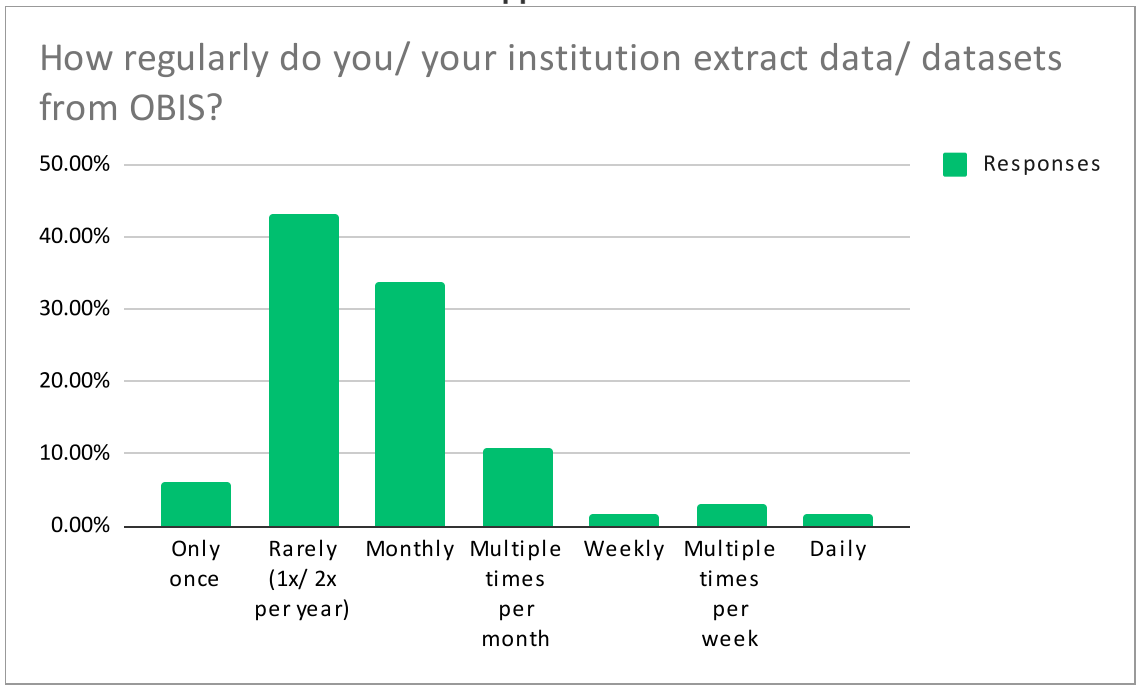
OBIS user survey

How regularly do you/ your institution extract data/ datasets from OBIS?

Answer Choices	Responses	
Only once	6.15%	4
Rarely (1x/ 2x per year)	43.08%	28
Monthly	33.85%	22
Multiple times per month	10.77%	7
Weekly	1.54%	1
Multiple times per week	3.08%	2
Daily	1.54%	1
Never (please provide a reason):		5
	Answered	**65**
	Skipped	**6**



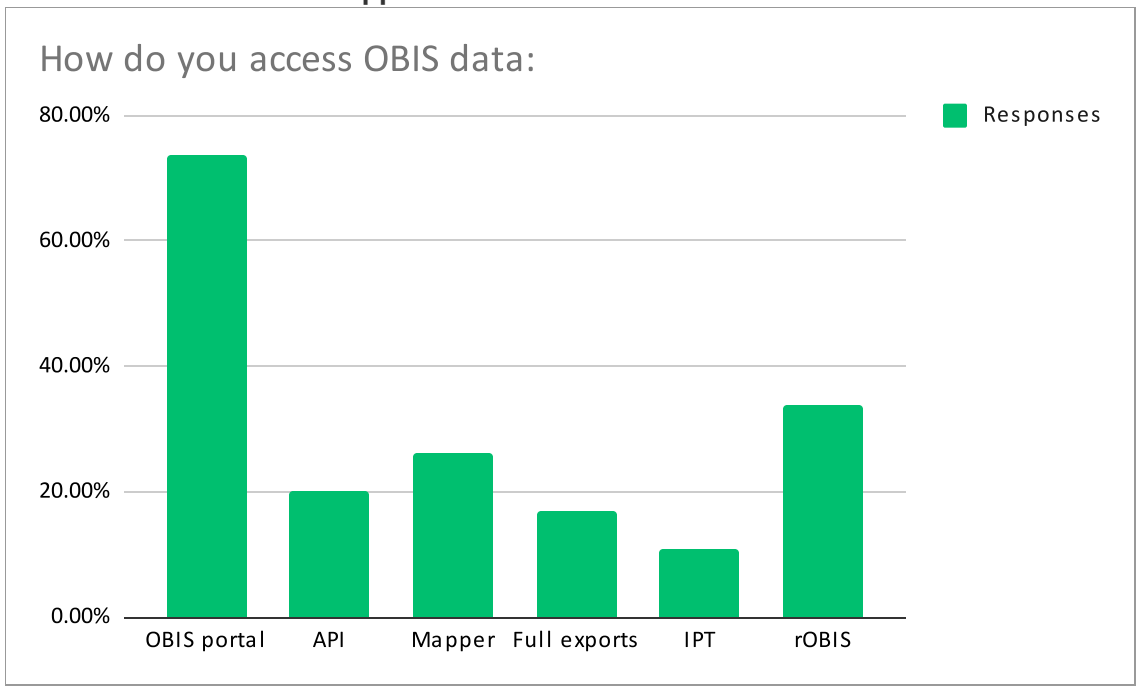
Respondent ID	Response Date	Never (please provide a reason):	Tags
118122441666	Sep 08 2022	We used the data that OBIS provided to Aquamaps in our recent publication, so I perso	
118120901471	Sep 06 2022	did not know about its existence	
118118536609	Sep 02 2022	We are not using the data as such	
118107242407	Aug 19 2022	did not see a need	
118088167334	Jul 27 2022 0	Eu nao quero ter o Twiter e gostaria de acessar de outro modo	

