

Roving around: Using a remotely operated vehicle to map subtidal estuarine habitats

Johan Wasserman¹, Louw Claassens^{2,3}, Taryn Riddin¹, Janine Adams¹

¹ Nelson Mandela University, Department of Botany, Port Elizabeth, 6031, South Africa

² Rhodes University, Department of Zoology and Entomology, Grahamstown, 6139, South Africa

³ Knysna Basin Project, Knysna, 6571, South Africa

A clear baseline is critical in evaluating conservation and management success across time. This is particularly pertinent when it comes to habitat changes over time, and focus is usually given to those habitats that are easily mapped such as intertidal habitats. Subtidal habitats, especially those found in estuaries, have largely been overlooked owing to the difficulty and cost involved in the mapping process. This study tests the use of an open source remote operated vehicle (OpenROV®) in identifying, classifying and mapping subtidal habitats in the Knysna estuary, South Africa. Mapping was conducted over fifteen days in June 2018. Eight habitat types were identified, which covered an area of 856 ha. The dominant subtidal vegetation found included *Zostera capensis*, *Caulerpa filiformis* and the non-indigenous *Asparagopsis taxiformis*. This study found that the use of an open source ROV to map the subtidal habitat of an estuary is not only possible, but also time and cost effective, and it is suggested that this approach be used to develop future subtidal estuarine habitat baselines.

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