

Ian Duggan: Research Interests

Invasion Biology

My research primarily involves the investigation of trends in the invasion process and the exploration of invasion vectors responsible for transportation of species at global or finer scales.

Such investigations are useful for;

- 1) determining important vectors, and;
- 2) predicting species that have a high potential for invasion success

Consequently, such approaches allow for the development of management strategies to reduce invasion rates by

providing clues on how important vectors might be disrupted. This is an ecologically and economically preferential approach to control, or the near impossible task of eradication, once organisms have established. Vectors that particularly interest me are the aquarium trade and botanic gardens. I also have an interest in the roles of propagule pressure and biotic resistance on invasion success, and why constructed waters (e.g., hydroelectricity dams, water supply reservoirs and retired quarries) are commonly preferentially invaded over natural waters.



Sampling for zooplankton at Kew Gardens (see Duggan & Duggan 2011)

Zooplankton Ecology

I am interested in the ecology of freshwater and marine zooplankton, and in particular the rotifers. Rotifers have been a much neglected group of organisms in New Zealand to date, with many studies having used poor collection methods (e.g., mesh sizes too large) and without adequate attention given to taxonomic detail.



Collecting zooplankton from a South Island lake

In particular I am interested in studies using resting eggs as determinants of community composition, and their role in dispersal. I am also interested in macrophyte-associated microfauna, and more broadly in wetland zooplankton.