nally did not download and curate this data.

OBIS user survey

How do you access OBIS data:

Answer Choices	Responses	
OBIS portal	73.85%	48
API	20.00%	13
Mapper	26.15%	17
Full exports	16.92%	11
IPT	10.77%	7
rOBIS	33.85%	22
Other (please specify)		8
	Answered	**65**
	Skipped	**6**

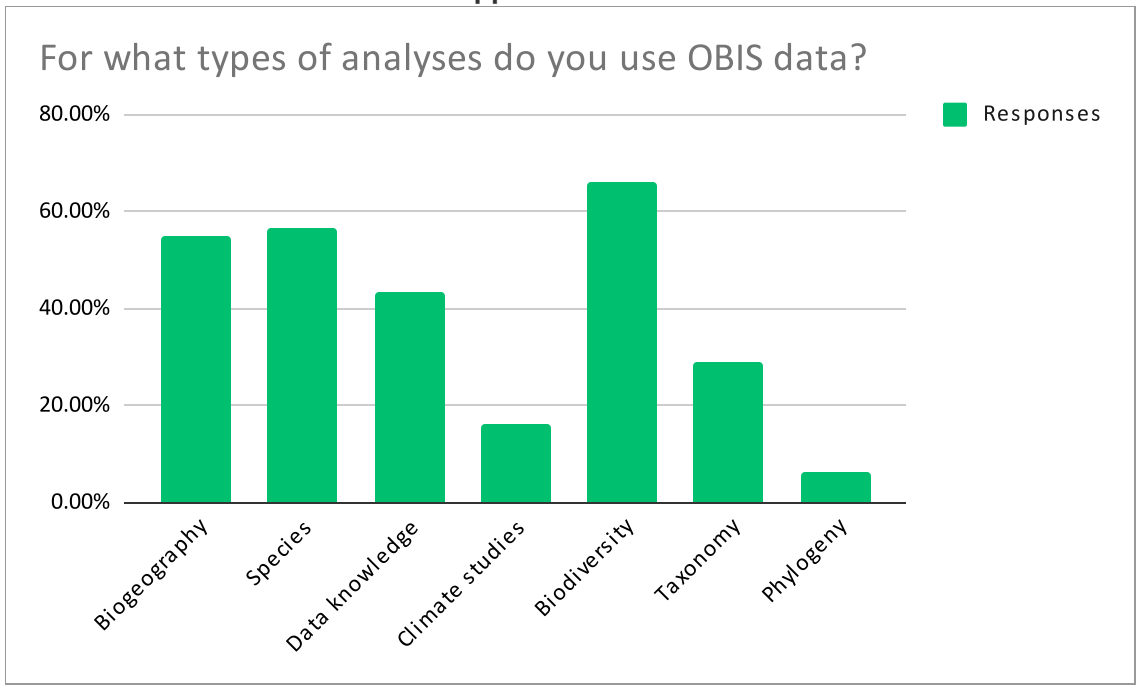


Respondent ID	Response Date	Other (please specify)	Tags
118122441666	Sep 08 2022	As above, we used a product from OBIS that had already been QC by the team at Aquamaps.	
118121826385	Sep 07 2022	I have trialed access from S3 storage using Apache Arrow	
118121761207	Sep 07 2022	pyOBIS	
118121303802	Sep 07 2022	I wish to use API but haven't done so yet	
118120901471	Sep 06 2022	see above	
118118536609	Sep 02 2022	Not relevant	
118107242407	Aug 19 2022	see 1	
118088167334	Jul 27 2022 0	Nao acesso, mas gostaria de acessar	

OBIS user survey

For what types of analyses do you use OBIS data?

