

Heaviside's and Dusky Dolphin Abundance and Acoustics within the Namibian Islands' Marine Protected Area, Namibia



Research Team:
Dr. Simon Elwen, Dr. Tess Gridley,
Morgan Martin (PhD Student)

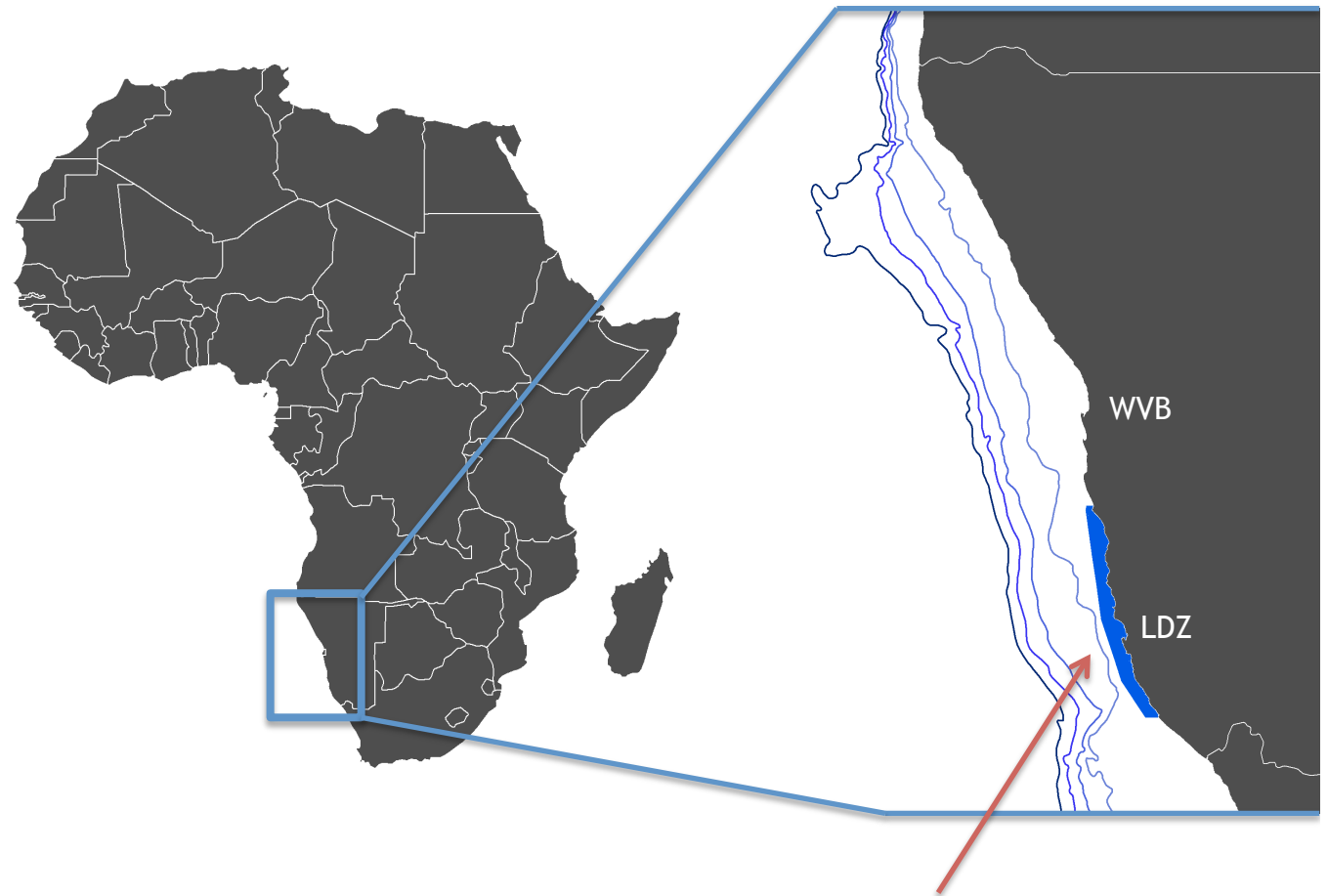


First record of a gray whale in the Southern Hemisphere



Namibian offshore environment

- NIMPA est. in 2009
- 400 km x 30 km
- Home to many rare birds and cetaceans



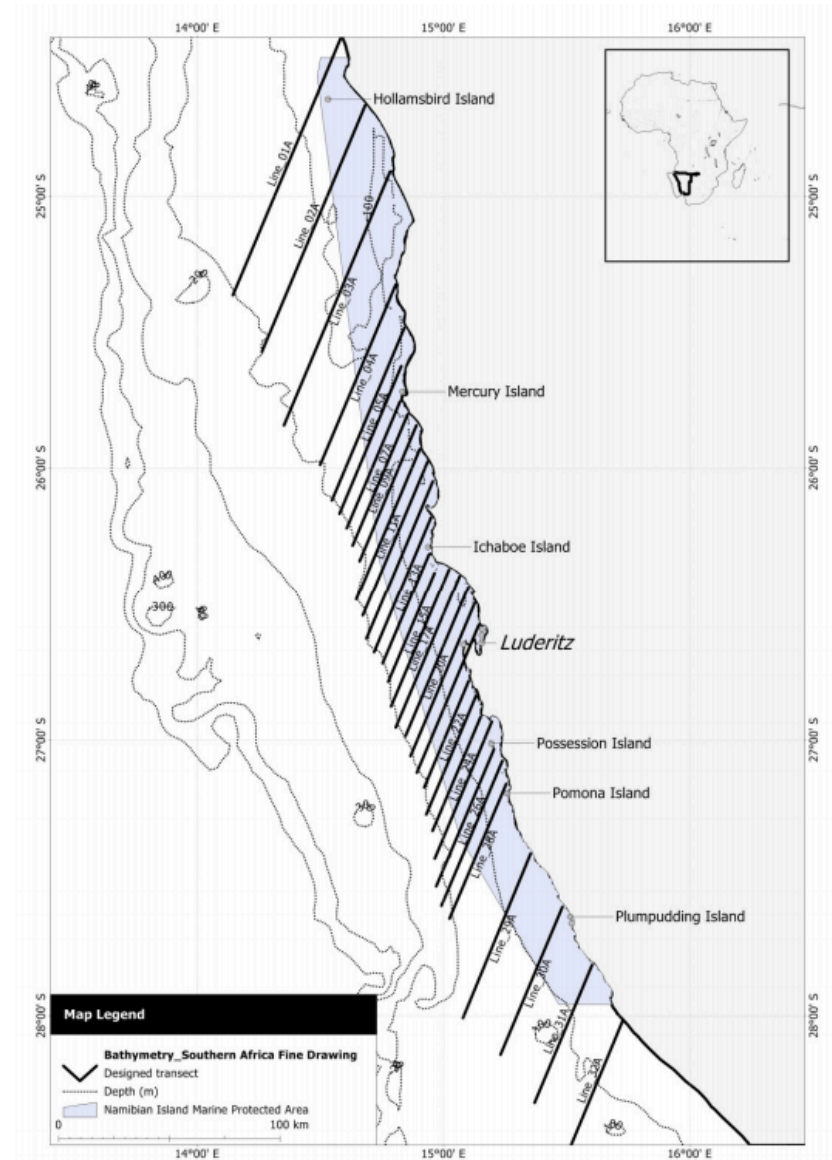
Namibian Islands' Marine Protected Area (NIMPA)

Survey Route & Vessel



Ministry of Fisheries and Marine Resources' Research Vessel: *RV Anichab*

- NDP has acoustic and visual survey data from 2012-2014
- Surveys will resume in 2016



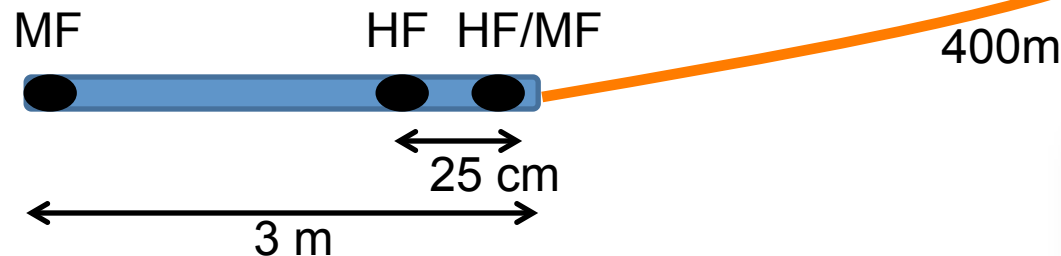
Acoustic and Visual Surveys

Towed array:

- 400 meters long
- Towed at ~10 meters depth

Hydrophone elements:

- High Frequency (400 Hz – 250 kHz)
- Medium Frequency (400 Hz – 96 kHz)



Visual surveys conducted using distance sampling (Buckland et al. 2001)



Vocal Behavior of Target Species



Heaviside's dolphins:

- Narrow Band, High Frequency (NBHF) clicks – 125 kHz (Morisaka *et al.*, 2011)
- Developing a Heaviside's click detector from “porpoise setting” in PAMGUARD



Dusky dolphins:

- < 20 whistles in 70+ hours of recordings
- Stereotyped burst pulses and broadband clicks within 30 – 130 kHz (Au and Würsig 2004; Vaughn-Hirshorn *et al.* 2012)

Both species currently listed as ‘Data Deficient’ by the IUCN

Don't be a stranger!

