D5.6 Data Management Plan v1

WP5 – Project Management & Coordination

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Creator	Juan Alonso (ATOS ES)
Description	This document is the first version of the Data Management Plan whose purpose is to provide an analysis of the main elements of the data management policy that will be used by the project. The Data Management Plan will evolve during the lifespan of the project with more elaborated versions
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Statement for open documents

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EO4wildlife Project Overview

EO4wildlife main objective is to bring large number of multidisciplinary scientists such as biologists, ecologists and ornithologists around the world to collaborate closely together while using European Sentinel Copernicus Earth Observation more heavily and efficiently.

In order to reach such important objective, an open service platform and interoperable toolbox will be designed and developed. It will offer high level services that can be accessed by scientists to perform their respective research. The platform front end will be easy-to-use, access and offer dedicated services that will enable them process their geospatial environmental stimulations using Sentinel Earth Observation data that are intelligently combined with other observation sources.

Specifically, the EO4wildlife platform will enable the integration of Sentinel data, ARGOS archive databases and real time thematic databank portals, including Wildlifetracking.org, Seabirdtracking.org, and other Earth Observation and MetOcean databases; locally or remotely, and simultaneously.

EO4wildlife research specialises in the intelligent management big data, processing, advanced analytics and a Knowledge Base for wildlife migratory behaviour and trends forecast. The research will lead to the development of web-enabled open services using OGC standards for sensor observation and measurements and data processing of heterogeneous geospatial observation data and uncertainties.

EO4wildlife will design, implement and validate various scenarios based on real operational use case requirements in the field of wildlife migrations, habitats and behaviour. These include:

- Management tools for regulatory authorities to achieve real-time advanced decision-making on the protection of protect seabird species;
- Enhancing scientific knowledge of pelagic fish migrations routes, reproduction and feeding behaviours for better species management; and
- Setting up tools to assist marine protected areas and management.

Abbreviations and Glossary

A common glossary of terms for all EO4wildlife deliverables, as well as a list of abbreviations, can be found in the public document “EO4wildlife Glossary” available at EO4wildlife.eu.

Executive Summary

The purpose of the Data Management Plan (DMP) is to provide an analysis of the main elements of the data management policy that will be used by the consortium with regard to all the datasets that will be generated by the project.

The first version of the DMP (D5.6 Data Management Plan v1) is in compliance with the template provided by the European Commission and it is included within the WP5 Project Management and coordination. The DMP is not a fixed document, but evolves during the lifespan of the project. More elaborated versions will be delivered at later stages of the project to fine-tune it to the data generated and the uses identified by the consortium during the project lifetime.

In order to give a general overview of all datasets to be handled in the project, the data management strategy includes the classification of data collected, processed and generated in the project. The data are divided into three types Earth-observation data, Argos data and Observation data.

The EO4wildlife Data Management plan addresses the points below for each dataset:

- Data set reference and name
- Data set description
- Standards and metadata
- Data Sharing
- Archiving and preservation

1 Data Management strategy

1.1 Introduction

Although the detail for all dataset is included in chapter 2 "EO4wildlife Data", this section shows the general strategy for Data Management. First of all is needed to classify the kind of data to be collected or generated in the project. In addition, the strategy includes the standards and metadata to be used, data sharing information (exploitation and re-use of data) and finally details of archiving and preservation.

Detailed information for each subsection is showed in the OpenAire[1] website.

1.2 Types of data

The EO4wildlife project will manage mainly three types of data, Earth observation data, Argos data and In-situ observation data.

Earth observation data are a compilation of physical parameters that are used in the EO4wildlife scenarios. The project will also use geo locations data which will be classified as Argos data. Finally, the in-situ observation data is intended to include tracking data or aerial observations data between others.

The types of data that will be collected in the EO4wildlife project are described in details below.

1.2.1 Earth-observation data

Earth observation data are a compilation of physical parameters (such as salinity, sea surface temperature or sea surface height). Some parameters are directly deduced from single satellite observations, some others are deduced from multi-missions satellite observations and some are derived from models (mainly meteorological parameters). The project intends to use as much as possible parameters directly or indirectly measured by the Sentinel missions along the project lifetime.

