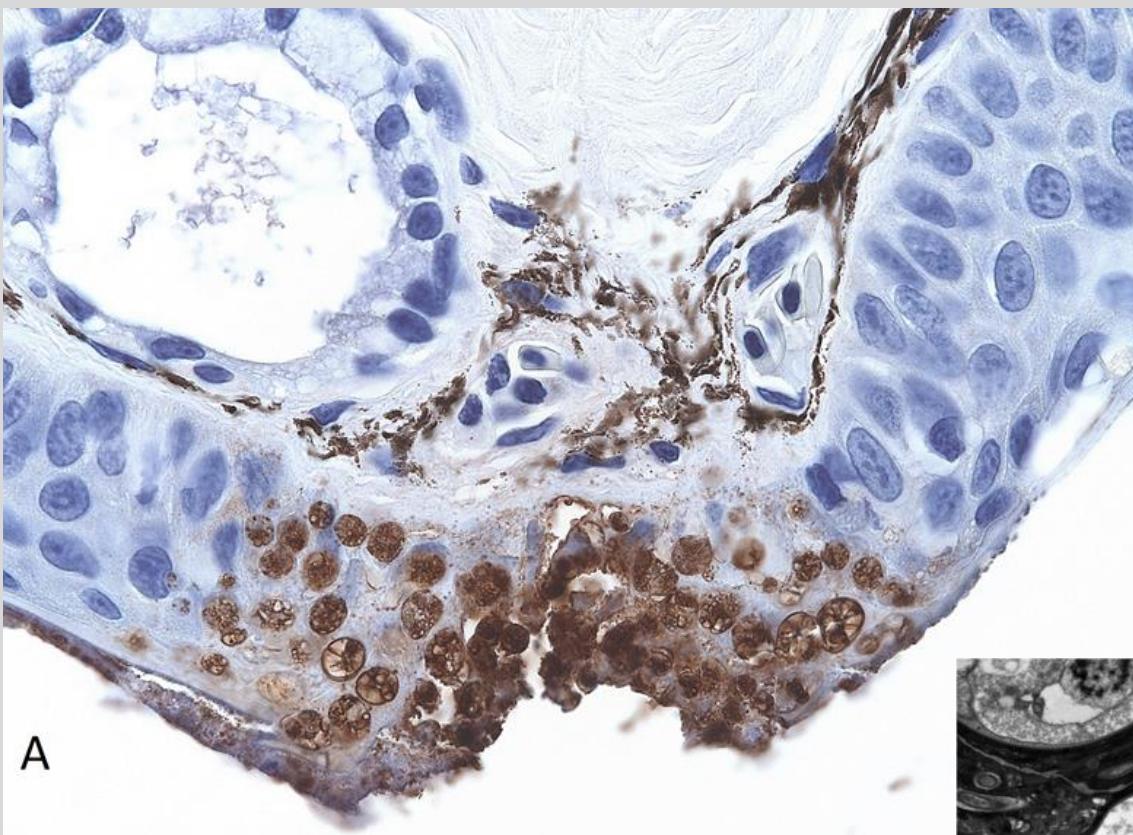
Clinical symptoms



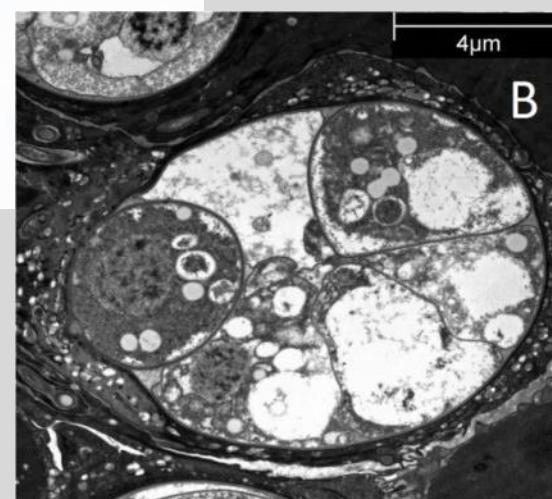


Necropsy

