SeaDataNet

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

Extension to marine biological data

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VLIZ

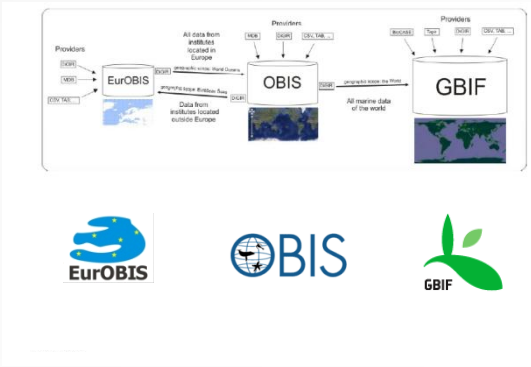
TTT Rhodes, 17 September 2012

Objective

- **SDN II extension to marine biological data**

SeaDataNet II will undertake actions to make SeaDataNet better fit for handling marine biological data sets and establishing interoperability with biology infrastructure developments.

EMODNET biology
EUROBIS & (OBIS and GBIF)
EUROMARINE
WORMS (& PESI, 4D4Life, EOL)
LIFEWATCH



Standards and practices in the biodiversity data

Biodiversity Information Standards (TDWG)

- non-profit scientific & educational association affiliated with International Union of Biological Sciences.
- development of standards for the exchange of biological/biodiversity data.

ABCD (Access to Biological Collections Data)

- schema for biological collection records with numerous specific extensions (1200 concepts in ABCD 2.06)

Darwin Core (DwC)

-versioned body of standards to facilitate the sharing of information about biological diversity

OBIS schema

-Darwin core V2 specificly aimed at ocean biogeographic information

LSID: Life Science Identifier

persistent, globally unique identifiers for biological objects including taxonomic names, specimen records, images and DNA sequences...

Suggested format

- SDN ODV like open and flat format with 20 fixed elements

  + additionally all DwC

    OBIS

    SDN

    ICES

    ….

Cruise
Station
Type
yyyy-mm-ddThh:mm:ss.sss (extend?->EventDateTime)
Longitude [degrees_east]
Latitude [degrees_north]
LOCAL_CDI_ID
EDMO_code
Bot.Depth
StartLatitude
EndLatitude
EndLongitude
EndLatitude
Precision
MinimumDepth
MaximumDepth
EventID
SampleSize
ScientificName
ScientificNameLSID
Sex
LifeStage
ObservedIndividualCount
ObservedWeight
AssociatedSequences
AssociatedSequencesLSID
MeasuredIndividuals
MeasurementType
MeasurementUnit
MeasurementValue
+ In addition all DwC, OBIS and CDI fieldscan be included

Data format

- Tab delimited, flat
- Header + data table

BioFormat1.1_LF.txt - Kladblok

Bestand Bewerken Opmaak Beeld Help

```
//<CoreFields>
//<Field Index="1" Name="SurveyID" Description="A named collection or survey project to which the unit belongs" Reference="http://rs.tdwg.org/ABCD/AbcdConcepts/Dat
//<Field Index="2" Name="LocationID" Description="An identifier for the set of location information (data associated with dcterms:Location). May be a global unique
//<Field Index="3" Name="Longitude" Description="The longitude of the location from which the specimen was collected or in which the sample/observation/record ever
//<Field Index="4" Name="Latitude" Description="The latitude of the location from which the specimen was collected. This value should be expressed in decimal degre
//<Field Index="5" Name="WKTFootPrint" Description="A Well-Known Text (WKT) representation of the shape (footprint, geometry) that defines the Location. If the ori
//<Field Index="6" Name="EventID" Description="An identifier for the set of information associated with an Event (something that occurs at a place and time). May b
//<Field Index="7" Name="SamplingProtocol" Description="The name of, reference to, or description of the method or protocol used during an Event." Reference="http:
//<Field Index="8" Name="EventDate" Description="The date-time or interval during which an Event occurred. For occurrences, this is the date-time when the event wa
//<Field Index="9" Name="MinimumDepth" Description="The minimum distance in meters below the surface of the water at which the collection/record was made; all mate
//<Field Index="10" Name="MaximumDepth" Description="The maximum distance in meters below the surface of the water at which the collection/record was made; all mat
//<Field Index="11" Name="FieldNumber" Description="An identifier given to the event in the field. Often serves as a link between field notes and the Event.    Fie
//<Field Index="12" Name="SampleSize" Description="The size of the sample from which the collection/observation was drawn. It can be a volume (e.g. for a phytoplar
//<Field Index="13" Name="ScientificName" Description="The full scientific name, with authorship and date information if known. When forming part of an Identificat
//<Field Index="14" Name="ScientificNameID" Description="An identifier for the nomenclatural (not taxonomic) details of a scientific name. Reference="http://rs.tdw
//<Field Index="15" Name="Sex" Description="The sex of the biological individual(s) represented in the Occurrence. Recommended best practice is to use a controlled
//<Field Index="16" Name="LifeStage" Description="The age class or life stage of the biological individual(s) at the time the Occurrence was recorded. Recommended
//<Field Index="17" Name="ObservedIndividualCount" Description="For the taxon under consideration, give the number of individuals that was found in the (sub)sample
//<Field Index="18" Name="AssociatedSequences"  Description="A list (concatenated and separated) of identifiers (publication, global unique identifier, URI) of ger
//</CoreFields>
//<AdditionalFields>
//<Field Index="19" Name="SizCl" Description="Size Class" Reference="http://vocab.ices.dk/term/SizCl"   MeasurementTypeReference="" MeasurementUnitReference="" htt
//<Field Index="20" Name="SizeClassDensity_per_m2" Description="Abundance of demersal fish per size class per unit area of the bed by length measurement and visual
//</CoreFields>
//
Survey  LocationID      Longitude       Latitude        WKTFootPrint    EventID SamplingProtocol        EventDate       MinimumDepth    MaximumDepth    FieldNumber
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
RV Pelagia/199402       Voordelta2                      "LINESTRING(3.56289 51.72211, 3.57123 51.89621)"        VD_1201 Beam Trawl; 5m width; 20cm high; mesh size
```