The next table lists and describes the earth observation data used in the project EO4wildlife for the wildlife scenarios. The table shows not only the physical parameters but also additional information such as time coverage, satellite, frequency or resolution between others. This table may be completed in future versions with additional Sentinel data.

Parameter	Product name	Satellite(s)	Date-start	Date-end	Granularity	Frequency	Resolution
Sea surface height	Absolute Dynamic Topography (aka Sea Surface Height above geoid)	multi (soon Sentinel-3)	01/1993	09/2015	daily	quarterly	0.25°x0.25°
Sea surface height	Absolute Dynamic Topography (aka Sea Surface Height above geoid)	multi (soon Sentinel-3)	04/2014	-	daily	daily	0.25°x0.25°
bathymetry	Bathymetry ETOPO1	N/A (some altimetry in it)	-	-	-	-	1'
Chlorophyll Concentration	Global Ocean, Ocean Colour Chlorophyll (Optimal Interpolation)	MODIS/AQUA, VIIRS/Suomi-NPP (soon Sentinel-3)	01/2015	-	daily	daily	4 km

[1] https://www.openaire.eu/opendatapilot

Parameter	Product name	Satellite(s)	Date-start	Date-end	Granularity	Frequency	Resolution
Chlorophyll Concentration	Global Ocean, Ocean Colour Chlorophyll (Optimal Interpolation)	MODIS/AQUA, VIIRS/Suomi-NPP (soon Sentinel-3)	09/1997	12/2014	daily	annual	4 km
ocean biology	Net Primary Production	derived					
ocean currents	"Filaments" (convergence/divergence)	derived	01/1993	09/2015	3-daily	annual	0.04°
ocean currents	currents (geostrophic) from Sea Level Anomalies	derived multi (soon Sentinel-3)	01/1993	09/2015	daily	quarterly	0.25°x0.25°
ocean currents	currents (geostrophic) from Sea Level Anomalies	derived multi (soon Sentinel-3)	04/2014	-	daily	daily	0.25°x0.25°
ocean currents	currents (geostrophic) from Absolute Dynamic Topography	derived multi (soon Sentinel-3)	01/1993	09/2015	daily	quarterly	0.25°x0.25°
ocean currents	currents (geostrophic) from Absolute Dynamic Topography	multi (soon Sentinel-3)	04/2014	-	daily	daily	0.25°x0.25°
Ocean Temperature	Global Ocean OSTIA Sea Surface Temperature and Sea Ice Analysis	multi techniques	01/2007	-	daily	daily	0.05°
Ocean Temperature	Global Ocean OSTIA Sea Surface Temperature and Sea Ice Reprocessed (1985-2007)	multi techniques	01/1985	12/2007	daily		0.05°
ocean winds	Global Ocean Wind L4 Near real Time 6 hourly Observations	multi	11/2012	-	6-hourly	daily	0.25°
Sea surface height	Sea Level Anomalies (aka Sea Surface Height above a mean sea surface)	multi	03/2014	-	daily		0.25°x0.25°
Sea surface height	Sea Level Anomalies (aka Sea Surface Height above a mean sea surface)	multi	01/1993	09/2015	daily	~4 months	0.25°x0.25°
winds	10 metre U wind component+10 metre V wind component+Mean sea level pressure	ECMWF ERA-interim model	01/1979	02/2016	daily	2 months	
winds	U wind component at model levels+V wind component at model levels	ECMWF ERA-interim model	01/1979	02/2016	daily	2 months	

Table 1: Earth Observation data

1.2.2 Argos data

Argos system is a satellite based system of data collection and localization. Any mobile equipped with an Argos transmitter on-board a platform is able to send signals that allows calculation of its position, from pole to pole. If the platform is equipped with a GPS receiver, a GPS position can be transmitted as well. Additional sensor data recorded by the platform can be transmitted via Argos satellites.

Light level being one of the sensor data used to geo locate pelagic species that are not surfacing long enough to transmit any data in real time.

