Dataset name: **Acoustic densities**

PROJECT TITLE: **MOBYDICK**

Oceanographic cruise: **MOBYDICK incl. transit La Réunion – Study area**

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

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

Project manager: **Bernard Quéguiner** [bernard.queguiner@mio.osupytheas.fr](mailto:bernard.queguiner@mio.osupytheas.fr)

Address: **Mediterranean Institute of Oceanolography**

**Institut Pytheas - Observatoire des Sciences de l'Univers**

**Bâtiment OCEANOMED, Campus de Luminy, case 901**

**F-13288 Marseille Cedex 09, France**

Chief scientist: **Ingrid Obernosterer** [ingrid.obernosterer@obs-banyuls.fr](mailto:ingrid.obernosterer@obs-banyuls.fr)

Address: **Laboratoire d’Océanographie Microbienne**

**Observatoire Océanologique de Banyuls sur mer**

**66650 Banyuls sur mer, France**

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

Latitude: **20°S – 52.5°S**

Longitude: **55°E – 74.5°E**

Parameter supervisor: **Cédric Cotté**

LOCEAN

Institut Pierre Simon Laplace.

Boîte 100 - 4, place Jussieu

75252 Paris Cedex 05, France

+33 (0)1 44 27 70 78

[Cedric.Cotte@locean-ipsl.upmc.fr](mailto:Cedric.Cotte@locean-ipsl.upmc.fr)

Dataset contacts: **Anna Conchon**

CLS

11 rue Hermès

Parc Technologique du Canal

31520 Ramonville Saint-Agne, France

+33 (0)5 61 39 47 00

[aconchon@cls.fr](mailto:aconchon@cls.fr)

**Jérémie Habasque**

LEMAR/IUEM

Rue Dumont d'Urville

29280 Plouzané, France

+33 (0)2 98 49 86 44

[jeremie.habasque@ird.fr](mailto:jeremie.habasque@ird.fr)

# OPERATIONS

## Sampling device(s)

Echosounder.

## List of stations sampled

Continuously acquired data for the entire cruise duration.

# INSTRUMENTS

Instrument Type: **Broadband echosounder**

Manufacturer: **Simrad**

Model: **EK80**

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

# DESCRIPTION of PARAMETERS

## Sampling details

Acoustic backscatter of macrozooplankton and micronekton: Five sampling frequencies: 18 – 38 – 70 – 120 – 200 kHz.

## Analytical procedure

Analyses of multifrequencies signal (following Behagle *et al.*, 2017).

## Units

* Acoustic density: NASC (Nautical Area Scattering Coefficient)

## Sensor precision

'Continuous' data acquisition at a 3 seconds time resolution (ping interval).

## Post-cruise data analysis/treatment required

See § 3.2 above.

## Estimated Date of Delivery

October 2018

# BIBLIOGRAPHY

Béhagle N., Cotté C., Lebourges–Dhaussy A., Roudaut G., Duhamel G., Brehmer P., Josse E., Cherel Y., 2017. Acoustic distribution of discriminated micronektonic organisms from a bi-frequency processing: The case study of eastern Kerguelen oceanic waters. *Progress in Oceanography*, **156**, 276-289.   
<https://doi.org/10.1016/j.pocean.2017.06.004>