Implications of seedbank dynamics in managing aquatic weeds

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Summary Most aquatic invasive weeds predominantly reproduce vegetatively which allows them to quickly take over invaded habitats. However, even after successful removal of vegetive materials, some water weeds can re-establish from the seedbank. Additionally, substrates also contain seeds of native macrophytes that can aid restoration after weed removal. Thus, seedbank dynamics in wetlands is an important aspect of long term weed management. We extracted seeds from soil cores and assessed seedling emergence to determine seedbank dynamics in lake Kurwongbah, a Brisbane drinking water reservoir, southeast Queensland, Australia. *Cabomba caroliniana* A.Gray (cabomba) is a serious invasive aquatic plant that has infested lake Kurwongbah littoral. The project will investigate the ability of native species to recruit from the soil seedbank after removal of the invasive weed and determine the potential of cabomba to re-establish from seeds. The outcomes of this project will contribute to improving aquatic invasive weed management and restoration of aquatic ecosystems and to provide a better understanding of the soil seedbanks of aquatic plants.

Keywords Seedbank dynamics, aquatic weed management, restoration, freshwater ecosystem