Data format

- Header: Field definitions for core fields and additional fields
  - **Field Index**: Chronological column number of field in the tab delimited file
  - **Field Name**: Exact name or label used for field in the tab delimited file
  - **Field Description**: Exact name or label used for field in the tab delimited file
  - **Field Reference**: Reference to term from 'official' standard or scheme for the field in the tab delimited file
  - **Field MeasurementTypeReference:** Reference to term from 'official' list or vocabulary for the MeasurementType described by the field in the tab delimited file
  - **Field MeasurementUnitReference:** Reference to term from 'official' list or vocabulary for the MeasurementUnit described by the field in the tab delimited file
  - **Field MeasurementMethodReference:** Reference to term from 'official' list or vocabulary for the MeasurementUnit described by the the field in the csv or tab delimited file
  - **Field AllowedValuesReference:** Reference to 'official' list or vocabulary describing the allowed values for the field in the tab delimited file

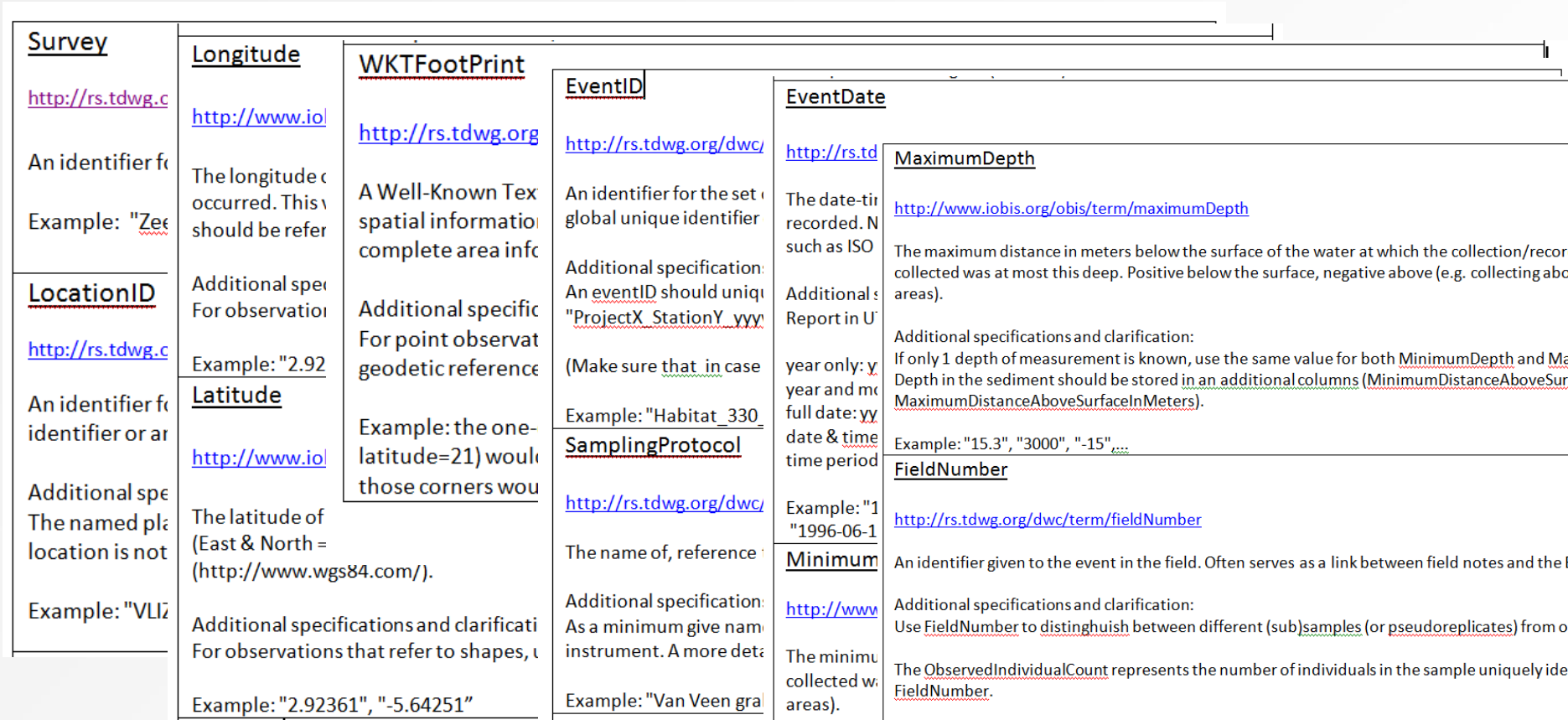
Data format

- Data table: field column headers + data rows

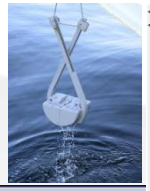
Survey	FieldNumber
LocationID	SampleSize
Longitude	ScientificName
Latitude	ScientificNameID
WKTFootPrint	Sex