The project will use geo locations data (latitude/longitude) based on 2 methods:

- Argos Doppler/GPS location
- Light based location

Data files contain at minima:

- Argos program number
- Argos platform number
- Number of sensors
- Satellite Id
- Location class (quality flag)
- Date (yyyy.mm.dd)
- Time (hh.mm.ss)
- Latitude
- Longitude
- Altitude
- Nb of identical messages received by the satellite(s)
- Frequency
- Sensor values

1.2.3 In situ observation data

This section will be completed in future versions of the Data Management Plan.

1.3 Standards and metadata

1.3.1 Earth-observation data

The data are in NetCDF, COARDS-CF convention. Native metadata include the production centre, distribution centre. Description of metadata per parameter is available in chapter 2 “EO4wildlife Data”.

1.3.2 Argos data

Argos data files format are non-standard and proprietary formats for historical reasons. A specific task of the project will address interoperability and will end with some standardization of Argos data.

This paragraph will be updated during the project.

1.3.3 In situ observation data

This section will be completed in future versions of the Data Management Plan.

1.4 Exploitation and re-use of data

1.4.1 Earth-observation data

Most of the EO data collected and manipulated in the project are Open Access, available under subscription and free of charge. Details are given in chapter 2 “EO4wildlife Data” for each dataset.

1.4.2 Argos data

CLS has been appointed by Argos Operational Committee for operating Argos satellite system of data collection and localization, for data distribution to end users and for data archive. End users are the sole proprietary of the Argos data. This is contracted through a System Use Agreement between end users and Argos Operational Committee.

End users can individually agree to make their data available to third parties under conditions. SeabirdTracking.org and Seaturtle.org are managing such rights for Argos end users.

End users or representatives of end users have authorized EO4wildlife project (partners) to access and manipulate Argos data during the project life time. After the project lifetime, end users will be able to manipulate their own Argos data only through the platform.

1.4.3 In situ observation data

This section will be completed in future versions of the Data Management Plan.

1.5 Archiving and preservation

1.5.1 Earth-observation data

For most of EO data used in the project, archiving and preservation are under Space Agencies, European Commission, providers and partner's responsibility. Details per dataset are given in chapter 2 "EO4wildlife Data".

1.5.2 Argos data

CLS, unique operator of the Argos system on behalf the space agency's members of the Argos Committee of Operation, is archiving and preserving Argos data and metadata for the users.

1.5.3 In situ observation data

This section will be completed in future versions of the Data Management Plan.

2 EO4wildlife Data

Following the DMP template that is included in Annex I, this section describes the datasets for each type of data. In addition, each product (understanding product as a dataset) available in the EO4wildlife system will have a complete description whose details are showed in Annex II. Additional datasets section is also included at the end of this section.

2.1 Earth Observation Data

2.1.1 Data set Delayed Time Absolute Dynamic Topography

2.1.1.1 Data set reference and name

Delayed-Time Absolute Dynamic Topography (aka Sea Surface Height above geoid)

2.1.1.2 Data set description

Distribution: Aviso/Altimetry

parameter	Sea surface height
product name	Absolute Dynamic Topography (aka Sea Surface Height above geoid)
coverage	Global: 72S - 72N, 180W - 180E
satellite	multi satellites (soon including Sentinel-3)
date-start	01/01/1993
date-end	11/09/2015 (as of 31/05/2016)
granularity	daily
frequency	quarterly
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/sea-surface-height-products/global/madt-h-uv.html

2.1.1.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.1.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.1.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.2 Data set Near Real Time Absolute Dynamic Topography

2.1.2.1 Data set reference and name

Near Real-Time Absolute Dynamic Topography (aka Sea Surface Height above geoid)

2.1.2.2 Data set description

Distribution: Aviso/Altimetry

parameter	Sea surface height
product name	Absolute Dynamic Topography (aka Sea Surface Height above geoid)
Coverage	Global: 72S - 72N, 180W - 180E
Satellite	multi satellites (soon including Sentinel-3)
date-start	08/04/2014
date-end	today
granularity	daily
frequency	quarterly
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/sea-surface-height-products/global/madt-h-uv.html

2.1.2.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.2.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.2.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.3 Data set ETOPO1 Bathymetry

2.1.3.1 Data set reference and name

Bathymetry ETOPO1

2.1.3.2 Data set description

Distribution: NOAA

parameter	Bathymetry
product name	Bathymetry ETOPO1
coverage	Global: 90S - 90N, 180W - 180E
satellite	N/A (some altimetry in it)
date-start	N/A
date-end	N/A
granularity	N/A
frequency	N/A
resolution	1'
type	grid
catalogue/URL	https://www.ngdc.noaa.gov/mgg/global/global.html

2.1.3.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.3.4 Data Sharing

Data free of charge, distributed by NOAA

2.1.3.5 Archiving and preservation

Data are provided by NOAA. The archiving and preservation are their responsibility and that of their partners.

