

Work Package 1

Data Management & Integration

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WP 1 Objectives

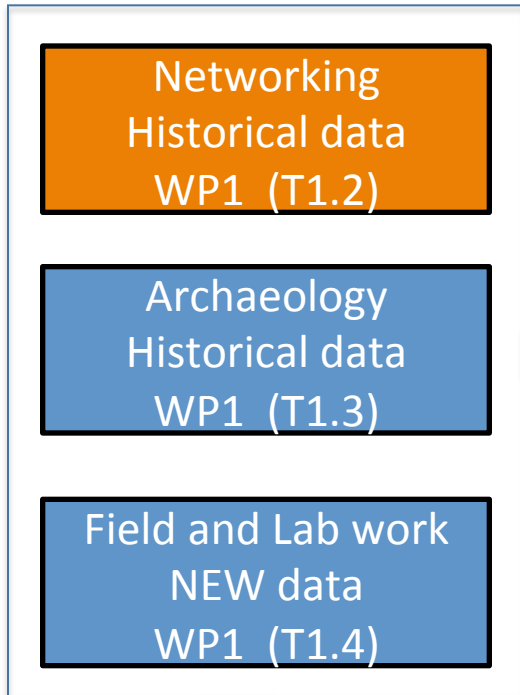
- Develop methods to consolidate and integrate long-term observations from European and international databases;
- Assemble historical data, new field observations and experimental results into comprehensive datasets for modelling and prediction of the Atlantic Ocean ecosystem and related services.

WP 1 Activities		Interactions with	2011	2012	2013	2014
T1.1	Integration	WP 2 – WP 9	●●●●	●●●●	●●●●	●●●●
T1.2	Networking	with Outside	○○●●	●●●●	●●●●	○○○○
T1.3	Archaeology	WP 2 – WP 5	○○●●	●●●●		
T1.4	Safeguarding	WP 2 – WP 8	○○○○	○○●●	●●●●	●●●●
T1.5	Data Publishing & Dissemination	WP 2 – WP 8	○○○○	○○●●	●●●●	●●●●
	Special issues in Copernicus ESSD	WP 2 – WP 8		○	●	●

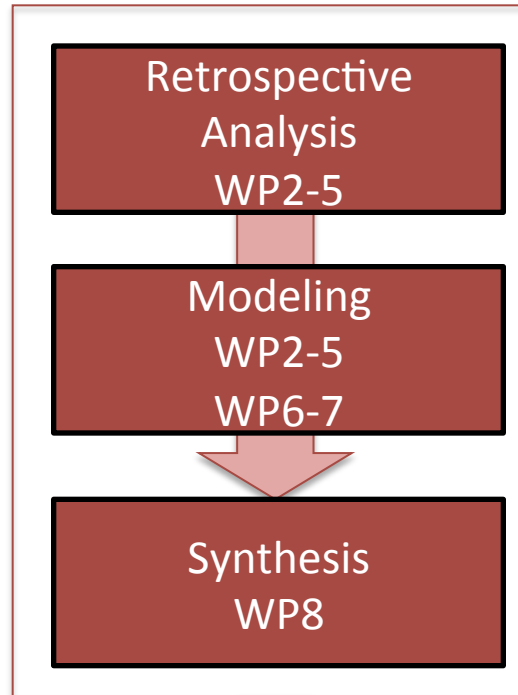
- Planning/Follow-up phase
- Implementation phase

INTEGRATION (T1.1)

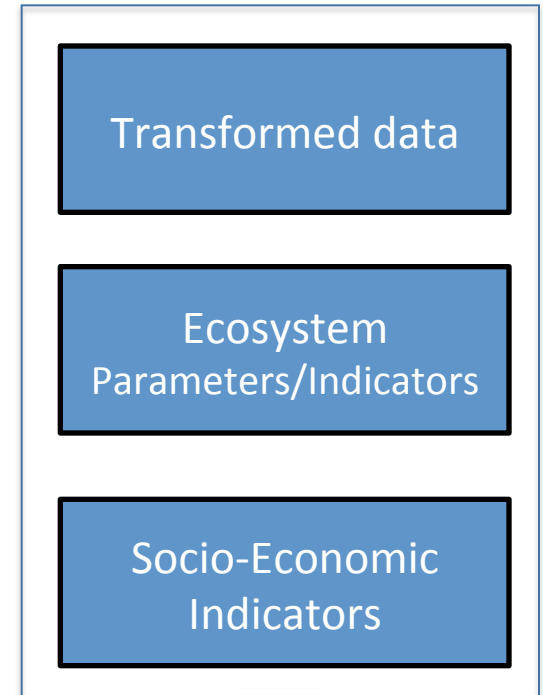
RAW DATA



ANALYSIS



RESULTS (DATA)



Special Issues
ESSD
WP1 (T1.5)

Scientific
Publications

Supplementary
Datasets
WP1 (T1.5)

NETWORKING (T1.2)