EventID	LifeStage
SamplingProtocol	ObservedIndividualCount
EventDate	AssociatedSequences
MinimumDepth	
MaximumDepth	*Additional Fields…*

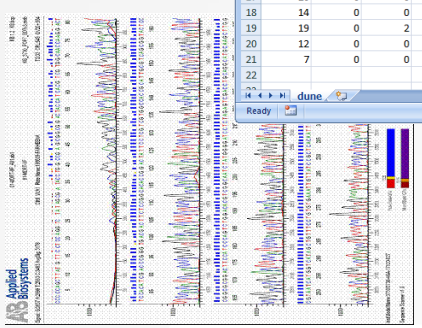
Data format

- Field Definitions



Examples





WGPDMOexample.txt - Kladblok

Bestand Bewerken Opmaak Beeld Help

```
00,BLUK,74,2004,3.2,,,,,,,,,,,,,,,
20,BLUK,1,GRT,,,,4,,,,,,,,,,,
21,1,BLUK,,T19,NA,NON,NA,,,GRS,,,,,,,,,
90,74E9,CEND7/04,DEFRA,,,,,,,,,,,,,,,,
91,CEND7/04,77,+55 19.234,-001 15.123,HLS,20040705
03,CEND7/04,77,CF,1,1,,,LIMANDA LIMANDA,ITLN,RS,,
04,CEND7/04,77,1,1,1,OW,M,NS,,K,3,,,,,,,,
10,CEND7/04,77,1,1,WO,,,LNMEA,CM,,1,,,17,,,,,,
10,CEND7/04,77,1,1,EP,,,LYMP CYS,AFNR,,1,,,1,,,,,
10,CEND7/04,77,1,1,EP,,,SKIN ULC,AFNR,,1,,,0,,,,,
10,CEND7/04,77,1,1,EP,,,EPID PAP,AFNR,,1,,,0,,,,,
04,CEND7/04,77,1,2,1,OW,F,NS,,K,3,,,,,,,,
10,CEND7/04,77,1,2,WO,,,LNMEA,CM,,1,,,18,,,,,
10,CEND7/04,77,1,2,EP,,,LYMP CYS,AFNR,,1,,,1,,,,,
10,CEND7/04,77,1,2,EP,,,SKIN ULC,AFNR,,1,,,0,,,,,
10,CEND7/04,77,1,2,EP,,,EPID PAP,AFNR,,1,,,1,,,,,
04,CEND7/04,77,1,3,4,OW,F,NS,,K,2,,,,,,,,
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04,CEND7/04,77,1,4,1,OW,F,NS,,K,3,,,,,,,,
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10,CEND7/04,77,1,4,EP,,,SKIN ULC,GRADE,,1,,,3,,,,
10,CEND7/04,77,1,4,EP,,,EPID PAP,GRADE,,1,,,1,,,,
10,CEND7/04,77,1,4,EP,,,LYMP CYS,GRADE,,1,,,0,,,,
```