2.1.4 Data set Global Ocean, Ocean Colour Chlorophyll (OI)

2.1.4.1 Data set reference and name

Global Ocean, Ocean Colour Chlorophyll (Optimal Interpolation)

2.1.4.2 Data set description

Distribution: CMEMS

parameter	Chlorophyll Concentration
product name	Global Ocean, Ocean Colour Chlorophyll (Optimal Interpolation)
coverage	Global: 90S - 90N, 180W - 180E
satellite	MODIS/AQUA, VIIRS/Suomi-NPP (soon Sentinel-3)
date-start	01/01/2015
date-end	today
granularity	daily
frequency	daily
resolution	4 km
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=OCEANCOLOUR_GLO_CHL_L4_NRT_OBSERVATIONS_009_033

2.1.4.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.4.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.4.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.5 Data set Historical Global Ocean, Ocean Colour Chlorophyll (OI)

2.1.5.1 Data set reference and name

Historical Global Ocean, Ocean Colour Chlorophyll (Optimal Interpolation)

2.1.5.2 Data set description

Distribution: CMEMS

parameter	Chlorophyll Concentration
product name	Global Ocean, Ocean Colour Chlorophyll (Optimal Interpolation)
coverage	Global: 90S - 90N, 180W - 180E
satellite	MODIS/AQUA, VIIRS/Suomi-NPP (soon Sentinel-3)
date-start	04/09/1997
date-end	31/12/2014 (as of 31/05/2016)
granularity	daily
frequency	annual
resolution	4 km
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=OCEANCOLOUR_GLO_CHL_L4_REP_OBSERVATIONS_009_082

2.1.5.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.5.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.5.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.6 Data set Finite Size Lyapunov Exponents

2.1.6.1 Data set reference and name

FSLE - Maps of Finite Size Lyapunov Exponents and Orientations of the associated eigenvectors

2.1.6.2 Data set description

Distribution: Aviso

parameter	ocean currents
product name	FSLE - Maps of Finite Size Lyapunov Exponents and Orientations of the associated eigenvectors ("Filaments")

coverage	Global: 72S - 72N, 180W - 180E
satellite	derived from multi-mission altimetry
date-start	01/01/1993
date-end	07/09/2015 (as of 31/05/2016)
granularity	3-daily
frequency	annual
resolution	0.04°
type	Grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/value-added-products/fsle-finite-size-lyapunov-exponents.html

2.1.6.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.6.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.6.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.7 Data set DT currents (geostrophic) from Sea Level Anomalies

2.1.7.1 Data set reference and name

Delayed-Time currents (geostrophic) from Sea Level Anomalies

2.1.7.2 Data set description

Distribution: Aviso

parameter	ocean currents
product name	currents (geostrophic) from Sea Level Anomalies
coverage	Global: 72S - 72N, 180W - 180E
satellite	derived multi (soon Sentinel-3)
date-start	01/01/1993
date-end	11/09/2015 (as of 31/05/2016)
granularity	daily
frequency	quarterly
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/sea-surface-height-products/global/msla-uv.html

2.1.7.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.7.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.7.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.8 Data set NRT currents (geostrophic) from Sea Level Anomalies

2.1.8.1 Data set reference and name

Near-Real-Time currents (geostrophic) from Sea Level Anomalies

2.1.8.2 Data set description

Distribution: Aviso

parameter	ocean currents
product name	currents (geostrophic) from Sea Level Anomalies
coverage	Global: 72S - 72N, 180W - 180E
satellite	derived multi (soon Sentinel-3)
date-start	08/04/2014
date-end	today
granularity	daily
frequency	daily
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/sea-surface-height-products/global/msla-uv.html