- Ontologies and standard vocabularies are developed in collaboration with SeaDataNet;
- Wish to constitute a working group with WP4 to define vocabularies for Vital Rates parameters
- The [Data Management Advisory Group](#) needs to be consolidated around writing the manuscript to be submitted to the EURO-BASIN special issue in Progress in Oceanography (Milestone 58)

ARCHAEOLOGY (T1.3)

- Dig-out samples/data that are not readily available/usable

Data Archaeology (WP1)	Data Analysis
T1.3.1 (literature review)	
T1.3.2 (sample re-analysis)	
T1.3.3 (rescue)	
T1.3.4 (rescue)	
T1.3.5 (sample re-analysis)	
T1.3.6 (rescue)	
T1.3.7 (data re-analysis)	
T1.3.8 (data re-analysis)	

ARCHAEOLOGY (T1.3)

- Dig-out samples/data that are not readily available/usable

Data Archaeology (WP1)	Data Analysis
T1.3.1 (literature review)	WP2 Biological Pump
T1.3.2 (sample re-analysis)	WP3 Biogeography
T1.3.3 (rescue)	WP4 Trophic Flows
T1.3.4 (rescue)	
T1.3.5 (sample re-analysis)	
T1.3.6 (rescue)	WP5 Living Resources
T1.3.7 (data re-analysis)	
T1.3.8 (data re-analysis)	

WP2 - The Biological Carbon Pump (BCP)

T2.4 – Algorithm Advancement. Retrospective Analyses and development of new parameterizations for particle flux.

T1.3.1 – Downward flux, decomposition, aggregation and transfer efficiencies

Sources: Consolidate data archives and literature

Responsible: NERC (MARTIN); CNRS

- Ancillary data (temperature, salinity, oxygen and nutrients) have been extracted from the World Ocean Atlas to match the sampling locations and times at which flux data is available.
- Data submitted in large part; Short delay in D1.1

WP3 - Distribution of key species and ecosystem types

T3.1 – Retrospective analysis of the spatial distribution of key species

T1.3.2 – Near surface distribution of key jellyfish species in the North Atlantic Ocean and Self Seas.

Sources: Re-analyse key CPR samples (2008-2010) using genomic analyses

Responsible: SAHFOS (LICANDRO)

- Morphological and genetic analyses were performed on 86 CPR samples collected in 2009 – 2011 and on specimens from time series available in the North East Atlantic.
- These analyses will also be the basis to construct a Jelly-fish DNA library.
- Data submitted in part; Short delay in D1.2

WP4 - Trophic flow: Productions and controls

T4.1 – Retrospective time series analysis of the relative abundance of key species

T1.3.3 – Abundance of key zooplankton species (*C. finmarchicus*, *C. hyperboreus*, *Oithona* and *Oncaea*) over decadal time scales for the North Atlantic.

Sources: Consolidate historical data from traditional net samples;

Responsible: DTU-AQUA (KÖSTER)

- The organization of historical data for West Greenland zooplankton has started but may show a delay (6 months) in D1.3.

WP4 - Trophic flow: Productions and controls

T4.1 – Retrospective time series analysis of the relative abundance of key species

T1.3.4 – Abundance and biomass of plankton and fish in the North Atlantic Ocean and Self Seas.

Sources: Rescue data from providers of OBIS Europe, USA and Canada

Responsible: Subcontract to VLIZ (HERNANDEZ); **Participants:** DFO, Rutgers

•Data submitted in large part; Short delay in D1.4

WP4 - Trophic flow: Productions and controls

T4.1 – Retrospective time series analysis of the relative abundance of key species

T1.3.5 – Abundance, size-spectra, biovolume and biomass for key zooplankton groups (e.g. Appendicularians, Chaetognaths, Cladocerans, Copepods, Decapods, Fish eggs, Gelatinous organisms and Pteropods) in the North-Atlantic Ocean and Shelf Seas.

Sources: Re-analyse of zooplankton samples using bench-top imaging systems

Responsible: CNRS (GORSKY); MRI-HAFRO

- Samples from the Norwegian Sea (May-June 2007-2011) have been scanned, and images from 2009-2011 have been analysed. Samples collected before 2007 are now being scanned.
- Data submitted in part; Short delay in D1.5
- Longer delay expected (6 months) in D1.5 for re-analysis by CNRS

WP5 - Dynamics of living resources and their utilisation

T5.1 – Bottom up controls on Spatial structure and habitats of key species

T5.2 – Top down controls by key species and fisheries on mid trophic levels

T1.3.6 – Catch and effort of North Atlantic fisheries.

Sources: Rescue paper publications & reports from EU, U.S.A. and Canada identified by ICES Workshop on historical data on fisheries and fish (SGHIST).

