

BayCEER Kolloquium

Lectures in Ecology and
Environmental Research

Summer 2018



UNIVERSITÄT
BAYREUTH

Thursday

12.04.2018

12:00 in H6, GEO

Prof. Adam Petrusek

Department of Ecology, Charles University,
Prague, Czech Republic

Diversity and impact of invasive crayfish and crayfish plague: from Czechia to continental scale

Crayfish plague, caused by an oomycete *Aphanomyces astaci*, is a well-studied invasive disease of wildlife with substantial conservational and economic impact. Having stricken Europe already in the second half of 19th century, it has been substantially studied in the past, and became one of the best known diseases of aquatic invertebrates. Still, many aspects of its ecology and host-pathogen interactions are only being discovered in recent years. Original hosts of the crayfish plague pathogen are North American freshwater crayfish that are usually able to resist the infection without major symptoms or mortalities. Crayfish from other biogeographic regions are susceptible to the disease, which remains one of the key threats to native European crayfish populations. Several North American invasive crayfish species are found in European waters, three of these crayfish plague carriers being very widespread. In the talk, I will first summarise the history and present status of invasive crayfish in Europe, and their ecology and diversity. Afterwards, I will discuss the crayfish plague, its life cycle and impact, and some of the most interesting recent discoveries facilitated by development of molecular tools.