2.1.8.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.8.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.8.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.9 Data set DT currents (geostrophic) from Absolute Dynamic Topography

2.1.9.1 Data set reference and name

Delayed-Time currents (geostrophic) from Absolute Dynamic Topography

2.1.9.2 Data set description

Distribution: Aviso

parameter	ocean currents
product name	currents (geostrophic) from Absolute Dynamic Topography
coverage	Global: 72S - 72N, 180W - 180E
satellite	derived multi (soon Sentinel-3)
date-start	01/01/1993
date-end	11/09/2015 (as of 31/05/2016)
granularity	daily
frequency	quarterly
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/sea-surface-height-products/global/madt-h-uv.html

2.1.9.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.9.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.9.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.10 Data set NRT currents (geostrophic) from Absolute Dynamic Topography

2.1.10.1 Data set reference and name

Near-Real-Time currents (geostrophic) from Absolute Dynamic Topography

2.1.10.2 Data set description

Distribution: Aviso

parameter	ocean currents
product name	currents (geostrophic) from Absolute Dynamic Topography
coverage	Global: 72S - 72N, 180W - 180E

satellite	multi (soon Sentinel-3)
date-start	08/04/2014
date-end	today
granularity	daily
frequency	daily
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://www.aviso.altimetry.fr/en/data/products/sea-surface-height-products/global/madt-h-uv.html

2.1.10.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.10.4 Data Sharing

Aviso data are free of charge, and can be retrieved upon subscription

2.1.10.5 Archiving and preservation

Data are provided by CNES. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.11 Data set Global Ocean OSTIA Sea Surface Temperature and Sea Ice Analysis

2.1.11.1 Data set reference and name

Global Ocean OSTIA Sea Surface Temperature and Sea Ice Analysis

2.1.11.2 Data set description

Distribution: CMEMS

parameter	Ocean Temperature
product name	Global Ocean OSTIA Sea Surface Temperature and Sea Ice Analysis
coverage	Global: 90S - 90N, 180W - 180E
satellite	multi techniques
date-start	01/01/2007
date-end	today
granularity	daily
frequency	daily
resolution	0.05°
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=SST_GLO_SST_L4_NRT_OBSERVATIONS_010_001

2.1.11.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.11.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.11.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.12 Data set Global Ocean OSTIA Sea Surface Temperature and Sea Ice Reprocessed (1985-2007)

2.1.12.1 Data set reference and name

Global Ocean OSTIA Sea Surface Temperature and Sea Ice Reprocessed (1985-2007)

2.1.12.2 Data set description

Distribution: CMEMS

parameter	Ocean Temperature
product name	Global Ocean OSTIA Sea Surface Temperature and Sea Ice Reprocessed (1985-2007)
coverage	Global: 90S - 90N, 180W - 180E
satellite	multi techniques
date-start	01/01/1985
date-end	31/12/2007 (as of 31/05/2016)
granularity	daily
frequency	
resolution	0.05°
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=SST_GLO_SST_L4_REP_OBSERVATIONS_010_011

2.1.12.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.12.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.12.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.13 Data set Global Ocean Wind L4 Near real Time 6 hourly Observations

2.1.13.1 Data set reference and name

Global Ocean Wind L4 Near real Time 6 hourly Observations

2.1.13.2 Data set description

Distribution: CMEMS

parameter	ocean winds
product name	Global Ocean Wind L4 Near real Time 6 hourly Observations
coverage	Global: 80S - 80N, 180W - 180E
satellite	multi
date-start	15/11/2012
date-end	today
granularity	6-hourly
frequency	daily
resolution	0.25°
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=WIND_GLO_WIND_L4_NRT_OBSERVATIONS_012_004

2.1.13.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.13.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.13.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.14 Data set NRT SLA (aka Sea Surface Height above a mean sea surface)

2.1.14.1 Data set reference and name

Near-Real Time Sea Level Anomalies (aka Sea Surface Height above a mean sea surface)