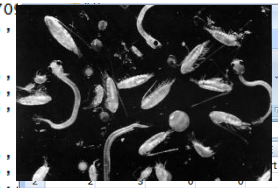

dune.csv - Microsoft Excel

	A	B	C	D	E	F	G	H	I	J	K	L
1						Airpra	Eleg					
2	2	3	0	0	0	0						
3	13	0	0	3	0	0	0	0	0	2	0	2
4	4	2	0	0	0	0	8	0	0	4	2	0
5	16	0	0	0	3	0	0	6	0	6	0	0
6	6	0	0	0	0	0	0	0	0	0	0	0
7	1	0	0	0	0	0	0	0	0	2	2	0
8	8	0	0	0	4	0	4	0	0	2	0	0
9	5	2	0	0	0	0	0	5	0	2	0	0
10	17	0	0	0	2	0	0	0	0	0	0	0
11	15	0	0	0	3	0	5	0	0	4	2	0
12	10	2	0	0	0	0	0	0	1	2	0	0
13	11	0	0	0	0	0	0	0	2	4	0	0
14	9	0	0	4	4	0	0	2	0	2	0	0
15	18	2	0	0	0	0	0	0	1	6	0	0
16	3	2	0	0	0	0	0	0	0	2	0	0
17	20	0	0	0	4	0	4	0	0	4	4	0
18	14	0	0	0	0	0	4	0	0	0	2	0
19	19	0	2	0	0	3	0	0	0	3	0	0
20	12	0	0	4	0	0	0	2	0	4	0	0
21	7	0	0	2	0	0	0	3	0	2	0	0
22												

dune

Ready 100%

```
<?xml version="1.0" encoding="UTF-8"?>
<SimpleDarwinRecordSet
 xmlns="http://rs.tdwg.org/dwc/xsd/simpledarwincore/"
 xmlns:dc="http://purl.org/dc/terms/"
 xmlns:dwc="http://rs.tdwg.org/dwc/terms/"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xsi:schemaLocation="http://rs.tdwg.org/dwc/xsd/simpledarwincore/ http://rs.tdwg.org/dwc/xsd
 <SimpleDarwinRecord>
  <dc:modified>2006-05-04T18:13:51.0Z</dc:modified>
  <dc:language>en</dc:language>
  <dwc:basisOfRecord>Taxon</dwc:basisOfRecord>
  <dwc:scientificNameID>http://research.calacademy.org/research/ichthyology/catalog/fishcatg
  <dwc:acceptedNameUsageID>http://research.calacademy.org/research/ichthyology/catalog/fishc
  <dwc:originalNameUsageID>http://research.calacademy.org/research/ichthyology/catalog/fishcatget.asp?spid=33548</dwc:originalNameUsageID>
  <dwc:nameAccordingToID>http://research.calacademy.org/research/ichthyology/catalog/getref.asp?id=22764</dwc:nameAccordingToID>
  <dwc:namePublishedInID>http://research.calacademy.org/research/ichthyology/catalog/getref.asp?id=671</dwc:namePublishedInID>
  <dwc:scientificName>Centropyge flavicauda Fraser-Brunner 1933</dwc:scientificName>
  <dwc:acceptedNameUsage>Centropyge fisheri (Snyder 1904)</dwc:acceptedNameUsage>
  <dwc:parentNameUsage>Centropyge  Kaup, 1860</dwc:parentNameUsage>
  <dwc:originalNameUsage>Centropyge flavicauda Fraser-Brunner 1933</dwc:originalNameUsage>
  <dwc:nameAccordingTo>Allen, G.R. 1980. Butterfly and angelfishes of the world. Volume II. Mergus Publishers. Pp. 149-352.</dwc:nameAccordingTo>
  <dwc:namePublishedIn>Fraser-Brunner, A. 1933. A revision of the chaetodont fishes of the subfamily Pomacanthinae. Proceedings of the General
          Meetings for Scientific Business of the Zoological Society of London 1933 (pt 3, no.30): 543-599, Pl. 1.</dwc:namePublishedIn>
  <dwc:higherClassification>Animalia;Chordata;Vertebrata;Osteichthyes;Actinopterygii;Neopterygii;Teleostei;Acanthopterygii;Perciformes;
          Percoidei;Pomacanthidae;Centropyge</dwc:higherClassification>
  <dwc:kingdom>Animalia</dwc:kingdom>
  <dwc:phylum>Chordata</dwc:phylum>
  <dwc:class>Osteichthyes</dwc:class>
  <dwc:order>Perciformes</dwc:order>
  <dwc:family>Pomacanthidae</dwc:family>
  <dwc:genus>Centropyge</dwc:genus>
  <dwc:specificEpithet>flavicauda</dwc:specificEpithet>
  <dwc:scientificNameAuthorship>Fraser-Brunner 1933</dwc:scientificNameAuthorship>
  <dwc:taxonRank>species</dwc:taxonRank>
  <dwc:nomenclaturalCode>ICZN</dwc:nomenclaturalCode>
  <dwc:taxonomicStatus>accepted</dwc:taxonomicStatus>
 </SimpleDarwinRecord>
</SimpleDarwinRecordSet>
```