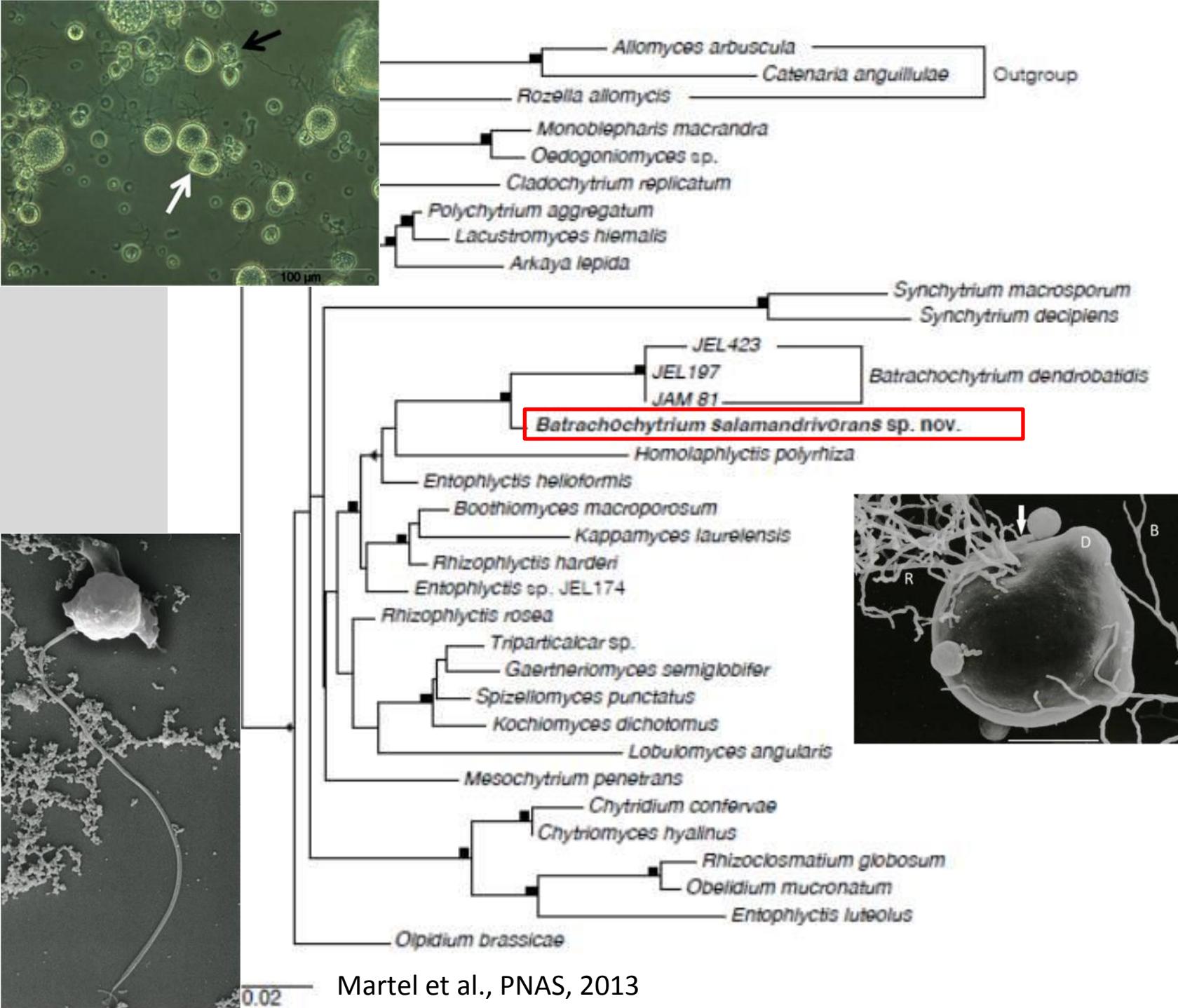
Bd qPCR: negative



A



B



Host range of *B. salamandivorans*

Experimental infection:



Amphibians exposed for 24 h to 5000 zoospores

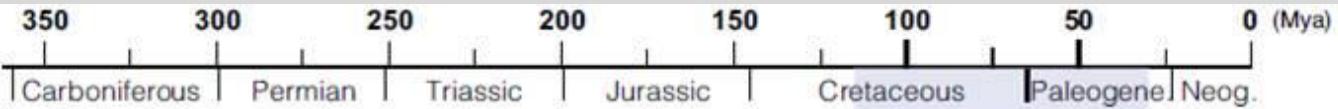
10 anurans



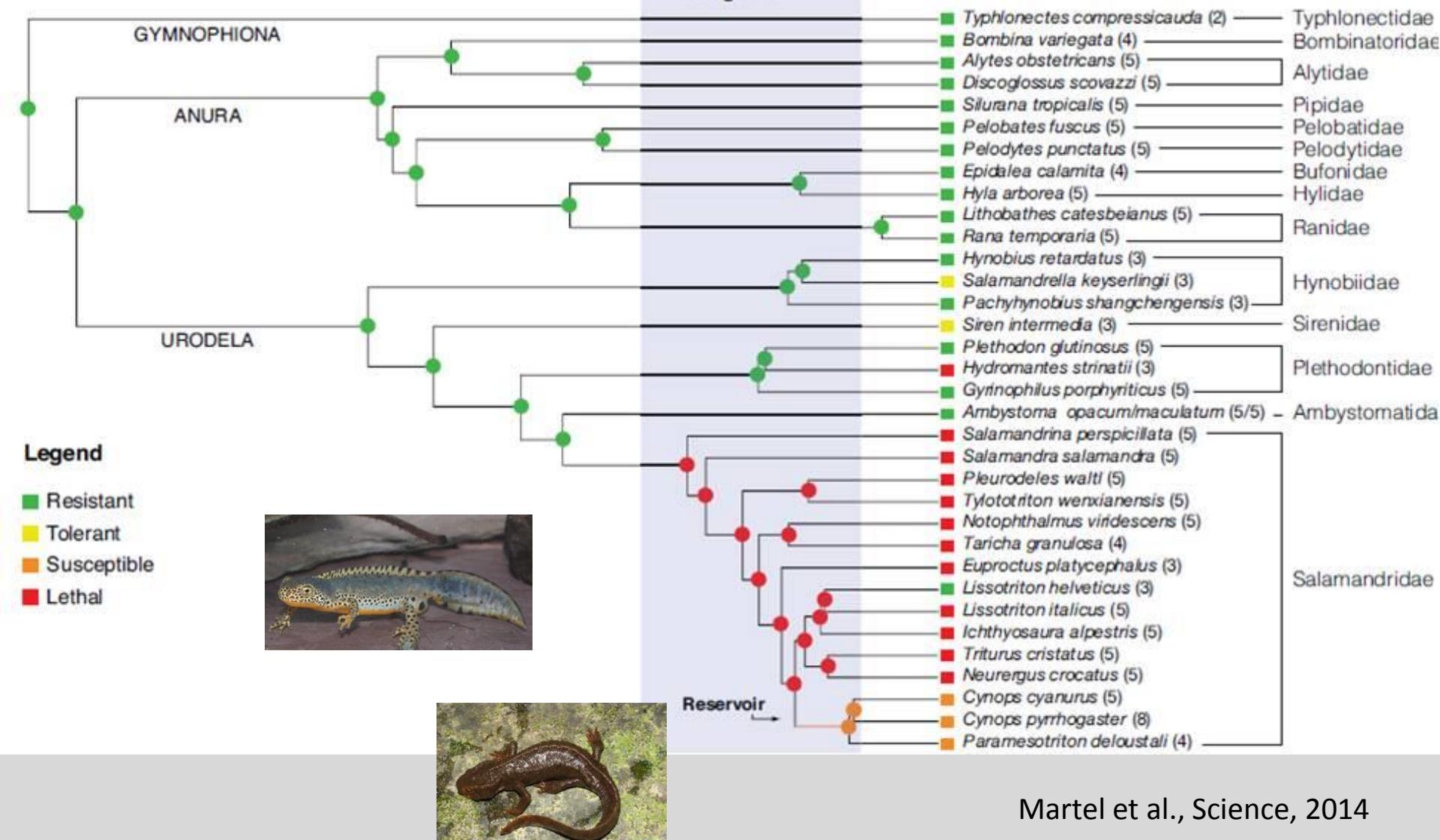
24 urodelans

1 caecilian





Origin Bs





Origin: Asia



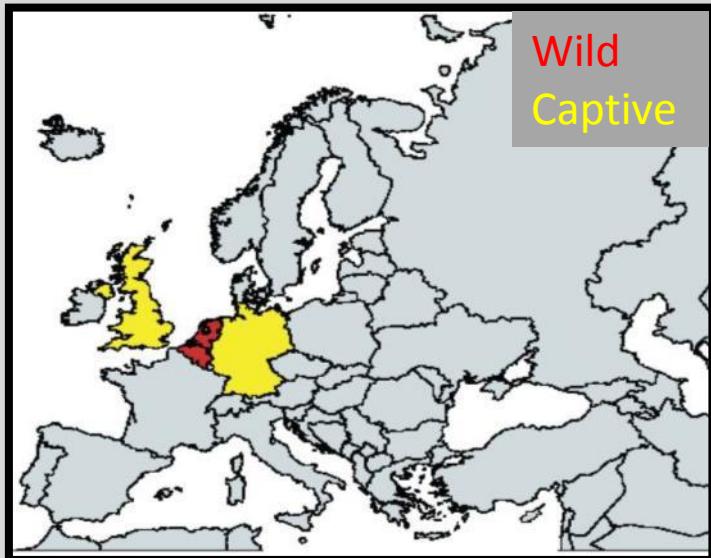
- Asian species: less disease, no association with declines
- 4% of 432 wild Asian urodela positive for *B. salamandivorans*
- Museum specimen: *Cynops ensicauda* 1861
- Trade in live amphibians (2 positive in 2010)