2.1.14.2 Data set description

Distribution: CMEMS

parameter	Sea surface height
product name	Sea Level Anomalies (aka Sea Surface Height above a mean sea surface)
coverage	Global: 72S - 72N, 180W - 180E

satellite	multi
date-start	24/03/2014
date-end	today
granularity	daily
frequency	daily
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=SEALEVEL_GLO_SLA_MAP_L4_NRT_OBSERVATIONS_008_026

2.1.14.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.14.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.14.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.15 Data set Reprocessed SLA (aka Sea Surface Height above a mean sea surface)

2.1.15.1 Data set reference and name

Reprocessed Sea Level Anomalies (aka Sea Surface Height above a mean sea surface)

2.1.15.2 Data set description

Distribution: CMEMS

parameter	Sea surface height
product name	Sea Level Anomalies (aka Sea Surface Height above a mean sea surface)
coverage	Global: 72S - 72N, 180W - 180E
satellite	multi
date-start	01/01/1993
date-end	11/09/2015 (as of 31/05/2016)
granularity	daily
frequency	~4 months
resolution	0.25°x0.25°
type	grid
catalogue/URL	http://marine.copernicus.eu/web/69-interactive-catalogue.php?option=com_csw&view=details&product_id=SEALEVEL_GLO_SLA_MAP_L4_REP_OBSERVATIONS_008_027

2.1.15.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.15.4 Data Sharing

CMEMS data are free of charge, and can be retrieved upon subscription

2.1.15.5 Archiving and preservation

Data are provided by CMEMS. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.16 Data set 10 m U wind component+10 mV wind component+Mean sea level pressure

2.1.16.1 Data set reference and name

10 metre U wind component+10 metre V wind component+Mean sea level pressure

2.1.16.2 Data set description

Distribution: ECMWF

parameter	winds
product name	10 metre U wind component+10 metre V wind component+Mean sea level pressure
coverage	Global: 90S - 90N, 180W - 180E
satellite	ECMWF ERA-interim model
date-start	01/01/1979
date-end	29/02/2016 (as of 31/05/2016)
granularity	daily
frequency	2 months
resolution	
type	grid
catalogue/URL	http://apps.ecmwf.int/datasets/data/interim-full-daily/levtype=sfc/

2.1.16.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.16.4 Data Sharing

ECMWF data are free of charge, and can be retrieved upon subscription

2.1.16.5 Archiving and preservation

Data are provided by ECMWF. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.17 Data set U wind component at model levels+V wind component at model levels

2.1.17.1 Data set reference and name

U wind component at model levels+V wind component at model levels

2.1.17.2 Data set description

Distribution: ECMWF

parameter	winds
product name	U wind component at model levels+V wind component at model levels
coverage	Global: 90S - 90N, 180W - 180E
satellite	ECMWF ERA-interim model
date-start	01/01/1979
date-end	29/02/2016 (as of 31/05/2016)
granularity	daily
frequency	2 months
resolution	
type	grid
catalogue/URL	http://apps.ecmwf.int/datasets/data/interim-full-daily/levtype=ml/

2.1.17.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.17.4 Data Sharing

ECMWF data are free of charge, and can be retrieved upon subscription

2.1.17.5 Archiving and preservation

Data are provided by ECMWF. The archiving and preservation are their responsibility and that of their partners and providers.

2.1.18 Data set Net Primary Production

2.1.18.1 Data set reference and name

Net Primary Production

2.1.18.2 Data set description

Distribution: CLS

parameter	ocean biology
product name	Net Primary Production
coverage	Global: 90S - 90N, 180W - 180E
satellite	derived

date-start
date-end
granularity
frequency
resolution
type
catalogue/URL

2.1.18.3 Standards and metadata

Data are in NetCDF, COARD-CF convention

2.1.18.4 Data Sharing

CLS proprietary data

2.1.18.5 Archiving and preservation

Data are provided by CLS. The archiving and preservation are their responsibility.

2.2 Argos Data

2.2.1 Data set Argos messages

2.2.1.1 Data set reference and name

Argos messages

2.2.1.2 Data set description

Distribution: CLS, Seaturtle.org, SeabirdTracking.org

- Files contain:
- Date (yyyy.mm.dd)
- Time (hh.mm.ss)
- Latitude
- Longitude
- Altitude
- Nb of identical messages received by the satellite(s)
- Frequency
- Sensor values

2.2.1.3 Standards and metadata

Argos messages files formats distributed by CLS are not standard files.