Answer Choices	Responses	
Biogeography	54.84%	34
Species distribution modelling	56.45%	35
Data knowledge gap	43.55%	27
Climate studies	16.13%	10
Biodiversity	66.13%	41
Taxonomy	29.03%	18
Phylogeny	6.45%	4
Other (please specify)		10
	Answered	**62**
	Skipped	**9**

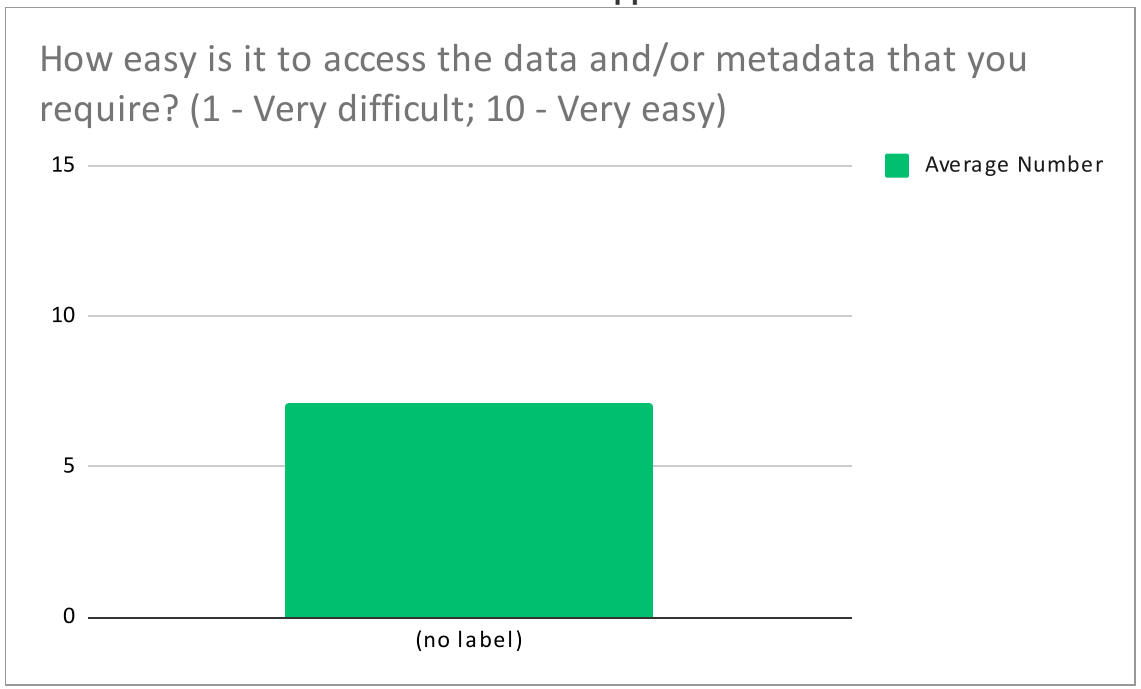


Respondent ID	Response Date	Other (please specify)	Tags
118124495210	Sep 11 2022 (	Indicator development	
118120901471	Sep 06 2022 (	see above	
118120819483	Sep 06 2022 (	species distribution (not modelling)	
118118536609	Sep 02 2022 (	Not relevant	
118116385178	Aug 31 2022	mapping	
118107242407	Aug 19 2022	see 1	
118091733444	Aug 01 2022 (	Conservation studies	
118088167334	Jul 27 2022 0	Gostaria de acessar para estudos climáticos e biodiversidade	
118087050518	Jul 26 2022 0	Data management	
118083359070	Jul 21 2022 0	Depths	

OBIS user survey

How easy is it to access the data and/or metadata that you require? (1 - Very difficult; 10 - Very easy)

Answer Choices	Average Numbe	Total Number	Responses	
(no label)	7.114754098	434	100.00%	61
			Answered	**61**
			Skipped	**10**



Respondent ID	Response Date	Tags
118131044065	Sep 20 2022 0	5
118130809231	Sep 20 2022 0	7
118125931290	Sep 13 2022 0	10
118125495431	Sep 13 2022 0	3
118125200494	Sep 12 2022 0	7

