

The road to publishing data

Learnings from Nansen Legacy



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SIOS

SVALBARD INTEGRATED ARCTIC
EARTH OBSERVING SYSTEM

Project facts

- 19 cruises N. Barents Sea
- ~280 people
- 10 Norwegian institutions
- Multidisciplinary



Main challenge

- Wide range of data

Darwin Core
CF (Climate & Forecast)

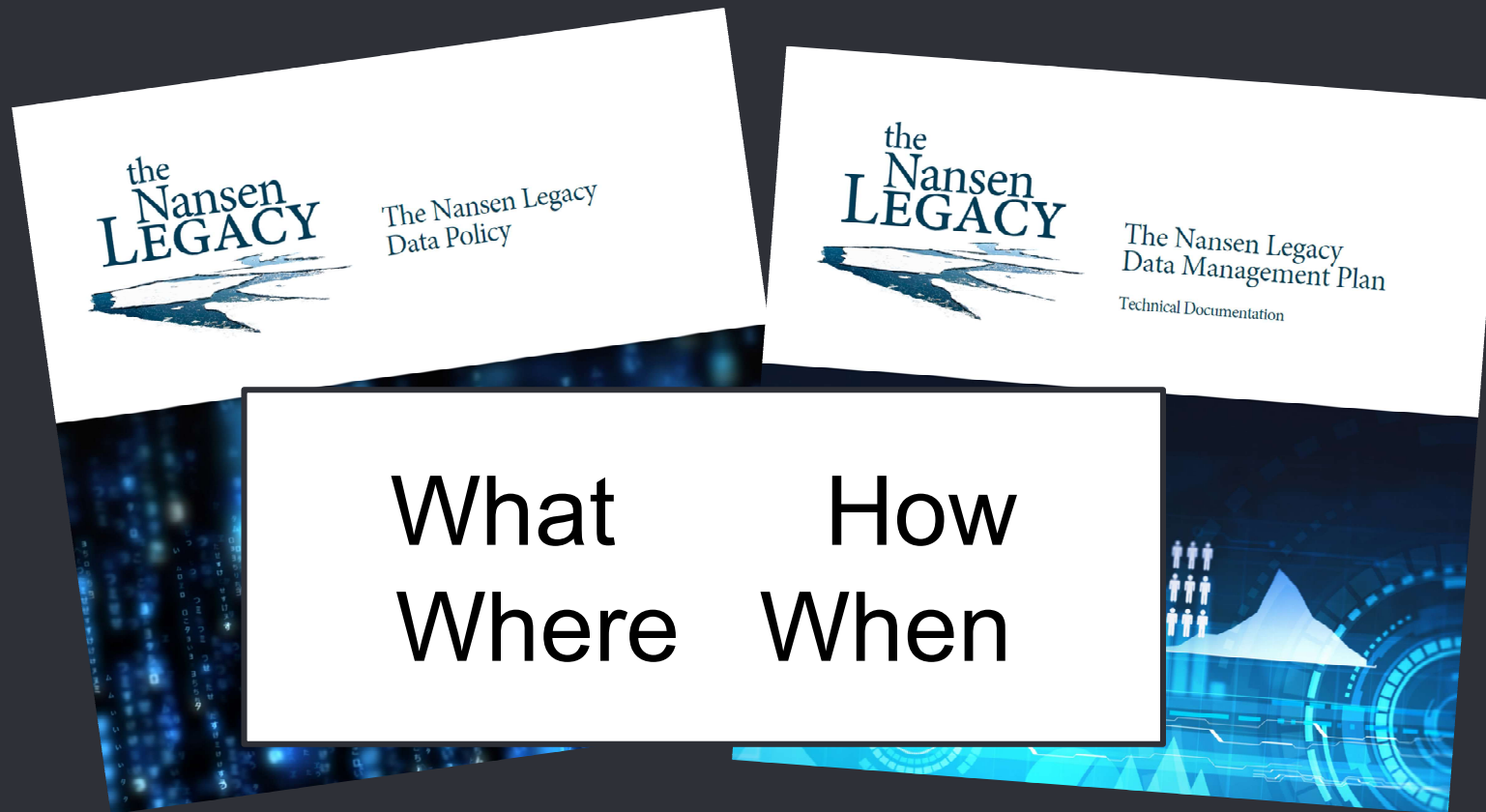
Result

- Very broadly applicable tools!