They contain 5 metadata:

- Argos program number
- Argos platform number
- Number of sensors
- Satellite Id
- Location class (quality flag)

2.2.1.4 Data Sharing

Argos data belongs to end users (owners). They will be collected and used with authorizations for EO4wildlife project during the project life time. After the project lifetime, end users could access themselves to the platform and manipulate their own data only.

2.2.1.5 Archiving and preservation

CLS has set up since many years a policy for archiving Argos data for end users. They can be requested through user office desk or through automated requests online.

End users usually archive their own data as well.

2.2.2 Data set Fish track

2.2.2.1 Data set reference and name

Light based geo location with best estimation of the track

2.2.2.2 Data set description

- Daily position of the animal based on light sensor measurement
- Daily best estimate of the animal position

2.2.2.3 Standards and metadata

XML, KML

2.2.2.4 Data Sharing

Light based geo locations and best estimation of the fish track belongs to the scientist who will upload input data and run the service. They could be used for scientific publications.

2.2.2.5 Archiving and preservation

To be determine.

2.3 In situ Observation Data

This section will be completed in future versions of the Data Management Plan.

2.4 Additional Datasets

The EU research projects can access to additional datasets[2]. The access to these datasets has to be validated by the European Commission.

EO4wildlife requested access to additional datasets and according to the Data Access Portfolio Document[3] (DAP) the project has access to additional datasets. However this access was capped (temporarily limited) until additional information requested by the EC is assessed.

Below it is included the additional information that was sent to the EC in February.

- Additional information 1: *about data providers in the Consortium: who and which data*

  CLS is Mission Performance Center for S1 (SAR) but not data provider.

  CLS is Mission Performance Center for S3/altimetry and will be data producer for EUMETSAT and CMEMS for altimetry data L3 and L4.

  CLS is as well connected to the PEPS platform that gives us access to all Sentinel data.

- Additional information 2: *More details in the request in terms of geographical areas of interest, timeframe, coverage*

  (This has been also included as comment in the updated request sent to the EC[4])

  Focus for 2016 is now on 2 geographical areas:

  - Small Islands in the Caribbean Islands, French EEZ and AGOA marine sanctuary (see next figure).

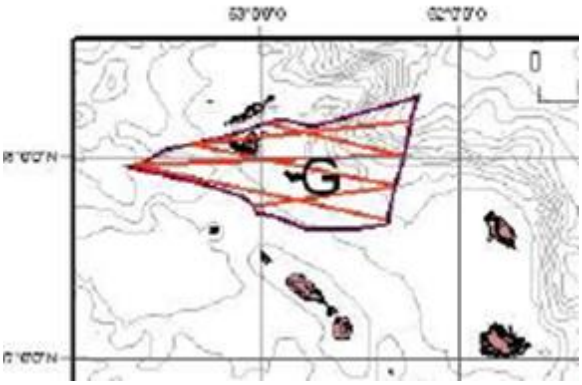

Figure 1: Geographical area 1 (requested information for additional datasets)

  - Iroise Marine Park (see next figure).

[2] Copernicus Contributing Missions ADDITIONAL datasets, distributed by ESA on behalf of the Commission
[3] Copernicus Space Component Data Access Portfolio: Data Warehouse 2014 – 2020, Issue Date 15/01/2016
[4] DWH 2 0 Copernicus Contributing Missions ADD request_EO4wildlife V2.xlsx

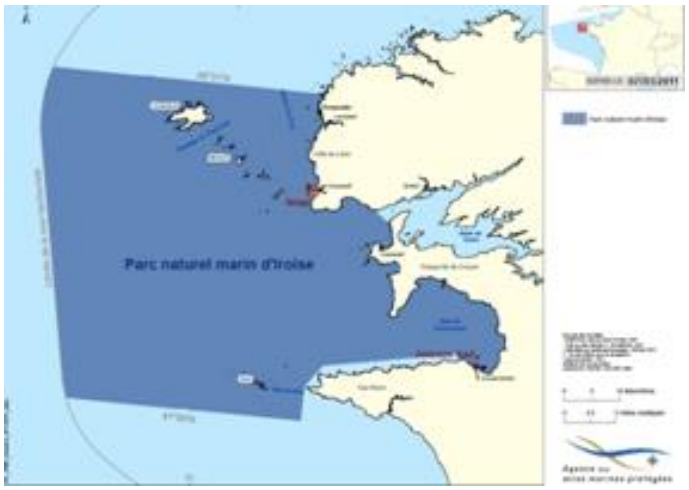

Figure 2: Geographical area 2 (requested information for additional datasets)

Timeframe for both areas are images in Summer time.