Globalization and lack of biosecurity:
implications for biodiversity

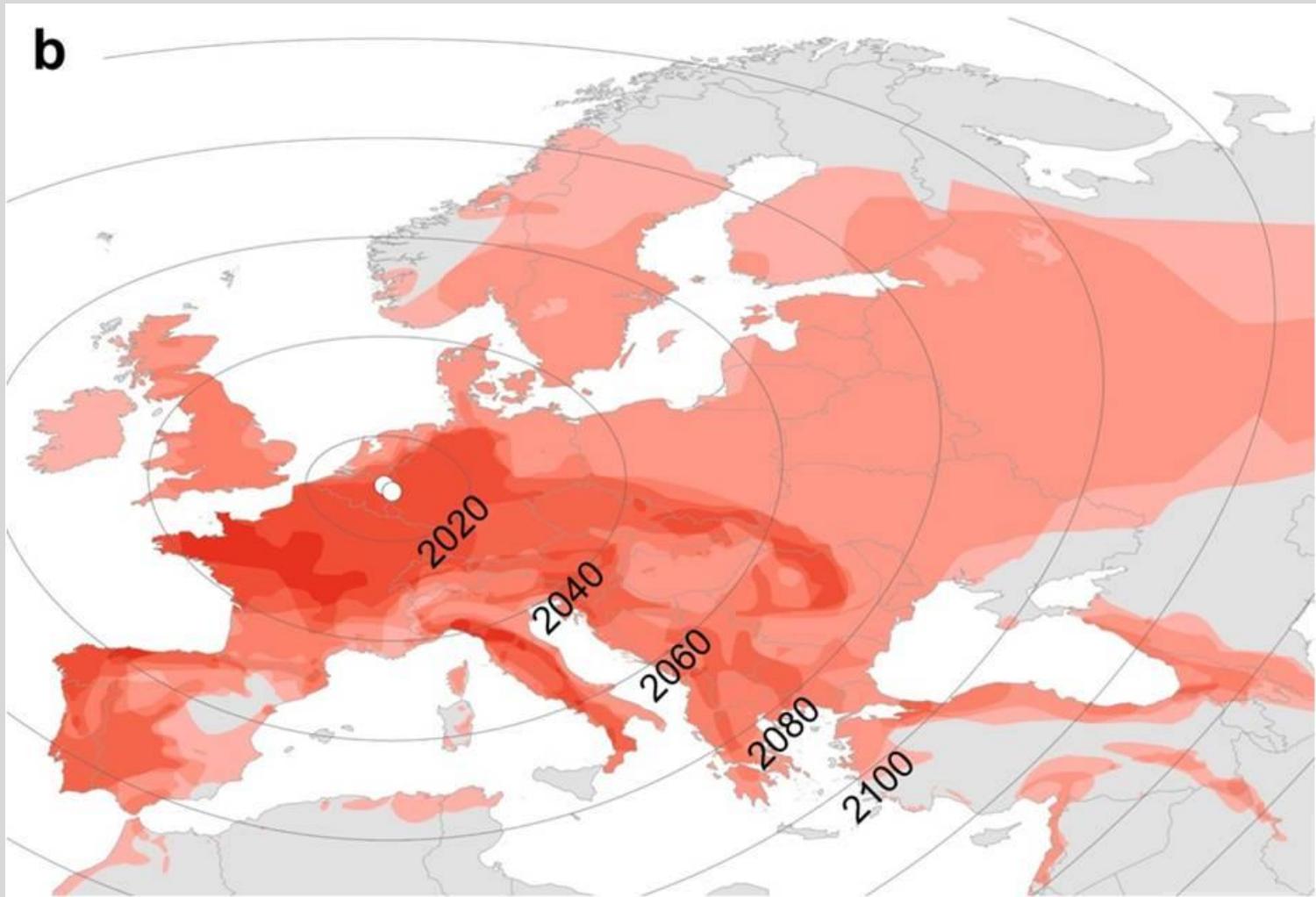
Current situation in the wild

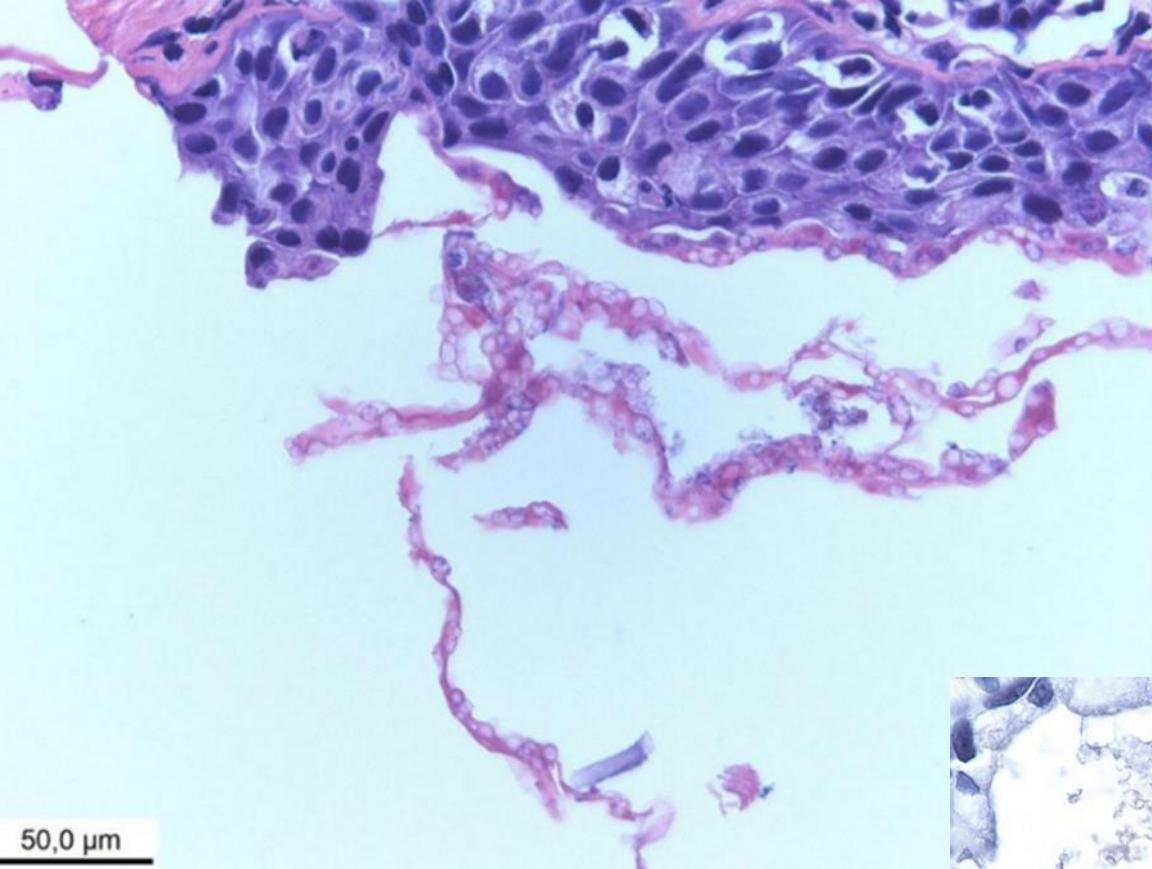


Current situation: Europe