Planning

Data policy <https://doi.org/10.7557/nlrs.5799>

Data management plan <https://doi.org/10.7557/nlrs.5800>





Ice floe dimensions

Planning Collection

Dimensions

4.5 x 7.8 x 0.48 m

5.1 x 3.4 x 0.61 m

Max Width (m)	Min Width (m)	Depth (cm)
8	4	50
5	3	60

X (m)	Y (m)	Z (m)
4	8	0.5
5.1	3.4	0.6

Template generator

<https://sios-svalbard.org/cgi-bin/darwinsheet/?setup=aen>

Planning Collection

aen ▼ Select setup

Nansen Legacy Excel Template Generator

Check the boxes next to the terms you want to include in your template and click the **Create template** button.

[Darwin Core Terms: A quick reference guide](#)

[Back to main page](#)

Create template

REQUIRED

- Event Date
- Event ID
- Event Remarks
- Event Time
- Parent Event ID
- PI email
- PI institution
- Principal investigator (PI)
- Recorded By
- Sample Location
- Sample Type
- Sampling Protocol

EVENT

- Bottle Number
- End Date
- Gear Type
- Intended Method
- Maximum Depth In Meters
- Minimum Depth In Meters
- Record Number
- Sample Depth (m)
- Ship Speed (m/s)
- Start Date
- Local Station ID

IDENTIFICATION

- Class
- Family
- Order
- Phylum
- Taxon
- Vernacular Name

RECOMMENDED

- Bottom Depth (m)
- Decimal Latitude
- Decimal Longitude
- Station Name

STORAGE

- Fixative
- Storage temp

DESCRIPTION

- Colour
- Description
- Filtered volume (mL)
- Sample volume (mL)
- Smell

EXPERIMENT

- Incubation Temperature (C)

ICE

- Ice Chl A (mg/m³)
- Sea Ice Core Length (cm)
- Sea Ice Core Maximum Depth (cm)
- Sea Ice Core Minimum Depth (cm)
- Sea Ice Core Temperature (C)
- Sea Ice Core Type
- Ice delta-O-18 (1e-3)
- Sea Ice Freeboard (cm)
- Sea Ice Meltpond Salinity (1e-3)
- Sea Ice Meltpond Temperature (C)
- Ice Phaeo (mg/m³)
- Sea Ice Thickness (cm)
- Ice DIC (umol/kg)

Event Date [eventDate]

Validation info:

Can be from 2000-01-01 to today +2 days.

Darwin core info (validation takes precedence for formatting):

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. Recommended best practice is to use an encoding scheme, such as ISO 8601:2004(E).

Examples: "1963-03-08T14:07-0600" is 8 Mar 1963 2:07pm in the time zone six hours earlier than UTC, "2009-02-20T08:40Z" is 20 Feb 2009 8:40am UTC, "1809-02-12" is 12 Feb 1809, "1906-06" is Jun 1906, "1971" is just that year, "2007-03-01T13:00:00Z/2008-05-11T15:30:00Z" is the interval between 1 Mar 2007 1pm UTC and 11 May 2008 3:30pm UTC, "2007-11-13/15" is the interval between 13 Nov 2007 and 15 Nov 2007.

Coming soon...

Template generator v2

Planning Collection

... Learnings from Nansen Legacy logging system

Configuration:

Different configurations

Required and recommended fields if also using the Nansen Legacy logging system onboard a vessel.

Required

- ID ...
- Parent ID ...
- Event Date (UTC) ...
- Event Time (UTC) ...
- Decimal Latitude ...
- Decimal Longitude ...
- Station Name ...
- Minimum depth (m) ...
- Maximum depth (m) ...
- Recorded By (Name) ...
- Recorded By (Email) ...
- PI name ...
- PI email ...