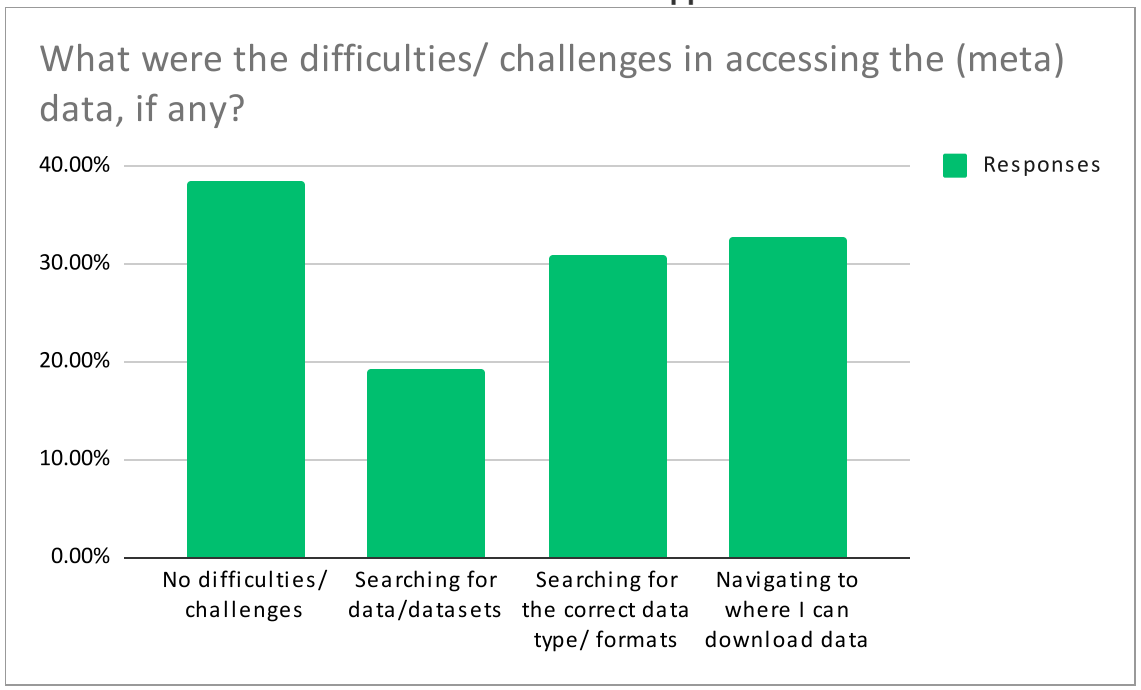
118124956902	Sep 12 2022 0	7
118124937931	Sep 12 2022 0	8
118124854753	Sep 12 2022 1	8
118124671259	Sep 12 2022 0	4
118124495210	Sep 11 2022 0	4
118123468648	Sep 09 2022 0	9
118122914190	Sep 08 2022 0	8
118122676185	Sep 08 2022 0	9
118122666356	Sep 08 2022 0	7
118122441666	Sep 08 2022 1	1
118122088514	Sep 07 2022 1	10
118121826385	Sep 07 2022 0	8
118121798885	Sep 07 2022 0	8
118121761207	Sep 07 2022 0	4
118121759421	Sep 07 2022 0	9
118121747602	Sep 07 2022 0	8
118121730027	Sep 07 2022 0	9
118121327770	Sep 07 2022 0	10
118121303802	Sep 07 2022 0	2
118121230360	Sep 07 2022 1	8
118121112781	Sep 06 2022 0	5
118121082293	Sep 06 2022 0	8
118121023256	Sep 06 2022 0	7
118120870270	Sep 06 2022 0	2
118120840226	Sep 06 2022 0	10
118120819483	Sep 06 2022 0	5
118120813071	Sep 06 2022 0	10
118120692706	Sep 06 2022 0	5
118120408009	Sep 06 2022 1	6

118119788943	Sep 05 2022 0	8
118119786399	Sep 05 2022 0	9
118118508750	Sep 02 2022 1	9
118116943977	Aug 31 2022 0	10
118116385178	Aug 31 2022 1	7
118111943918	Aug 25 2022 0	4
118106847383	Aug 19 2022 0	5
118106154274	Aug 18 2022 0	8
118105871358	Aug 18 2022 0	6
118095766643	Aug 05 2022 0	10
118091733444	Aug 01 2022 0	7
118088205842	Jul 27 2022 09	8
118087050518	Jul 26 2022 04	7
118086652359	Jul 26 2022 03	8
118086129891	Jul 25 2022 04	9
118085840245	Jul 25 2022 09	1
118084622956	Jul 22 2022 08	9
118084373793	Jul 22 2022 03	10
118083963042	Jul 22 2022 08	6
118083980105	Jul 22 2022 03	7
118083359070	Jul 21 2022 02	10
118083351224	Jul 21 2022 02	9
118083335642	Jul 21 2022 01	10
118083328924	Jul 21 2022 01	9
118083239933	Jul 21 2022 11	8
118082609288	Jul 20 2022 05	8
118073719937	Jul 08 2022 01	1

OBIS user survey

What were the difficulties/ challenges in accessing the (meta)data, if any?

Answer Choices	Responses	
No difficulties/ challenges	38.46%	20
Searching for data/datasets	19.23%	10
Searching for the correct data type/ formats	30.77%	16
Navigating to where I can download data	32.69%	17
Other (please specify):		12
	Answered	**52**
	Skipped	**19**



Respondent ID	Response Date	Other (please specify):	Tags
118124956902	Sep 12 2022	downloading many records from the R app is slow	

118124495210	Sep 11 2022 (	Extracting data from complex geographic areas (polygons/shapes); understa
118122441666	Sep 08 2022	For question 4 I put 0, because we used a derived product it is then challengi
118121826385	Sep 07 2022 (	Accessing data is straightforward. Accessing associated metadata can be mo
118121761207	Sep 07 2022 (	navigating MoF data
118121303802	Sep 07 2022 (	finding the original data source so I could check the taxonomic IDs was impos
118120870270	Sep 06 2022 (	The search field disappears afer the first use; one has to go bacl to the FIRS
118120819483	Sep 06 2022 (	determining duplicate dataset
118118536609	Sep 02 2022 (	Not relevant
118106847383	Aug 19 2022 (	Was looking at jellyfish and they come in multiple entries
118088167334	Jul 27 2022 0	não se aplica
118085840245	Jul 25 2022 0	Inspecting and getting useful data from individual datapoints

ıding the full flexibility of EMoF for EOV subvariables
ng to reconstruct the metadata. This also means that this question perhaps doesn´t apply to our use case.
›re challenging.

ssible in most cases
Γ page every time.

