

The CarPN Neutral project: turning a negative environmental problem into a positive environmental solutions.

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Invasive fish are commonly encountered in the Waikato system where nutrient rich conditions and a temperate climate favour the proliferation of invasive brown bullhead catfish (*Ameiurus nebulosus*), carp (*Cyprinus carpio*) and goldfish (*Carassius auratus*). Carp dominate the invasive fish biomass in the Waikato and are considered to be one of the most invasive freshwater fish in the world. By sifting through bottom sediments as they feed, and by being mobile through river networks, these species can assimilate nutrients into their flesh and at the same time release nutrients through re-suspension and defecation thus potentially re-directing the pathway of energy transfer and use in aquatic systems. In this presentation I describe the development and evolution of an invasive fish 'recycling' programme where invasive fish are trapped, digested by thermophilic bacteria and their nutrient rich bodies redirected to address other environmental initiatives. Data from two preliminary trials are discussed; 1. use of processed invasive fish as a lure for trapping other terrestrial pests and 2. their use as an organic fertiliser in dune rehabilitation planting to replace lost nutrients formerly provided by dune nesting sea birds. In the dune planting example the performance of invasive fish fertiliser was compared to commonly used synthetic fertiliser tablets and controls (no fertiliser).