Vissoort : Schol Datum : 04/07/2008

Vaartuig : O.89 PK : Visserij : bokken

Zone : N Visuren : Totale vangst : 11060

Sortering	1	2	3	4	5
Tot. vangst	1880	3491	4289	1210	190
Monster	25.460	36.450	48.100	61.200	91.200
24					
25					
26	3				
27	7				
28	20				
29	23				
30	27	1			
31	14	12			
32	5	29			
33	1	29	5		
34		21	16		
35		6	20		
36		1	27	4	
37			15	8	
38			7	21	2
39				28	2
40				16	2
41			1	14	4
42				3	10
43				3	10
44				1	9
45				1	22
46					10
47				1	5
48					10
49					4
50					2

Page 1

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

SeaDataNet

Examples

- Macrobenthos community data

//<CoreFields>
//<Field Index="1" Name="SurveyID" Description="A named collection or survey project to which the unit belongs"
//<Field Index="2" Name="LocationID" Description="An identifier for the set of location information (data associated with dcterms:Location). May be a global unique identifier or an identifier specific to the data set.
//<Field Index="3" Name="Longitude" Description="The longitude of the location from which the specimen was collected or in which the sample/observation/record event occurred. This value should be expressed in decimal c
//<Field Index="4" Name="Latitude" Description="The latitude of the location from which the specimen was collected. This value should be expressed in decimal degrees (East & North = +; West & South = -). GPS-derived data r
//<Field Index="5" Name="WKTFootPrint" Description="A Well-Known Text (WKT) representation of the shape (footprint, geometry) that defines the Location. If the original spatial information is an area (for example, a grid ce
//<Field Index="6" Name="EventID" Description="An identifier for the set of information associated with an Event (something that occurs at a place and time). May be a global unique identifier or an identifier specific to the da
//<Field Index="7" Name="SamplingProtocol" Description="The name of, reference to, or description of the method or protocol used during an Event." Reference="http://rs.tdwg.org/dwc/term/samplingProtocol
//<Field Index="8" Name="EventDate" Description="The date-time or interval during which an Event occurred. For occurrences, this is the date-time when the event was recorded. Not suitable for a time in a geological context.
//<Field Index="9" Name="MinimumDepth" Description="The minimum distance in meters below the surface of the water at which the collection/record was made; all material collected was at least this deep. Positive below t
//<Field Index="10" Name="MaximumDepth" Description="The maximum distance in meters below the surface of the water at which the collection/record was made; all material collected was at most this deep. Positive belov
//<Field Index="11" Name="FieldNumber" Description="An identifier given to the event in the field. Often serves as a link between field notes and the Event.
//<Field Index="12" Name="SampleSize" Description="The size of the sample from which the collection/observation was drawn. It can be a volume (e.g. for a phytoplankton sample), a linear distance (e.g. for a visual transect o
//<Field Index="13" Name="ScientificName" Description="The full scientific name, with authorship and date information if known. When forming part of an Identification, this should be the name in lowest level taxonomic ran
//<Field Index="14" Name="ScientificNameID" Description="An identifier for the nomenclatural (not taxonomic) details of a scientific name. Reference="http://rs.tdwg.org/dwc/term/scientificNameID
//<Field Index="15" Name="Sex" Description="The sex of the biological individual(s) represented in the Occurrence. Recommended best practice is to use a controlled vocabulary.
//<Field Index="16" Name="LifeStage" Description="The age class or life stage of the biological individual(s) at the time the Occurrence was recorded. Recommended best practice is to use a controlled vocabulary.
//<Field Index="17" Name="ObservedIndividualCount" Description="For the taxon under consideration, give the number of individuals that was found in the (sub)sample described by FieldNumber. The ObservedIndividualCou
//<Field Index="18" Name="AssociatedSequences"
//</CoreFields>
//<AdditionalFields>
//<Field Index="19" Name="SMVOL_l" Description="Total sampled volume (litre for PP, cubic meter for ZP, and litre sediment for ZB)" Reference="http://vocab.ices.dk/term/SMVOL_l" MeasurementTypeReference="" Measui
//<Field Index="20" Name="Density_per_m2" Description="Abundance of undifferentiated miscellaneous macrofauna per unit area of the bed by sieving and picking under an optical microscope (individuals/m²)" Measuremer
//</AdditionalFields>
//