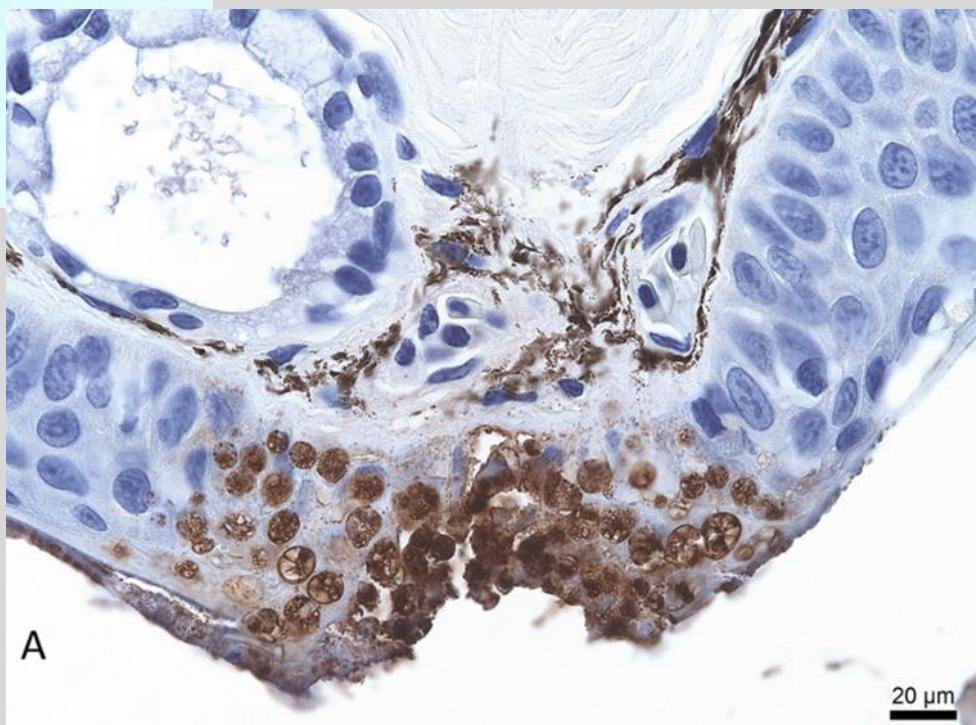
What to expect: worst case





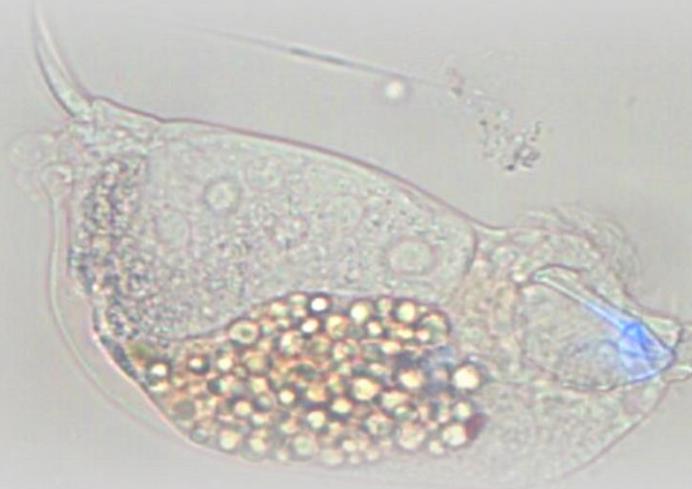
Chytridiomycosis: Diagnosis

- Duplex qPCR



Mitigation

- Captives
 - Easy
 - 10 days at 25°C
 - Voriconazole + polymyxin + 20°C
- Wild
 - ?



B. salamandrovorans threatens European salamanders

- Develop “action plans” in case of outbreak
- Prevent introduction in *B. salamandrovorans* free regions



Thank you for your attention

