

Bynoe Harbour Habitat Mapping Survey 2016: High resolution backscatter grid

Bynoe Harbour Habitat Mapping Survey 2016: High resolution backscatter grid

Version

1.0.0

Program

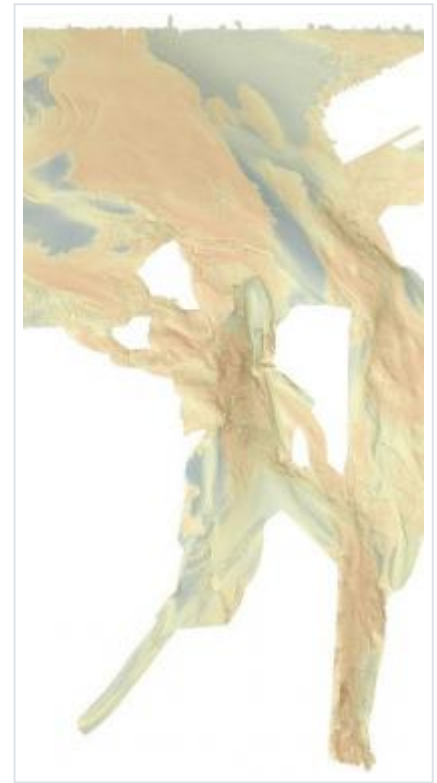
Marine

Resource type

Baseline

Published Date

28/01/2021



View the [original metadata page](#) for the most up-to-date information on this product.

Basics

Background

This resource contains multibeam backscatter data for Bynoe Harbour collected by Geoscience Australia (GA), the Australian Institute of Marine Science (AIMS) and the Northern Territory Government (Department of Environment and Natural Resources) during the period between 3 and 27 May 2016 on the RV Solander (survey SOL6187/GA0351). T

The intent of this four year (2014-2018) program is to improve knowledge of the marine environments in the Darwin and Bynoe Harbour regions by collating and collecting baseline data that enable the creation of thematic habitat maps that underpin marine resource management decisions.

The specific objectives of the survey were to:

- Obtain high resolution geophysical (bathymetry) data for Bynoe Harbour;
- Characterise substrates (acoustic backscatter properties, grainsize, sediment chemistry) for Bynoe Harbour; and
- Collect tidal data for the survey area.

Data acquired during the survey included: multibeam sonar bathymetry and acoustic backscatter; physical samples of seabed sediments, underwater photography and video of grab sample locations and oceanographic information including

tidal data and sound velocity profiles.

This dataset comprises multibeam backscatter data.

What this product offers

The intent of this four year (2014-2018) program is to improve knowledge of the marine environments in the Darwin and Bynoe Harbour regions by collating and collecting baseline data that enable the creation of thematic habitat maps that underpin marine resource management decisions.

Related products

- [Bynoe Harbour Habitat Mapping Bathymetry Survey](#)
- [Bynoe Harbour Habitat Mapping Survey 2016: Chlorins and porosity data for seabed sediments](#)
- [Bynoe Harbour Habitat Mapping Survey 2016: Grain size data for seabed sediments](#)
- [Bynoe Harbour Habitat Mapping Survey 2016: High resolution bathymetry grid](#)

Publications

A detailed account of the survey is provided in:

Siwabessy, P.J.W., Smit, N., Atkinson, I., Dando, N., Harries, S., Howard, F.J.F., Li, J., Nicholas W.A., Picard, K., Radke, L.C., Tran, M., Williams, D. and Whiteway, T. 2016. Bynoe Harbour Marine Survey 2016: GA4452/SOL6432 – Post-survey report. Record 2017/04. Geoscience Australia, Canberra. <http://dx.doi.org/10.11636/Record.2017.004>.

Access

Data access

| | |
|--------------------------------|--------------|
| eCat record | 110749 |
| CMI RESTful node ID | 620 |
| Security classification | Unclassified |
| Update frequency | asNeeded |

Details

Technical information

The AIMS Cruise Leaders were Mr. David Williams (leg 1) and Mr. Simon Harries (leg 2), the NTGov Chief Investigator onboard was Dr. Neil Smit, and the GA Survey Leaders were Dr. Justy Siwabessy (leg 1) and Mr. Floyd Howard (leg 2).

This dataset was acquired using Kongsberg's SIS acquisition software and processed onboard using CMST-GA MB Process v15.04.04.0 software by Justy Siwabessy, Kim Picard, Floyd Howard, Neil Smit, Dave Williams, Nick Dando, Ian Atkinson and Simon Harries.