Survey	LocationID	Longitude	Latitude	WKTFootPrint	EventID	SamplingProtocol	EventDate	MinimumDepth
RV Mechelen/197606	330	2.92361	51.24411	POINT(2.92361 51.24410)	MACROBEL_13	Van Veen grab	1976-06	
RV Mechelen/197606	330	2.92361	51.24411	POINT(2.92361 51.24410)	MACROBEL_13	Van Veen grab	1976-06	
RV Mechelen/197606	330	2.92361	51.24411	POINT(2.92361 51.24410)	MACROBEL_13	Van Veen grab	1976-06	
RV Mechelen/197606	330	2.92361	51.24411	POINT(2.92361 51.24410)	MACROBEL_13	Van Veen grab	1976-06	
RV Mechelen/197606	330	2.92361	51.24411	POINT(2.92361 51.24410)	MACROBEL_13	Van Veen grab	1976-06	
RV Mechelen/197606	330	2.92361	51.24411	POINT(2.92361 51.24410)	MACROBEL_13	Van Veen grab	1976-06	

MaximumDepth	FieldNumber	SampleSize	ScientificName	ScientificNameID	Sex	LifeStage	ObservedIndividualCount	Associat	SMVOL_l	Density_per_m2
21.5	MACROBEL_330_197606_1351_sub1	$0.1\ m^2$	Modiolus modiolus	urn:lsid:marinespecies.c		Adult	5		5	50.00
21.5	MACROBEL_330_197606_1351_sub1	$0.1\ m^2$	Spisula subtruncata	urn:lsid:marinespecies.c		Adult	9		5	90.00
21.5	MACROBEL_330_197606_1351_sub2	$0.1\ m^2$	Spisula subtruncata	urn:lsid:marinespecies.c		Adult	3		5	30.00
21.5	MACROBEL_330_197606_1352_sub1	$0.1\ m^2$	Macoma balthica	urn:lsid:marinespecies.c		Adult	15		5	150.00
21.5	MACROBEL_330_197606_1352_sub1	$0.1\ m^2$	Abra alba	urn:lsid:marinespecies.c		Adult	31		5	310.00
21.5	MACROBEL_330_197607_1352_sub1	$0.1\ m^2$	Diastylis rathkei	urn:lsid:marinespecies.c		Adult	68		5	680.00
23.1	MACROBEL_ZG02_197607_1206_sub1	$0.1\ m^2$	Gammarus	urn:lsid:marinespecies.c		Adult	4		5	40.00
23.1	MACROBEL_ZG02_197606_1206_sub1	$0.1\ m^2$	other mollusca	urn:lsid:marinespecies.c			5		5	50.00

Examples

- Zooplankton profile data

//<CoreFields>
//<Field Index="1" Name="SurveyID" Description="A named collection or survey project to which the unit belongs"
//<Field Index="2" Name="LocationID" Description="An identifier for the set of location information (data associated with dcterms:Location). May be a global unique identifier or an identifier specific to the data set.
//<Field Index="3" Name="Longitude" Description="The longitude of the location from which the specimen was collected or in which the sample/observation/record event occurred. This value should be expressed in decimal d
//<Field Index="4" Name="Latitude" Description="The latitude of the location from which the specimen was collected. This value should be expressed in decimal degrees (East & North = +; West & South = -). GPS-derived data m
//<Field Index="5" Name="WKTFootPrint" Description="A Well-Known Text (WKT) representation of the shape (footprint, geometry) that defines the Location. If the original spatial information is an area (for example, a grid cel
//<Field Index="6" Name="EventID" Description="An identifier for the set of information associated with an Event (something that occurs at a place and time). May be a global unique identifier or an identifier specific to the dat
//<Field Index="7" Name="SamplingProtocol" Description="The name of, reference to, or description of the method or protocol used during an Event." Reference="http://rs.tdwg.org/dwc/term/samplingProtocol
//<Field Index="8" Name="EventDate" Description="The date-time or interval during which an Event occurred. For occurrences, this is the date-time when the event was recorded. Not suitable for a time in a geological context.
//<Field Index="9" Name="MinimumDepth" Description="The minimum distance in meters below the surface of the water at which the collection/record was made; all material collected was at least this deep. Positive below th
//<Field Index="10" Name="MaximumDepth" Description="The maximum distance in meters below the surface of the water at which the collection/record was made; all material collected was at most this deep. Positive below
//<Field Index="11" Name="FieldNumber" Description="An identifier given to the event in the field. Often serves as a link between field notes and the Event.
//<Field Index="12" Name="SampleSize" Description="The size of the sample from which the collection/observation was drawn. It can be a volume (e.g. for a phytoplankton sample), a linear distance (e.g. for a visual transect or
//<Field Index="13" Name="ScientificName" Description="The full scientific name, with authorship and date information if known. When forming part of an Identification, this should be the name in lowest level taxonomic rank
//<Field Index="14" Name="ScientificNameID" Description="An identifier for the nomenclatural (not taxonomic) details of a scientific name. Reference="http://rs.tdwg.org/dwc/term/scientificNameID
//<Field Index="15" Name="Sex" Description="The sex of the biological individual(s) represented in the Occurrence. Recommended best practice is to use a controlled vocabulary.
//<Field Index="16" Name="LifeStage" Description="The age class or life stage of the biological individual(s) at the time the Occurrence was recorded. Recommended best practice is to use a controlled vocabulary.
//<Field Index="17" Name="ObservedIndividualCount" Description="For the taxon under consideration, give the number of individuals that was found in the (sub)sample described by FieldNumber. The ObservedIndividualCou
//<Field Index="18" Name="AssociatedSequences"
//</CoreFields>
//<AdditionalFields>
//<Field Index="19" Name="SMVOL_l" Description="Total sampled volume (litre for PP, cubic meter for ZP, and litre sediment for ZB)" Reference="http://vocab.ices.dk/term/SMVOL_l" MeasurementTypeReference="" Measure
//<Field Index="20" Name="Density_per_m3" Description="Abundance of zooplankton in the water column per unit volume filtered by visual identification under an optical microscope (individuals/m3)" MeasurementTypeRef
//</AdditionalFields>
//

