**water@leeds SPRING Competition – Abstract**

Invasive alien species (IAS) are an incredibly problematic group of organisms, with exotic plant animal species having spread to and become established within novel regions throughout the world. IAS generate substantial economic costs, with the United States (US), Europe and the UK incurring annual costs of approximately $120 billion, €12 billion and £1.96 billion respectively. IAS also have a significantly detrimental impact upon native biodiversity, with invaders primarily responsible for the collapse and/or extinction of local prey species, subsequently altering the entire community composition.

Compared to terrestrial ecosystems, freshwaters are spatially restricted (occupying ~0.8% of the Earth’s surface) yet disproportionately biodiverse, supporting approximately 6% (~100,000) of all described species. Freshwater ecosystems are particularly susceptible to expanding invasive species, with 11% of invaders categorised as high-impact. IAS frequently exert a direct affect upon native species through predation, competition or hybridisation.

This project, partially funded using the water@leeds SPRING research fund, explores the potential for IAS to have an indirect impact upon native species, through the introduction and spread of infectious diseases to native species in freshwaters. The funding provided has been used to explore diseases-transmission in the lab, in combination with screening animals in the field for natural infections.

Preliminary results obtained from this project indicate that, in addition to IAS directly impacting upon native species through competition and predation, aquatic invaders may also act as vectors for aquatic diseases that threaten indigenous wildlife worldwide.