OBIS user survey

Please elaborate on the difficulties/ challenges in accessing the (meta)data.

Answered **26**

Skipped **45**

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	No way to get yearly data before 1900. Sometimes is hard to find the data. Many times there are records of which I doubt very much. I have a relatively good idea of what has been collecte	
11812549543	Sep 13 2022	Deepwater records are hard to find, especially with depth of collection.	
11812520049	Sep 12 2022	just lack of experience from my side, really.	
11812485475	Sep 12 2022	Originally the full export wasn't working and downloading the full dataset in R was very computationally challengir Depth zones Ocean regions	
11812467125	Sep 12 2022	Taxonomic integrity of data It has been a long-standing issue and discussion to provide OBIS with complex polygons or multiple complex pol Also, not clear yet how to develop all needed fields for complete description of EMoF for new subvariables (such a	
11812449521	Sep 11 2022	Inability or lack of plans to store image data (even with the explosion in imaging devices/imaging flow cytometers,	
11812291419	Sep 08 2022	Difficult to access to the right data needed	
11812266635	Sep 08 2022	It seems without using the R package, it is hard to find where to download the formatted data. It is also difficult to	
11812182638	Sep 07 2022	Sometimes the metadata does not (yet) exist - e.g. I would like event-level metadata on sampling methodology ar	
11812176120	Sep 07 2022	MoFs are not well documented and usage is highly non-standard.	
11812175942	Sep 07 2022	it would be useful to be able to filter datasets by broad sampling method, eg fishery research trawl, quadrat, track	
11812173002	Sep 07 2022	It was difficult to find the metadata for the datasets in OBIS.	
11812130380	Sep 07 2022	Data sources were often just links to an Institutional webpage that no longer exists or email addresses of people v	
11812108229	Sep 06 2022	Difficulties in connecting to the IPT platform. Difficulty remembering the metadata identifiers and equivalence with	
11812102325	Sep 06 2022	Since I use OBIS only twice a year, I have to relearn access methods. Typical use is taxonomic update of old ben	
11812087027	Sep 06 2022	See previous page	
11811978639	Sep 05 2022	The map	

11811850875	Sep 02 2022	This is no longer a challenge now that I am familiar with the OBIS
11811194391	Aug 25 2022	finding out right data set is the real challenge
11810587135	Aug 18 2022	I am not so experience in searching in databases. Hence, I ofte need specific help to maneuvre
11809173344	Aug 01 2022	I am finding it difficult to access data (in excel format) for specific countries, so we can understand species distribu
11808820584	Jul 27 2022 0	It was not very clear I had to go download the dataset
11808816733	Jul 27 2022 0	não quero ter o Twiter
11808705051	Jul 26 2022 0	It took me some time to understand how everything works. Once I understood, no more problem
11808584024	Jul 25 2022 0	Compared to GBIF where you zoom in on a point on the species map then hit "explore area" to see all the points
11808398010	Jul 22 2022 0	The metadata of dataset, such as abstract, is not detailed enough, and not in Standard format. I hope that obis ca

d and publish from Costa Rica, but in the data base there are many many more records.

ıg and time consuming

ygons.

as area cover assessments, polygons)

remote sensing data)

filter for data that have the same variables outside presence/absence.
ıd this is hard to find.

ing of individual animal, transect; especially to enable estimation of species richness qualified by the same sampling method a

who had retired or died so it was impossible to verify quality.
the names used specifically in the projects, due to the fact that several fields have similar uses.
thic species lists with NOAA-NODC codes done with WORMS & Obis for biogeographic confirmation.

