



HATCHERY REARED SEAHORSES GET THE MARK OF APPROVAL

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The illegal trade of wild caught seahorses may be a thing of the past thanks to an innovative marking technique developed by marine scientists at Queenscliff's Marine and Freshwater Resources Institute (MAFRI).

The recently completed project, funded by Environment Australia, set about to determine whether there was some way to distinguish between hatchery reared seahorses and illegally caught wild seahorses that were destined for export sale.

In Australia, seahorses and their relatives became protected species in 1999 under the Environment Protection and Biodiversity Conservation Act. This act prohibits the capture, trade and export of wild caught seahorses without a permit. Since the introduction of this act, seahorse aquaculture farms have been established at a number of locations in Australia. These farms breed, culture and supply seahorses for the aquarium trade and for export to China for use in traditional Chinese medicine.

The project investigated the use of a harmless chemical, strontium chloride, to permanently mark the otoliths, or ear bones, of the hatchery reared seahorses. Numerous trials were carried out to determine the correct concentrations of strontium chloride that were needed to mark the otoliths.

A simple, effective and cost-efficient method was established that produced a mark on the otoliths of hatchery reared seahorses. This mark was visually discernible under a microscope, and would not be present on wild caught seahorses.

In the event of intercepting a batch of seahorses for export sale or aquarium trade, a random sample of the shipment could be easily collected and analysed to determine the presence or absence of a strontium chloride mark on the otoliths. Any illegal trade in wild caught seahorses could then be detected and the persons involved prosecuted.

This method, once adopted by seahorse hatcheries around Australia, has the potential to halt the illegal trade of wild caught seahorses and ensure the protection of wild seahorse populations.

For more information about this project, please contact Corey Green at MAFRI on (03) 525280111.

Please note: Any publicity to do with this project requires the permission of Environment Australia.