Preliminary results of the abundance, distribution and habitat use of the Indo-Pacific bottlenose dolphin *(Tursiops aduncus)* along the southeast coast of South Africa.

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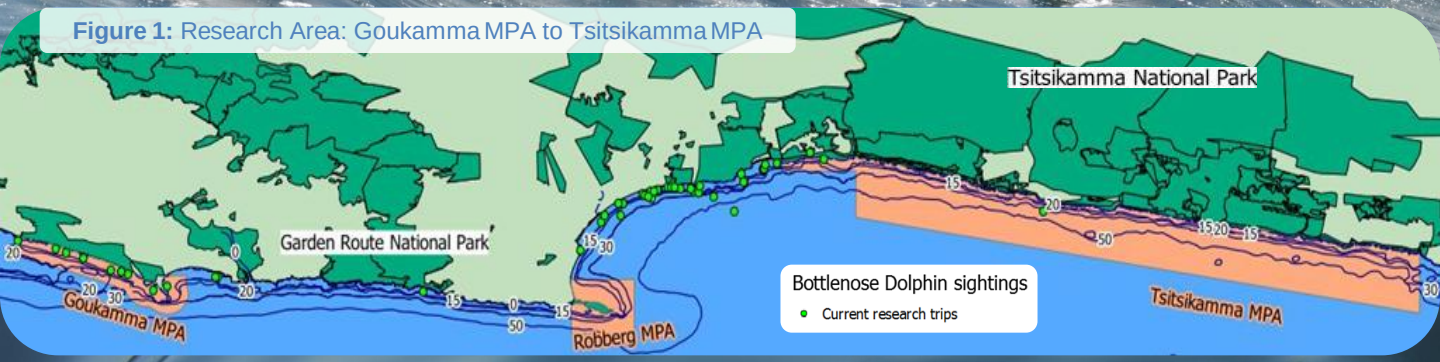
Introduction

• Information on Indo-Pacific bottlenose dolphin (*Tursiops aduncus)* is limited ('data deficient', IUCN). Includes population status, habitat use, movement patterns, genetic structure.
• Also, poor understanding of effectiveness of marine protected area (MPA) networks in protecting these and other marine top predators.

Aim

Address these gaps of understanding, focusing on the south east coast of South Africa (Goukamma to Tsitsikamma MPAs including Plettenberg Bay; see Figure 1).

Figure 1: Research Area: Goukamma MPA to Tsitsikamma MPA



Methods

• Bi-monthly boat surveys (8 knots) to locate dolphins and conduct detailed observations, 2013-15.
• Seasonality and abundance estimates (mark–recapture: robust design model) based on fin catalogue (2002-15). Two other models will compare previous abundance results: closed population model (Plettenberg Bay) and POPAN open population model (Algoa Bay).

Preliminary Results & Discussion

Relative to previous observations in Plettenberg Bay in 2002-03:
• Habitat use and preferred areas have remained constant;
• Rates of encounters are similar (see Table 1);
• But mean group size decreased (see Table 1);
Low re-sighting rates of known individuals (fin ID) seem to confirm that *T. aduncus* in the study area are migratory, but further validation required.

Other aspects of the project

• Aerial survey every other month for abundance estimates;
• Attempt deployment of satellite tags on dorsal fins of individuals (n=7) to assess movement patterns;
• Genetic analysis (skin and blubber samples) to determine genetic structure of pods visiting the study area.

Table 1: Comparison of Plettenberg Bay sightings between 2002-03 and first year of this study

	Jan 2002 – Dec 2003	Jul 2013 – June 2014
Total trips	91	33
Sighting rate	55%	60%
Minimum group size	2	1
Maximum group size	500	45
Group size mean	120	12

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