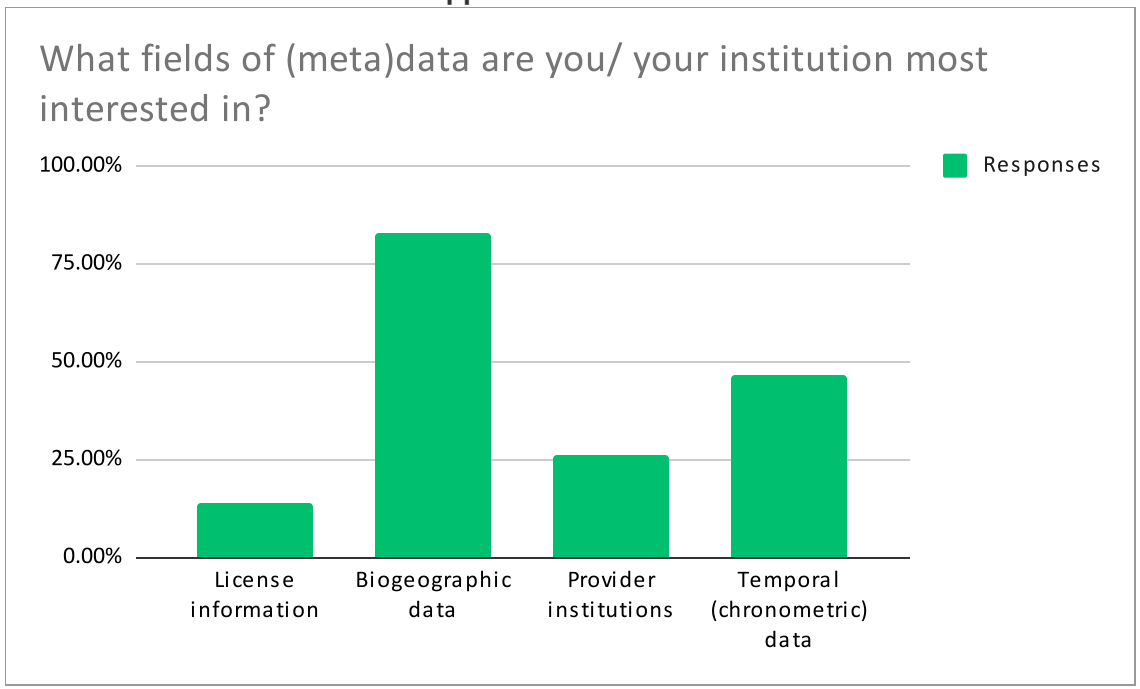
ution and formulate conservation policies

data to get to the same point in OBIS requires 2-3 times as many steps then when you finally manouver the cursor over the cc
ın add survey methods of each dataset to metadata.

OBIS user survey

What fields of (meta)data are you/ your institution most interested in?

Answer Choices	Responses	
License information	13.79%	8
Biogeographic data	82.76%	48
Provider institutions	25.86%	15
Temporal (chronometric) data	46.55%	27
Other (please specify)		8
	Answered	**58**
	Skipped	**13**



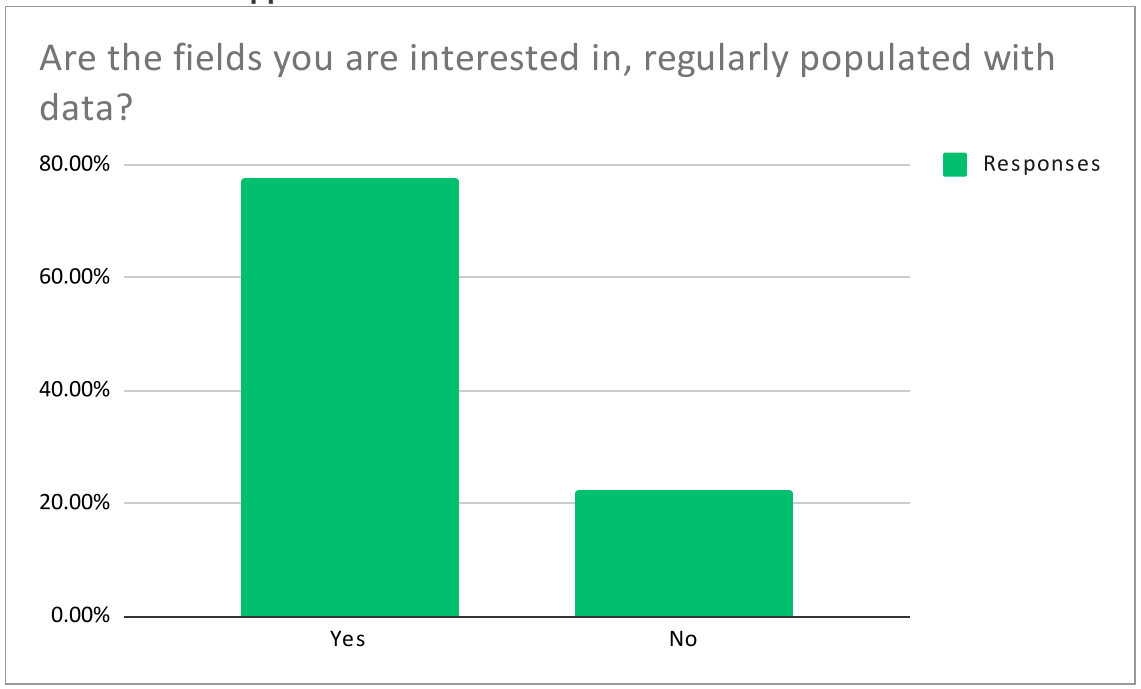
Respondent ID	Response Date	Other (please specify)	Tags
118124937931	Sep 12 2022	Data collection methods employed	

118124495210	Sep 11 2022 (	Complex polygons (input, output), images (remote or in situ cameras/sensors)
118122088514	Sep 07 2022	depth
118121826385	Sep 07 2022 (	Associated environmental data, sampling protocols
118088167334	Jul 27 2022 0	Sou aposentado, mas continuo trabalhando e quero acessar de casa
118087050518	Jul 26 2022 0	Data management
118086652359	Jul 26 2022 0	citation
118084373793	Jul 22 2022 0	Citation; Sampling device/unit/effort; Environmental data at sampling/record

OBIS user survey

Are the fields you are interested in, regularly populated with data?

