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Conference Programme

Planning for the future: A broad-scale risk assessment of multiple anthropogenic threats to flatback turtles

Abstract

Long-term conservation planning of threatened, long-lived migrating marine species such as marine turtles is challenging. The North West Shelf Flatback Turtle Conservation Program (NWSFTCP) is one of the largest biodiversity offset programs in Australia and aims to increase the conservation of flatback turtles through research and monitoring, intervention, education and communication over 30 years. An eight-day aerial survey revealed that flatback turtles nest on more than 150 islands on the North West Shelf of Western Australia and on large extents (i.e. 100s km) of the mainland coastline making the management of this stock even more challenging. Although parts of their nesting range remain pristine, there are substantial overlaps with multiple human activities such as large ports, oil and gas exploration, extraction and processing and other urban development. For long term strategic planning that ensures effective species management and accountable use of government funds it is essential to prioritise management actions within a transparent framework. Fundamental to this is to understand and evaluate pressures acting on key areas of the life history of a species within a risk assessment framework to highlight vulnerabilities within current and future scenarios. We used the InVest Species Risk Assessment model to quantify the cumulative impacts of human-use stressors on flatback turtle rookeries in Western Australia. Key components of the model included turtle nesting density, level of impact on eggs, hatchlings and nesting turtles and assessment of multiple and cumulative pressures through space and time.

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Topic Area

Topics: Effective marine conservation planning

Session

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