Going with the flow: genomic insights into ecological connectivity in the Kimberley

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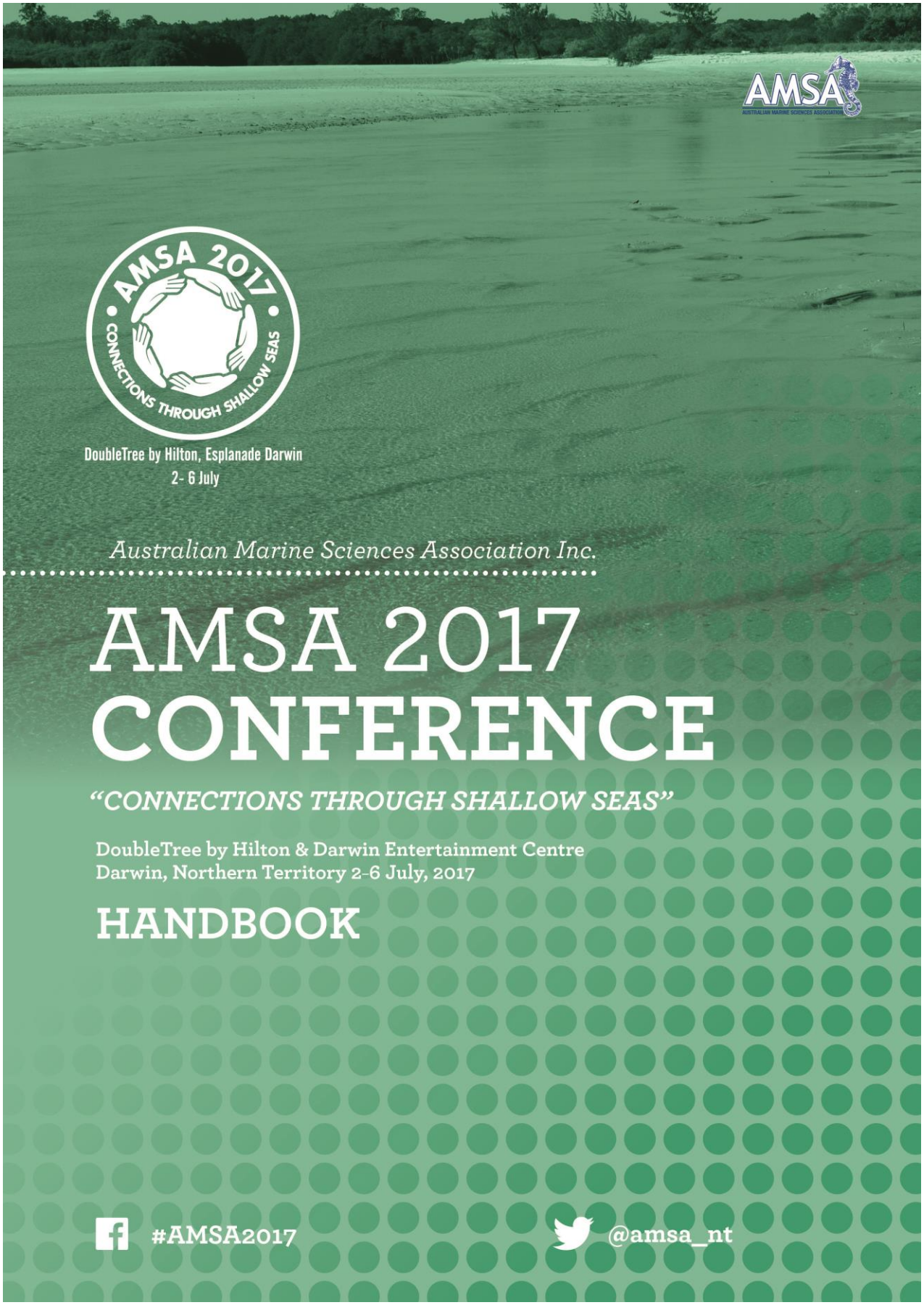
Obtaining an understanding of ecological connectivity within marine systems is central to the design of marine reserves and the management of harvested species. In practice however, connectivity is spatio-temporally complex, and detailed studies across multiple scales and taxa are needed to reveal the way biogeography, life-history and environment interact. The inshore Kimberley provides a new frontier for connectivity studies because of the unique and dynamic tidal regime and often harsh environmental conditions. It is unclear how such a unique hydrodynamic regime should influence dispersal of marine larvae in the Kimberley. Conceivably it could enhance dispersal, but equally, it could act as a disruptive barrier to dispersal. Here, we discuss eight key findings of the recent WAMSI Ecological Connectivity project, which investigated ecological connectivity in seven organisms (two hard corals, two seagrasses, a mollusc and two fishes) at both fine and broad scales in northwestern Australia.



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