Survey	LocationID	Longitude	Latitude	WKTFootPrint	EventID	SamplingProtocol	EventDate	MinimumDepth	MaximumDepth	FieldNumber
RV Simon Stevin/201204	710	2.92361	51.24411	POINT(2.92361 51.24410)	LW_1351	Zooplankton Pump	2012-04-05T06:02:13Z/2012-04-05T06:12:44Z	5	5	LW_710_201204_5
RV Simon Stevin/201204	710	2.92361	51.24411	POINT(2.92361 51.24410)	LW_1351	Zooplankton Pump	2012-04-05T06:02:13Z/2012-04-05T06:12:44Z	5	5	LW_710_201204_5
RV Simon Stevin/201204	710	2.92361	51.24411	POINT(2.92361 51.24410)	LW_1351	Zooplankton Pump	2012-04-05T06:02:13Z/2012-04-05T06:12:44Z	5	5	LW_710_201204_5
RV Simon Stevin/201204	710	2.92361	51.24411	POINT(2.92361 51.24410)	LW_1351	Zooplankton Pump	2012-04-05T06:02:13Z/2012-04-05T06:12:44Z	5	5	LW_710_201204_5
RV Simon Stevin/201204	710	2.92361	51.24411	POINT(2.92361 51.24410)	LW_1351	Zooplankton Pump	2012-04-05T06:02:13Z/2012-04-05T06:12:44Z	10	10	LW_710_201204_10
RV Simon Stevin/201204	710	2.92361	51.24411	POINT(2.92361 51.24410)	LW_1351	Zooplankton Pump	2012-04-05T06:02:13Z/2012-04-05T06:12:44Z	10	10	LW_710_201204_10

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

SeaDataNet

Examples

- Fish Length-Frequency

//<CoreFields>
//<Field Index="1" Name="SurveyID" Description="A named collection or survey project to which the unit belongs"
//<Field Index="2" Name="LocationID" Description="An identifier for the set of location information (data associated with dcterms:Location). May be a global unique identifier or an identifier specific to the data set.
//<Field Index="3" Name="Longitude" Description="The longitude of the location from which the specimen was collected or in which the sample/observation/record event occurred. This value should be expressed in dec
//<Field Index="4" Name="Latitude" Description="The latitude of the location from which the specimen was collected. This value should be expressed in decimal degrees (East & North = +; West & South = -). GPS-derived
//<Field Index="5" Name="WKTFootPrint" Description="A Well-Known Text (WKT) representation of the shape (footprint, geometry) that defines the Location. If the original spatial information is an area (for example, a g
//<Field Index="6" Name="EventID" Description="An identifier for the set of information associated with an Event (something that occurs at a place and time). May be a global unique identifier or an identifier specific to t
//<Field Index="7" Name="SamplingProtocol" Description="The name of, reference to, or description of the method or protocol used during an Event." Reference="http://rs.tdwg.org/dwc/term/samplingProtocol
//<Field Index="8" Name="EventDate" Description="The date-time or interval during which an Event occurred. For occurrences, this is the date-time when the event was recorded. Not suitable for a time in a geological co
//<Field Index="9" Name="MinimumDepth" Description="The minimum distance in meters below the surface of the water at which the collection/record was made; all material collected was at least this deep. Positive be
//<Field Index="10" Name="MaximumDepth" Description="The maximum distance in meters below the surface of the water at which the collection/record was made; all material collected was at most this deep. Positive
//<Field Index="11" Name="FieldNumber" Description="An identifier given to the event in the field. Often serves as a link between field notes and the Event.
//<Field Index="12" Name="SampleSize" Description="The size of the sample from which the collection/observation was drawn. It can be a volume (e.g. for a phytoplankton sample), a linear distance (e.g. for a visual tran
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//<Field Index="14" Name="ScientificNameID" Description="An identifier for the nomenclatural (not taxonomic) details of a scientific name. Reference="http://rs.tdwg.org/dwc/term/scientificNameID
//<Field Index="15" Name="Sex" Description="The sex of the biological individual(s) represented in the Occurrence. Recommended best practice is to use a controlled vocabulary.
//<Field Index="16" Name="LifeStage" Description="The age class or life stage of the biological individual(s) at the time the Occurrence was recorded. Recommended best practice is to use a controlled vocabulary.
//<Field Index="17" Name="ObservedIndividualCount" Description="For the taxon under consideration, give the number of individuals that was found in the (sub)sample described by FieldNumber. The ObservedIndivid
//<Field Index="18" Name="AssociatedSequences" Description="A list (concatenated and separated) of identifiers (publication, global unique identifier, URI) of genetic sequence information associated with the Occurre
//</CoreFields>
//<AdditionalFields>
//<Field Index="19" Name="SizCl" Description="Size Class" Reference="http://vocab.ices.dk/term/SizCl" MeasurementTypeReference="" MeasurementUnitReference="" MeasurementMethodReference="" AllowedValu
//<Field Index="20" Name="SizeClassDensity_per_m2" Description="Abundance of demersal fish per size class per unit area of the bed by length measurement and visual identification(individuals/m²)" MeasurementTyp
//</CoreFields>
//

