Dataset name: **Top predator observations**

|  |  |
| --- | --- |
| Parameters: | * **Top predator taxonomy**
* **Top predator abundances**
 |

PROJECT TITLE: **MOBYDICK**

Oceanographic cruise: **MOBYDICK**

Start date: **18/02/2018**

End date: **27/03/2018**

Project manager: **Bernard Quéguiner** bernard.queguiner@mio.osupytheas.fr

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 Geographic information: **Indian sector of the Southern Ocean**

 Latitude: **20°S – 52.5°S**

 Longitude: **55°E – 74.5°E**

Parameter supervisor: **Cédric Cotté**

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# OPERATIONS

## Sampling

Countings and identifications were made through visual observations (naked eyes and binoculars) of top predators.

## List of stations sampled

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Station ID** | **M1** | **M2** | **M3** | **M4** |
| **Number of 10 min counts** | 3 | 16 | 13 | 25 |

Operation code : *at-sea observations*

# INSTRUMENTS

Instrument Type: **Binoculars**

Manufacturer: **Kite**

Model: **IBIS**

Instrument Features / Calibration: **N/A**

Instrument Type: **Reticule binoculars**

Manufacturer: **Kite**

Model: **Commander XP**

Instrument Features / Calibration: **N/A**

# DESCRIPTION of PARAMETERS

## Sampling details

Observations were made with binoculars (10 x 42) and reticule binoculars (7 x 50) to estimate sighting distances for marine mammals. Angles were measured using the compass from the bridge of the vessel. Line-transect sampling was made following the method of Tasker *et al.* (1984).

## Analytical procedure

Marine mammal and penguin densities will be estimated using distance sampling to account for detection probability (Buckland *et al.,* 2001), while seabird observations will be analysed following Péron *et al.* (2010). Seabird communities (i.e. species diversity) will be compared at the different stations.

## Units

* Top predator abundances Number of observations / km2

## Sensor precision

N/A

## Post-cruise data analysis/treatment required

N/A/

## Estimated Date of Delivery

Mai 2018

# BIBLIOGRAPHY

Buckland S.T., Anderson D.R., Burnham K. P., Laake J. L., Borchers D. L., 2001. *Introduction to distance sampling: estimating abundance of biological populations*. Oxford University Press, Oxford, UK, 432 pp.

Péron C., Authier M., Barbraud C., Delord K., Besson D., Weimerskirch H., 2010. Interdecadal changes in at-sea distribution and abundance of subantarctic seabirds along a latitudinal gradient in the Southern Indian Ocean. *Global Change Biology*, **16**(7), 1895–1909.

Tasker M.L., Hope Jones P., Dixon T., Blake B. F., 1984. Counting seabirds at sea from ships : a review of methods employed and a suggestion for a standardized approach. *The Auk*, **101**, 567–577