- Additional information 3: *Estimated timeframe when/which data are going to be used, especially in 2016*

  Data could be used from June/July 2016 with the first release of the platform if some dataset sample could be available for interface tasks in March/April.

Finally, the next figure shows the information available in the Data Access Portfolio Document regarding the EO4wildlife project.

Union Research Project -EO4wildlife

Dataset Title	Dataset ID	Quota (km2)
Archive_standard_Optical_HR2	D2_MG2_EO4W_009b	*
Archive_standard_Optical_VHR1	D2_MG2b_EO4W_011a	*
Archive_standard_SAR_HR1	D2_MG1_EO4W_013a	*

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* quota is capped until further information is provided to allow full assessment of the requests by EC

Figure 3: Additional datasets of EO4wildlife

Annex I. Data Management Plan template

In order to complete the information for datasets, the DMP template shows the description for each section (according to the Guidelines on Data Management in Horizon 2020[5]).

Data set reference and name

Identifier for the data set to be produced

Data set description

Description of the data that will be generated or collected, its origin (in case it is collected), nature and scale and to whom it could be useful, and whether it underpins a scientific publication. Information on the existence (or not) of similar data and the possibilities for integration and reuse

Standards and metadata

Reference to existing suitable standards of the discipline. If these do not exist, an outline on how and what metadata will be created

Data Sharing

Description of how data will be shared, including access procedures, embargo periods (if any), outlines of technical mechanisms for dissemination and necessary software and other tools for enabling re-use, and definition of whether access will be widely open or restricted to specific groups. Identification of the repository where data will be stored, if already existing and identified, indicating in particular the type of repository (institutional, standard repository for the discipline, etc.).

In case the dataset cannot be shared, the reasons for this should be mentioned (e.g. ethical, rules of personal data, intellectual property, commercial, privacy-related, security-related)

Archiving and preservation

Description of the procedures that will be put in place for long-term preservation of the data. Indication of how long the data should be preserved, what is its approximated end volume, what the associated costs are and how these are planned to be covered.

[5] Guidelines on Data Management in Horizon 2020 (Version 2.1; 15 February 2016)

Annex II. Product (dataset) description

This information has been detailed in the D1.1[6] Use case Scenarios document, with the Use Case "Describe Product".

This use case describes the way to make a product description available in the EO4wildlife system through a metadata model.

Trigger: The product provider activates this use case on demand through the EO4wildlife user interface.

Actor: product provider

Description:

- Product ID: this is the EO4wildlife unique identifier
- Product name: this is the product name the end user is familiar with
- Overview: brief description of the product
- Full description: full description of the product
- Product Provider Identifier: Organization and Name
- Category: a predefined list allows the user to selects 'Ocean, Atmosphere or Sea Ice'
- Download URL: access point to extract the product. The user can validate it by selection of a 'validate' button.
- Display URL: access point to display the product, when available. The user can validate it by selection of a 'validate' button.
- GetDescription: access point to get the dataset description, when available. The user can validate it by selection of a 'validate' button. If the response is successful, the system asks the product provider if he wants to import automatically the description: variables, time coverage, temporal resolution, geographical coverage, spatial resolution. If the product provider services do not expose such a service, the product provider has to complete manually the product description.
- Product level: L2, L3, L4 …
- The projection, when needed.
- The updating frequency and time if any
- GetSize: access point to get the estimated size of an extraction. If such an URL does not exist, the product provider enters a default typical size for an extraction.
- Credentials: login and password to extract product (when required)

[6] D1.1 Use case scenarios v1. Deliverable of the EO4wildlife project, 2016