Survey	LocationID	Longitude	Latitude	WKTFootPrint	EventID	SamplingProtocol	EventDate	MinimumD
RV Pelagia/199402	Voordelta2			LINESTRING(3.56289 51.72211, 3.57123 51.89621)	VD_1201	Beam Trawl; 5m width; 2(	1994-02-05T06:02:13Z/1994-02-05T06:12:44Z	
RV Pelagia/199402	Voordelta2			LINESTRING(3.56289 51.72211, 3.57123 51.89621)	VD_1201	Beam Trawl; 5m width; 2(	1994-02-05T06:02:13Z/1994-02-05T06:12:44Z	
RV Pelagia/199402	Voordelta2			LINESTRING(3.56289 51.72211, 3.57123 51.89621)	VD_1201	Beam Trawl; 5m width; 2(	1994-02-05T06:02:13Z/1994-02-05T06:12:44Z	
RV Pelagia/199402	Voordelta2			LINESTRING(3.56289 51.72211, 3.57123 51.89621)	VD_1201	Beam Trawl; 5m width; 2(	1994-02-05T06:02:13Z/1994-02-05T06:12:44Z	
RV Pelagia/199402	Voordelta2			LINESTRING(3.56289 51.72211, 3.57123 51.89621)	VD_1201	Beam Trawl; 5m width; 2(	1994-02-05T06:02:13Z/1994-02-05T06:12:44Z	

MaximumDepth	FieldNumber	SampleSize	ScientificName	ScientificNameID	Sex	LifeStage	ObservedIndividualCount	Associat	SizCl	Density_per_m2
	VD_1201_304_Pomloz_8_9	320 m²	Pomatoschistus lozanoi	urn:lsid:marinespecies.o	Male	Adult	4		8-9	60.00
	VD_1201_304_Pomloz_9_10	320 m²	Pomatoschistus lozanoi	urn:lsid:marinespecies.o	Male	Adult	2		9-10	30.00
	VD_1201_304_Pomloz_10_11	320 m²	Pomatoschistus lozanoi	urn:lsid:marinespecies.o	Male	Adult	1		10-11	15.00
	VD_1201_304_GadMor_0_5	320 m²	Solea solea	urn:lsid:marinespecies.o	Male	Adult	2		0-5	30.00
	VD_1201_304_GadMor_5_10	320 m²	Solea solea	urn:lsid:marinespecies.o	Female	Adult	4		5-10	60.00

Conclusion

=> Core based on available elements from OBIS, Darwin core and ABCD

=> Data exchange and transfer model (Not a full and complete data storage model;

Only basic elements required; but extensible with optional fields

=> Practical, with detailed specs on allowed data syntax and conventions (work in progress)

Progress and outlook

- TTT meeting March: general concept of data format + initial selection of fields
- TTT meetingToday:
  - validated selection of core fields
  - header elements defined
  - example data files
- Next TTT:
  - Processed input of
    - ICES (concept and ices fields)
    - AWI (ODV compatibility)
    - BODC (use of P011)
    - IFREMER (testing)