Recommended

- Recorded By (OrCID) ...
- Recorded By (Institution) ...
- PI institution ...
- PI OrCID ...
- Sample Location ...
- Gear Type ...
- Sampling protocol document ...
- Sampling protocol section ...
- Sampling protocol version ...
- Comments ...

Add more fields

Add CF standard names

mass_concentration_of_chlorophyllide_a_in_sea_water ...

sea_water_absolute_salinity ...

sea_water_temperature ...

Add Darwin Core terms

Generate

Coming soon...

Template generator v2

Planning Collection

The screenshot shows a spreadsheet application interface. The top bar includes a formula bar with 'fx' and a dropdown menu. The spreadsheet grid has columns labeled O through V and rows numbered 1 through 25. The following table represents the data in the spreadsheet:

	O	P	Q	R	S	T	U	V	
1									
2	PI institution	PI OrcID	Gear Type	Comments	mass_concentration_of_chlorophyllide_a_in_sea_water	sea_water_absolute_salinity	sea_water_temperature		
4									
5									
6									
7									
8									
9		sea_water_temperature Sea water temperature is the in situ temperature of the sea water. To specify the depth at which the temperature applies use a vertical coordinate variable or scalar coordinate variable. There are standard names for sea_surface_tempera							
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

The bottom of the spreadsheet shows a navigation bar with icons for back, forward, and search, and tabs for 'Variables', 'Metadata', 'Data', 'Conversion', and 'README'.

Coming soon...