Metadata: The multibeam bathymetry was acquired by the following survey:

- Survey Name: Bynoe Harbour Habitat Mapping Survey 2016 (GA-4452/SOL6432)
- Vessel Name: RV Solander
- Institutions: Geoscience Australia, AIMS, NTGov
- Country: Australia
- Operator: AIMS
- Multibeam system: Kongsberg EM2040C (dual)
- Year of installation: 2014
- Nominal sonar frequency: 300 kHz
- Number of beams: 800 beams
- Beamwidth across track: 1.3 degrees
- Beamwidth along track: 1.3 degrees
- Pulse length: variable
- Selectable depth range: 5 m - 60 m
- Vessel speed: 7 - 10 knots
- Start Date: 03/05/2016
- End Date: 27/05/2016
- Start Port: Darwin
- End Port: Darwin
- Processing software: CMST-GA MB Process v15.04.04.0
- Grid resolution: 1 m
- Number of grids: 1
- Total surface coverage: 684 km²
- Bathymetry Vertical Datum: MSL
- Horizontal Datum: WGS84 UTM-52S
- Use Limitation: This dataset is not to be used for navigational purposes.

This dataset is published with the permissio

References

- Siwabessy, P.J.W., Smit, N., Atkinson, I., Dando, N., Harries, S., Howard, F.J.F., Li, J., Nicholas W.A., Picard, K., Radke, L.C., Tran, M., Williams, D. and Whiteway, T. 2016. Bynoe Harbour Marine Survey 2016: GA4452/SOL6432 – Post-survey report. Record 2017/04. Geoscience Australia, Canberra. <http://dx.doi.org/10.11636/Record.2017.004>.

Processing

Lineage

The Bynoe Harbour Marine Survey 2016, GA-4452/SOL6432 was acquired by Geoscience Australia (GA), the Australian Institute of Marine Science (AIMS) and Department of Environment and Natural Resources (Northern Territory Government) onboard the RV Solander between 3 and 27 May 2016.

The AIMS Cruise Leaders were Mr. David Williams (leg 1) and Mr. Simon Harries (leg 2), the NTGov Chief Investigator onboard was Dr. Neil Smit, and the GA Survey Leaders were Dr. Justy Siwabessy (leg 1) and Mr. Floyd Howard (leg 2).

This dataset was acquired using Kongsberg's SIS acquisition software and processed onboard using CMST-GA MB Process v15.04.04.0 software by Justy Siwabessy, Kim Picard, Floyd Howard, Neil Smit, Dave Williams, Nick Dando, Ian Atkinson and Simon Harries.

Metadata: The multibeam bathymetry was acquired by the following survey:

- Survey Name: Bynoe Harbour Habitat Mapping Survey 2016 (GA-4452/SOL6432)
- Vessel Name: RV Solander
- Institutions: Geoscience Australia, AIMS, NTGov
- Country: Australia
- Operator: AIMS
- Multibeam system: Kongsberg EM2040C (dual)
- Year of installation: 2014
- Nominal sonar frequency: 300 kHz
- Number of beams: 800 beams
- Beamwidth across track: 1.3 degrees
- Beamwidth along track: 1.3 degrees
- Pulse length: variable
- Selectable depth range: 5 m - 60 m
- Vessel speed: 7 - 10 knots
- Start Date: 03/05/2016
- End Date: 27/05/2016
- Start Port: Darwin
- End Port: Darwin
- Processing software: CMST-GA MB Process v15.04.04.0
- Grid resolution: 1 m
- Number of grids: 1
- Total surface coverage: 684 km²
- Bathymetry Vertical Datum: MSL
- Horizontal Datum: WGS84 UTM-52S
- Use Limitation: This dataset is not to be used for navigational purposes.

This dataset is published with the permission of the CEO, Geoscience Australia

Schema / spatial extent

Bynoe Harbour Habitat Mapping Survey

| | |
|------------------------------------|---|
| Update frequency | asNeeded |
| Temporal extent | 2016-05-03 06:16:04 – 2016-05-17 23:16:04 |
| Coordinate reference system | |

Media

Credits

Owner

Commonwealth of Australia (Geoscience Australia)

License

CC BY Attribution 4.0 International License

Rights statement

© Commonwealth of Australia (Geoscience Australia) 2019. [Creative Commons Attribution 4.0 International License](#).

Acknowledgments

This project was made possible through offset funds provided by INPEX-led Ichthys LNG Project to Northern Territory Government Department of Environment and Natural Resources, and co-investment from Geoscience Australia and Australian Institute of Marine Science.