

Management of the online trade of *Salvinia molesta* in Victoria: detection, identification and eradication

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Summary The State prohibited weed (SPW) salvinia (*Salvinia molesta* D.S. Mitch.) is one of the Australia's worst weeds due to its rapid growth and ability to spread via vegetative means. Salvinia is managed by Agriculture Victoria with the aim of eradicating it from the State. Online trade of salvinia is increasing and is identified as a major pathway for dispersal. Agriculture Victoria actively searches for listings of SPWs being sold on major online platforms. This online surveillance has recently detected a surge of salvinia advertisements, with many labelled as the related but undeclared species *Salvinia minima* (Baker). However, as *Salvinia minima* has not been confirmed as present in Australia, it is suspected that salvinia species advertised for sale in Victoria are *Salvinia molesta*. This potential mislabelling increases the difficulty of online detections and the ability to undertake compliance activities. In addition, correctly identifying salvinia is problematic due to the genus being poorly described at the species level. These

hurdles may have a detrimental impact on the eradication of salvinia from Victoria. Definitive identification of *Salvinia molesta* has not been possible through morphology and can only be achieved through deoxyribonucleic acid (DNA) testing. Agriculture Victoria has established a system involving independent laboratory services, utilising DNA barcoding, to identify salvinia plants to the species level, providing a useful tool to accurately identify *Salvinia molesta*. To date, all seventeen tested samples that were advertised for sale as *Salvinia minima* have been positively identified as *Salvinia molesta*. It is therefore highly likely that despite being labelled as an alternative *Salvinia* species, the majority of salvinia species detected online are the SPW *Salvinia molesta* and will be investigated accordingly to ensure timely detection, identification and treatment to provide the best chance at eradication.

Keywords DNA barcoding, dispersal, eradication, noxious weeds, surveillance