Template generator v2

Planning Collection

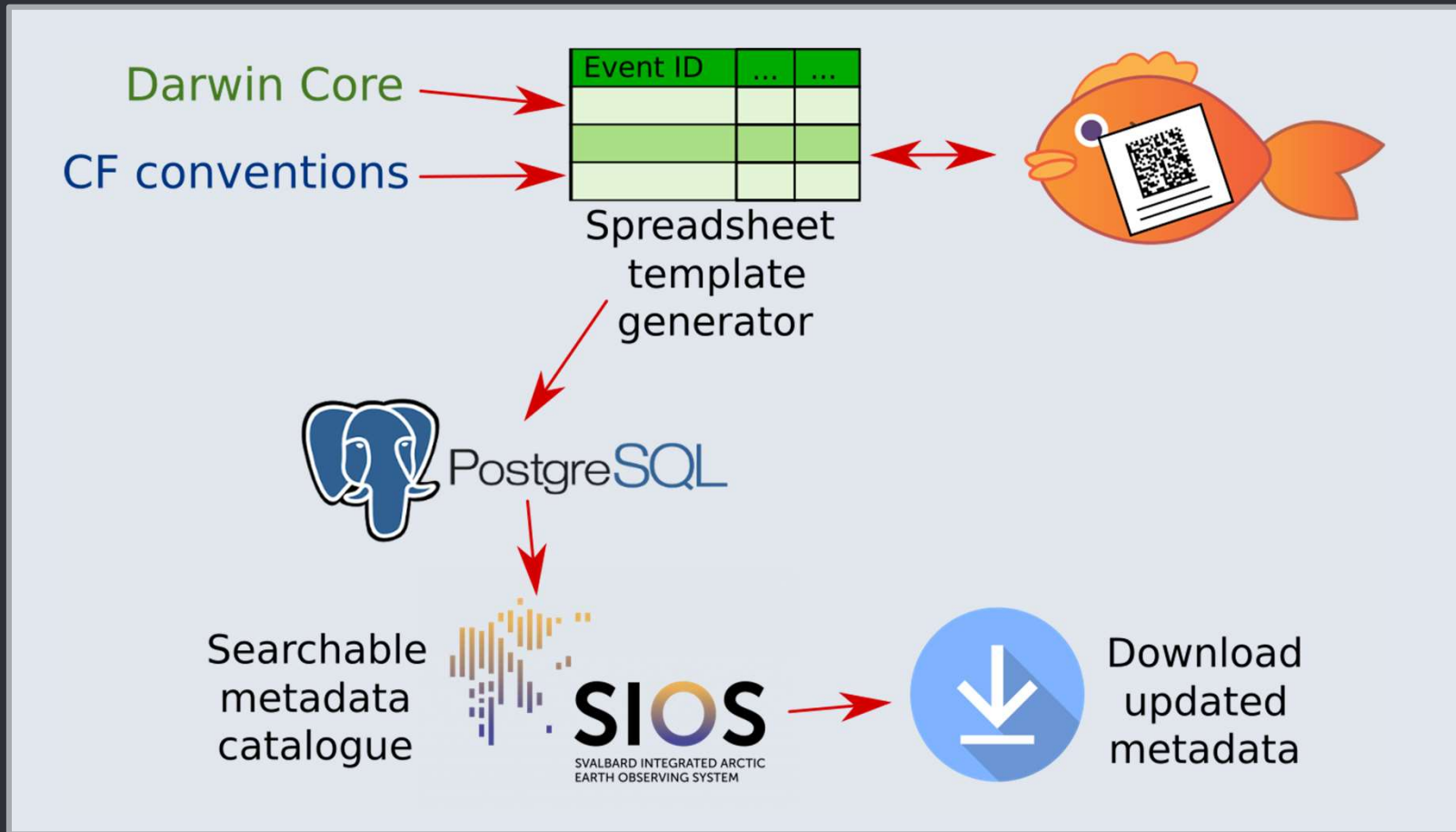
Field name	Content	ACDD term	ACDD description	EML term
Dataset ID		id	An identifier for the data set, provided by and unique within its naming authority. The combination of the 'naming authority' and the 'id' should be globally unique, but the id can be globally unique by itself also. IDs can be URLs, URNs, DOIs, meaningful text strings, a local key, or any other unique string of characters. The id should not include white space characters.	alternate
Naming Authority		naming_authority	The organization that provides the initial id (see above) for the dataset. The naming authority should be uniquely specified by this attribute. We recommend using reverse-DNS naming for the naming authority; URIs are also acceptable. Example: 'edu.ucar.unidata'.	
Language				language
Title		title	A short phrase or sentence describing the dataset. In many discovery systems, the title will be displayed in the results list from a search, and therefore should be human readable and reasonable to display in a list of such names. This attribute is also recommended by the NetCDF Users Guide and the CF conventions.	title



Metadata catalogue

<https://sios-svalbard.org/aen/tools>

Planning
Collection



Metadata catalogue

<https://sios-svalbard.org/aen/tools>

Planning Collection

Home About SIOS Services Data Research Infrastructure (RI) Intranet

Fulltext search

Start date mm/dd/yyyy End date mm/dd/yyyy

Cruise number

Sample depth in meters

Is equal to

Enter sample depth here, and choose operator

Enter upper or lower sample depth to search on using the operators.

Search

Station name

Choose

Person of interest

- Gunnar Bratbak (16415)
- Marit Reigstad (7707)
- Agneta Fransson (7561)
- Oliver Müller (7233)
- Melissa Chierici (6492)
- Sissel Jentoft (5335)
- Murat Van Ardelan (3747)
- Rolf Gradinger (3628)
- Anna Vader (3571)
- Miriam Marquardt (2888)

Show more

"Under development" Latest cruises and events updated October 20, 2022.

Welcome to Nansen Legacy Tools


Use the search form to the left do regular search with keywords and dates. You can narrow the search by selecting the different filters on the left and right side, like Gear Type, Sampletype, Institution etc. You can also select a station from the map below to find all events for a specific location/station.