Responsible: Subcontract to ICES (HOLSWORTH)

Participants: ICES expert groups

- Work has been done by ICES to further define specific deliverables of the subcontract, based on further input by WP5.
- The planned work deviates from that described in the proposal, leading to considerable delay in the signature of the subcontract. NEED TO RESOLVE THIS WITH MIKE, BRIAN and VERENA this week!
- Considerable delay (12 months) expected for D1.6.

WP5 - Dynamics of living resources and their utilisation

T5.1 – Bottom up controls on Spatial structure and habitats of key species

T5.2 – Top down controls by key species and fisheries on mid trophic levels

T1.3.7 – Consolidate spatially explicit estimates of stocks sizes, structure, biomass and diet of Tuna in the North Atlantic.

Sources: Consolidate data from ICCAT database and trawl & acoustics surveys

Responsible: CLS (LEHODEY)

Participants: ICES, DTU and MRI-HAFRO

- Albacore fishing data (catch, effort and size frequencies) will be retrieved directly from the ICCAT database and processed with specific algorithms.

- Short delay (<6 months) in D1.7.

- Estimates of abundance of potential prey species for Bluefin Tuna from historical catch data has been re-allocated to DTU.

- Considerable delay (>6 months)

WP5 - Dynamics of living resources and their utilisation

T5.1 – Bottom up controls on Spatial structure and habitats of key species

T5.2 – Top down controls by key species and fisheries on mid trophic levels

T1.3.8 – Consolidate spatially explicit estimates of stocks sizes, structure, biomass and diet of Herring, blue Whiting and Mackerel in the North Atlantic.

Sources: Consolidate trawl and acoustics data

Responsible: IMR (HUSE)

Participants: ICES, IFREMER, CEFAS, IMI, MRI-HAFRO, Tecnalia-AZTI

- A database of gridded international abundance of fish stocks is being completed. Diet data is also being compiled
- Short delay in D1.8

SAFEGUARDING (T1.4)

Data Curator – Janine FELDEN



PhD: Marine Microbiology; Biogeochemical processes and in situ flux measurements

PostDoc: EU Project HERMIONE

-> *Fulltime since April 2012 so will be working with us for the next 3 years*

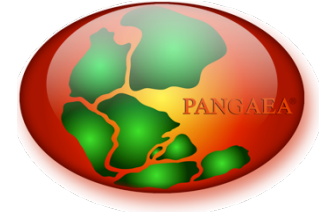
-> *Workshop on Statistical Modelling Tools (Milestone 13)*

-> *Workshop on Vital Rates measurement techniques (Milestone 18)*

-> *Safeguarding (T1.4) & Publishing (T1.5)*

SAFEGUARDING (T1.4)

- Metadata and data are quality checked & archived at PANGAEA Data Library and Publishing ;



- WP1: Archaeology data
 - WP2–WP5: NEW data from experiments and cruises
 - WP2–WP5: Retrospective analysis results
 - WP5–WP6: Key ecosystem parameters, life history data, and proxies for fisheries management
 - WP7: Socio-economic data/indicators
-
- DISCUSS PROGRESS DURING BREAK-OUT SESSIONS
 - NEED DETAILED CRUISE REPORT
 - NEED EXTENDED LIST OF RELEVANT LITERATURE to contact authors and publish supplementary data

DATA PUBLISHING (T1.5)

Benefits:

- Persistent and web-resolvable [Digital Object Identifiers \(DOI\)](#);
- Each data point is citable with a DOI;
- DOIs at PANGAEA are monitored by [ISI Web of Science](#) and will soon be part of [Citation Impact factors](#);
- [Free and Open Access](#) to metadata;
- [Free and Open Access](#) or [Restricted Access \(password\)](#) to data, according to data policy.

DATA DISSEMINATION (T1.5)

Tools:

- Google-like & advanced [metadata discovery](#) (public)
- Data Warehouse for [mass extraction](#) (EuroBASIN partners)
- Web-services to further disseminate public data to portals such as [EMODNET & OBIS](#) (presence & abundance), [SeaDataNet](#) (oceanography) and [Megx.net](#) (genomics)
- Web-services linking data publications and journal publications, e.g. [Elsevier](#), [Copernicus](#), [AGU](#) and [Springer](#)

INTEGRATION – Special issues in ESSD Journal



- Historical data from Networking, e.g. NODCs, WDS, ICES, SAHFOS
- Historical data from Archaeology
- NEW data from field and lab work

WP1 Deliverables	Based on work carried out by	
	Partner	Month
D1.1 to D1.8 Data Archaeology	Several	16- 22
D1.9 First Data Management & Integration report	UniHB	17
D1.10 Submission of data manuscripts to ESSD for the First EURO-BASIN special issue	ALL	22 -28
D1.11 Second Data Management & Integration report	UniHB	35
D1.12 Submission of data manuscripts to ESSD for the Second EURO-BASIN special issue	ALL	40
D1.13 Final Data Management & Integration report	UniHB	46

MILESTONES:

WP1 will contribute to Training workshops and Summer Schools (2 so far in 2011-2012)

Thank you for your attention

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