



BRIEF: Information on interactions between kina and exotic *Caulerpa*

To:	Hon Shane Jones, Minister for Oceans and Fisheries		
From	Stuart Anderson, Deputy Director-General Biosecurity New Zealand		
Date	31 January 2024	MPI Reference	MO24-0033
Priority	Low	Security Level	In Confidence

- This brief responds to your request for information on the interaction between kina and exotic *Caulerpa*.
- An independent technical advisory group (TAG) commissioned by Biosecurity New Zealand (BNZ) in 2021 concluded that:
 - it is uncertain whether kina will consume exotic *Caulerpa*; and
 - kina cannot access certain habitats where exotic *Caulerpa* is present – areas between high and low tide, and at depths of greater than 15 metres (exotic *Caulerpa* has been found at depths of approximately 40 metres in New Zealand).
- Subsequently, National Institute of Water and Atmospheric Research divers have observed kina grazing on exotic *Caulerpa*, and BNZ commissioned early-stage laboratory-based research to investigate whether kina will consume exotic *Caulerpa*.
- Preliminary results from this study show that kina did eat exotic *Caulerpa*, but it has yet to be demonstrated as a preferred food source, and the rate of consumption is currently unknown.
- From the preliminary research undertaken, outstanding knowledge gaps remain, including the environmental conditions under which kina grazing could be an effective tool for managing exotic *Caulerpa*, presence of algae in influencing kina diet choice and feeding rate, and the depth range on the use/suitability of kina as an exotic *Caulerpa* management tool.
- In February, Biosecurity Officials will be providing the Minister for Biosecurity with advice on options for the long-term management of exotic *Caulerpa*. This will include advice on the use of management tools currently available and exploring and trialling other/new potential tools; this could include further research into understanding the suitability of kina as an exotic *Caulerpa* management tool.