Nansen Legacy Documents

- Sampling Protocol (v1)
- Sampling Protocol (v2)
- Sampling Protocol (v3)
- Sampling Protocol (v4.2)
- Sampling Protocol (v5)
- Sampling Protocol (v6)
- Sampling Protocol (v7)
- Sampling Protocol (v8)
- Sampling Protocol (v9)

Search stations / locations

List all stations as a table



Excel Template Generator

Metadata Retrieval Tool

Create Event Core and Extensions

Links

- Nansen Legacy Tools
- Sample search
- Stations search

Cruise name

- 2022 JC3 Closing the Gaps'
- 2021 Winter Process Cruise
- 2021 Seasonal Study Q2
- 2021 Seasonal Study Q1
- 2021 Joint Cruise 2-2
- 2021 Joint Cruise 2-1
- 2021 A-Twain
- 2020 Mooring Service Cruise
- 2019 Technology Test Cruise
- 2019 Seasonal Study Q4

Show more

Gear Type

- CTD w/bottles
- Box corer
- Ice corer 9 cm
- Campelen trawl
- Gravity corer
- Sediment trap (short term)
- GO-FLO
- MIK-net 1500 um
- WP3 1000 um
- Multicorer

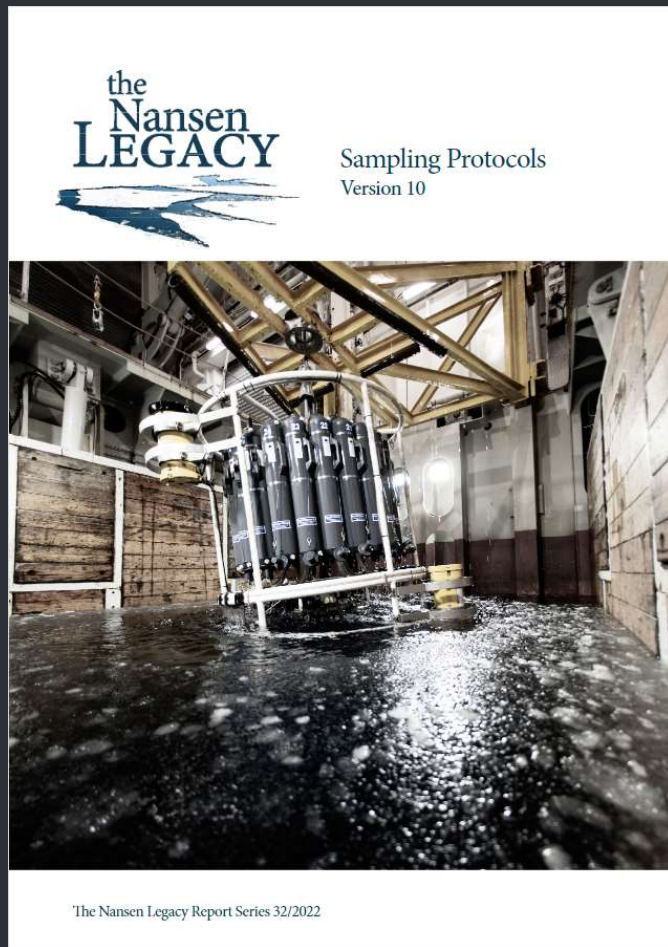
Show more

Sample type



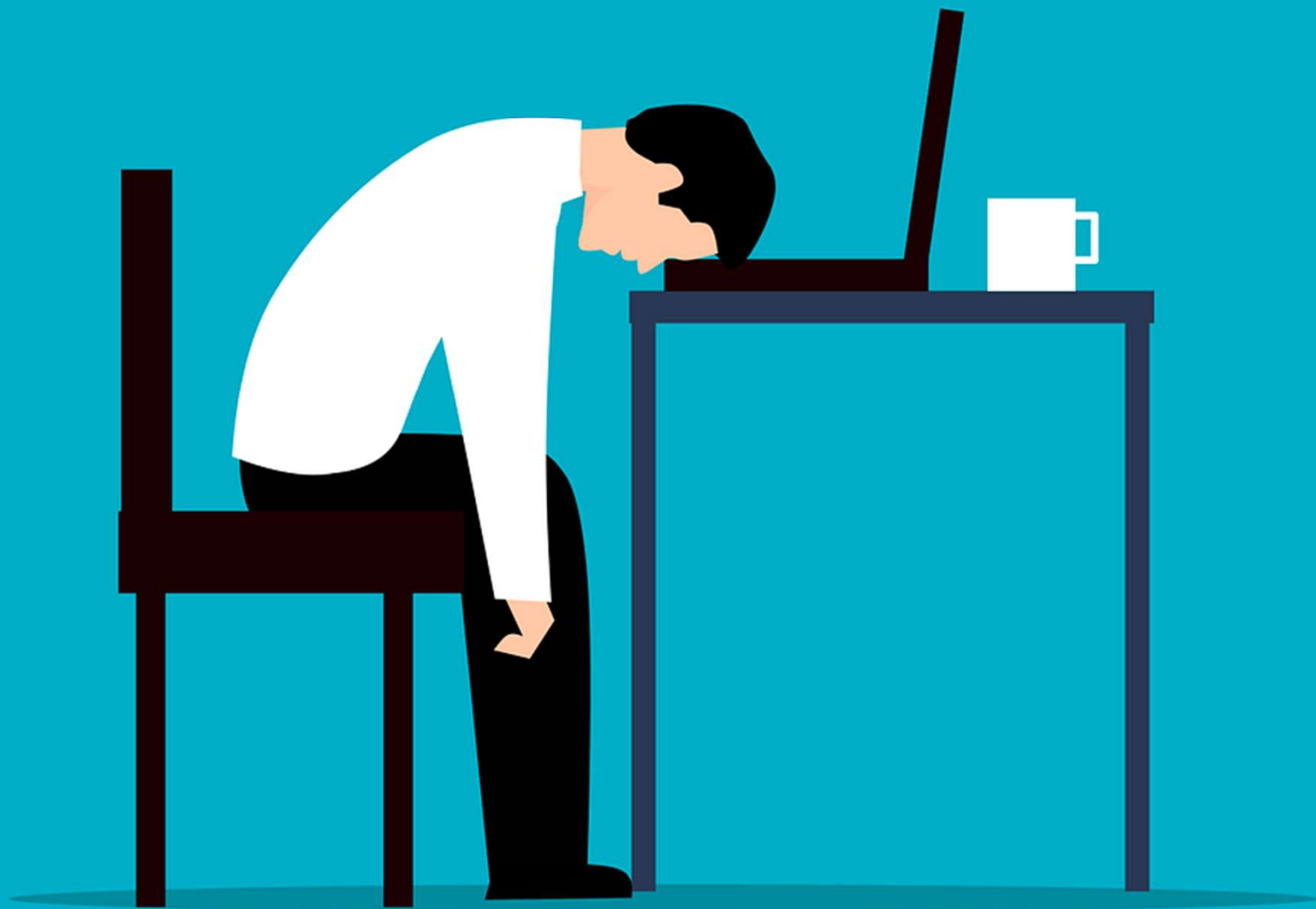
Sampling protocols

Planning
Collection



<https://doi.org/10.7557/nlrs.6684>

- How to collect data
- Consistency between cruises/people



Help publishing your data

- YouTube <https://www.youtube.com/@LukeDataManager>
<https://twitter.com/LukeDataManager>
- Scripts https://github.com/lhmarsden/NetCDF-CF_workshops

Take homes



- Sampling protocols: <https://doi.org/10.7557/nlrs.6684>
- Data policy: <https://doi.org/10.7557/nlrs.5799>
- Data management plan: <https://doi.org/10.7557/nlrs.5800>
- Template generator: <https://sios-svalbard.org/cgi-bin/darwinsheet/?setup=aen>
- YouTube: <https://www.youtube.com/@LukeDataManager>
- Scripts: https://github.com/lhmarsden/NetCDF-CF_workshops
- Use our data: https://sios-svalbard.org/metsis/search?f%5B0%5D=collection%3AAeN&f%5B1%5D=dataset_level%3Alevel-1