

Metadata associated with the MOCNESS tows taken in the Red Sea near Economic City (ECDEEP) on the R/V Thuwal cruise during January 2014 (Red Sea Krill project)

Website: <https://www.bco-dmo.org/dataset/625883>

Version: 2015-10-28

Project

» [Red Sea Krill](#) (Red Sea Krill)

Contributors	Affiliation	Role
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Dataset Description

Metadata associated with the MOCNESS tows taken in the Red Sea near Economic City (ECDEEP), January 2014 including net opening and closing depth, volume filtered per net.

Methods & Sampling

Three day trips were made aboard the R/V Thuwal to a location referred to as the Economic City Deep or ECDEEP: a ~700 m deep basin located north of KAUST at 22.5° N, 39.03° E). A 1/4-m MOCNESS (Multiple Opening/Closing Net and Environmental Sensing System; Wiebe et al., 1985) with 200 µm mesh nets was used to sample the zooplankton.

Field sampling: The MOCNESS was obliquely towed four times from the stern A-frame using 11.43 mm conducting cable to 600 m depth with a ship speed nominally of 2 kts (Fig. 2; Table 1). Two MOCNESS tows were taken during daytime, one each on 7 and 8 January 2014, and two night tows were taken on 12 January 2014. The first day tow (m-25-001) was equipped with 5 nets that sampled 600-400, 400-200, 200-100, and 100-0 m. The second day tow (m-25-002) and the two night tows (m-25-003, m-25-004) each had six nets that sampled 600-400, 400-200, 200-100, 100-50, and 50-0 m. The first tow was done without having GPS data input to the MOCNESS acquisition program, so positions from the bridge were obtained for the tow start and end, and at each opening of a net. GPS positions were logged for the other three tows. The MOCNESS system was equipped with the standard SeaBird temperature and conductivity probes. Volume of water filtered by each net was based on the net frame angle and flowmeter counts using equation 10b in Wiebe et al., 1985.

Data Processing Description

BCO-DMO Processing:

- added conventional header with dataset name, PI name, version date

- renamed parameters to BCO-DMO standard
- added columns: time_start_local, time_end_local, lat_start, lon_start, lat_end, lon_end

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Data Files

File
moc_meta.csv (Comma Separated Values (.csv), 2.20 KB) MD5:e17e19438a431b865bd90a717b01db64 Primary data file for dataset ID 625883

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Parameters

Parameter	Description	Units
cruise_id	cruise identification	unitless
station	sequential station	unitless
tow	MOCNESS tow number	unitless
year	year	yyyy
month_local	local month	mm
day_local	local day	dd
yrday_local_start	local year-day at start tow	unitless
yrday_local_end	local year-day at end tow	unitless
lat_start	latitude at start of tow; north is positive	decimal degrees
lat_end	latitude at end of tow; north is positive	decimal degrees
lon_start	longitude at end of tow; east is positive	decimal degrees
lon_end	longitude at end of tow; east is positive	decimal degrees
net	net number	unitless
depth_open	depth at which net was opened	meters
depth_close	depth at which net was closed	meters
vol_filt	volume of water filtered by net	cubic meter

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Instruments

Dataset-specific Instrument Name	MOCNESS-.25 m ²
Generic Instrument Name	MOCNESS.25
Dataset-specific Description	This MOCNESS sampled with either 5 or 6 nets, 200 micron mesh.
Generic Instrument Description	The Multiple Opening/Closing Net and Environmental Sensing System or MOCNESS is a family of net systems based on the Tucker Trawl principle. The MOCNESS-1/4 carries nine 1/4-m ² nets usually of 64 micrometer mesh and is used to sample the larger micro-zooplankton.

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Deployments

Thuwal-2014-01

Website	https://www.bco-dmo.org/deployment/620087
Platform	R/V Thuwal
Start Date	2014-01-07
End Date	2015-01-12
Description	Three day trips to sample krill at ECDEEP station near Economic City, Saudi Arabia, north of KAUST.

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Project Information

Red Sea Krill (Red Sea Krill)

Coverage: Red Sea

The krill population at station ECDEEP was characterized via MOCNESS sampling and CTD casts.

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Funding

Funding Source	Award
King Abdullah University of Science and Technology (KAUST)	KAUST-Kaartvedt-2014

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