Answer Choices	Responses	
Yes	77.59%	45
No	22.41%	13
	Answered	**58**
	Skipped	**13**



OBIS user survey

Which of these fields of interest to you, are lacking information?

Answered **11**

Skipped **60**

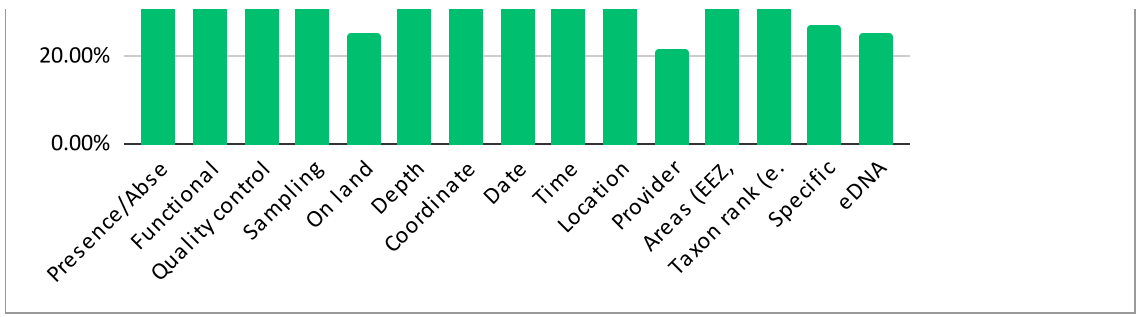
Respondent ID	Response Date	Responses	Tags
11812493793	Sep 12 2022	Methods used for data collection are not often reported. Updated taxonomic status Sieve size fraction in the case of benthos Depth zone	
11812467125	Sep 12 2022		
11812208851	Sep 07 2022	depth is often missing, temporal information is sometimes lacking, or seems not to be correct Selection data by the biogeographic realms classified using OBIS data in Costello et al. Nature Communications.	
11812175942	Sep 07 2022	Selection data by broad habitat and depth zones - intertidal, subtidal, sediment, epibiota, visual census, water/pel	
11812173002	Sep 07 2022	Not so many data for Marine invertebrates of Chile	
11812081307	Sep 06 2022	Temporal variations in the planktonic community from the Southern Caribbean	
11811694397	Aug 31 2022	Dataset name and providers	
11810587135	Aug 18 2022	Zoo plankton distribution	
11808816733	Jul 27 2022 0	prejudicado	
11808437379	Jul 22 2022 0	Citation; Sampling device/unit/effort; Environmental data at sampling/record	
11808333564	Jul 21 2022 0	Dates,	

agos samples, etc.

OBIS user survey

Which filtering options do you feel are important or should be added?

Answer Choices	Responses	
Presence/Absence	63.64%	35
Functional groups	40.00%	22
Quality control flags	50.91%	28
Sampling protocol	52.73%	29
On land (exclude)	25.45%	14
Depth	67.27%	37
Coordinate uncertainty	36.36%	20
Date	54.55%	30
Time	38.18%	21
Location	63.64%	35
Provider country	21.82%	12
Areas (EEZ, ABNJ, IHO, etc)	34.55%	19
Taxon rank (e.g. species only)	49.09%	27
Specific measurement	27.27%	15
eDNA	25.45%	14
Other (please specify)		7
	Answered	**55**
	Skipped	**16**



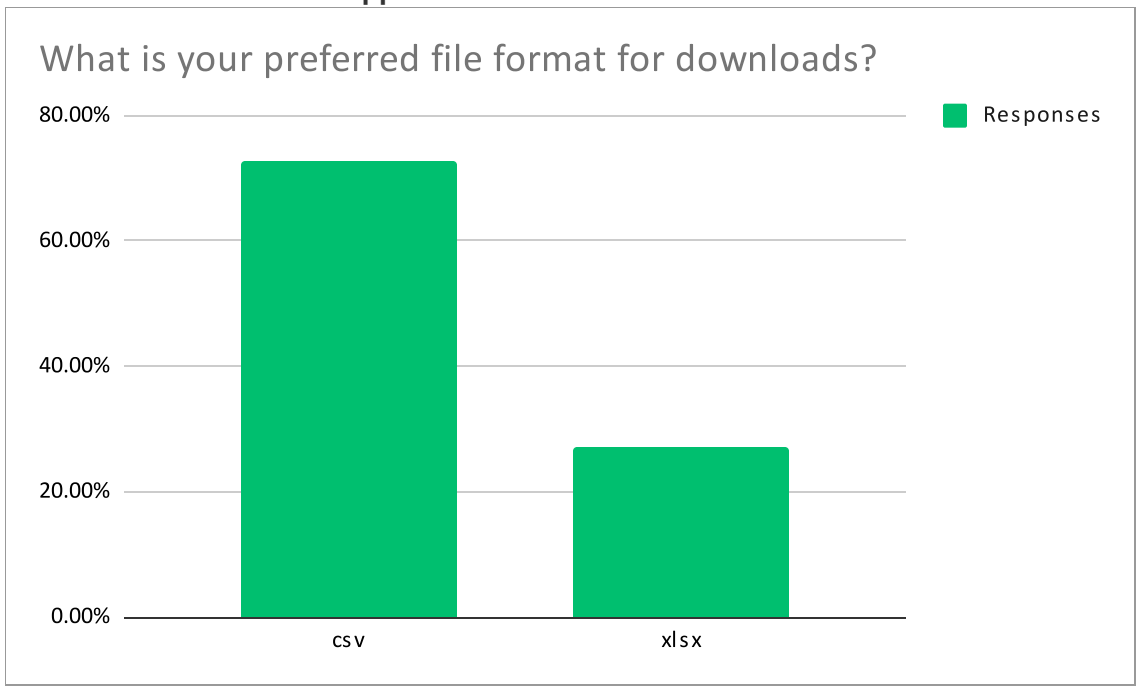
Respondent ID	Response Date	Other (please specify)	Tags
118124956902	Sep 12 2022 (	GBIF ID	
118124937931	Sep 12 2022 (	All these options are really important. I would love to see other areas listed, for example, Marine	
118124671259	Sep 12 2022 (	sieve size fraction pertenance; image and video if available	
118124495210	Sep 11 2022 (	Complex polygons; EOV nomenclature/labels such as subvariables	
118088167334	Jul 27 2022 0	prejudicado	
118086129891	Jul 25 2022 0	temporal uncertainty	
118083980105	Jul 22 2022 0	Number of sample events of each grid cell	

e Ecoregions of the World and perhaps others.

OBIS user survey

What is your preferred file format for downloads?

Answer Choices	Responses	
csv	72.73%	40
xlsx	27.27%	15
Other (please specify)		5
	Answered	**55**
	Skipped	**16**



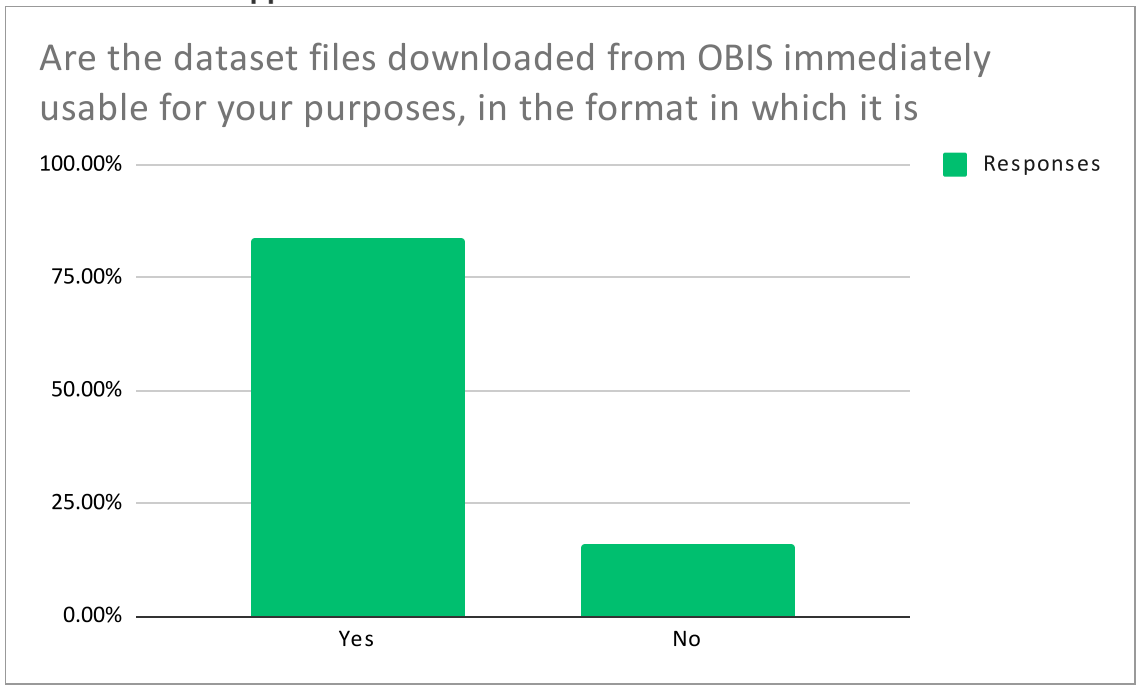
Respondent ID	Response Date	Other (please specify)	Tags
118124671259	Sep 12 2022 (	both, it actually depends on the use	
118124495210	Sep 11 2022 (	Doesn't matter; add ERDDAP capability	
118120870270	Sep 06 2022 (	I copy by hand	

118088167334	Jul 27 2022 0	prejudicado
118086652359	Jul 26 2022 0	DwCA

OBIS user survey

Are the dataset files downloaded from OBIS immediately usable for your purposes, in the format in which it is downloa

Answer Choices	Responses	
Yes	83.93%	47
No	16.07%	9
	Answered	**56**
	Skipped	**15**



aded?

OBIS user survey

Please explain how the downloaded files are handled to become usable

Answered 7

Skipped 64

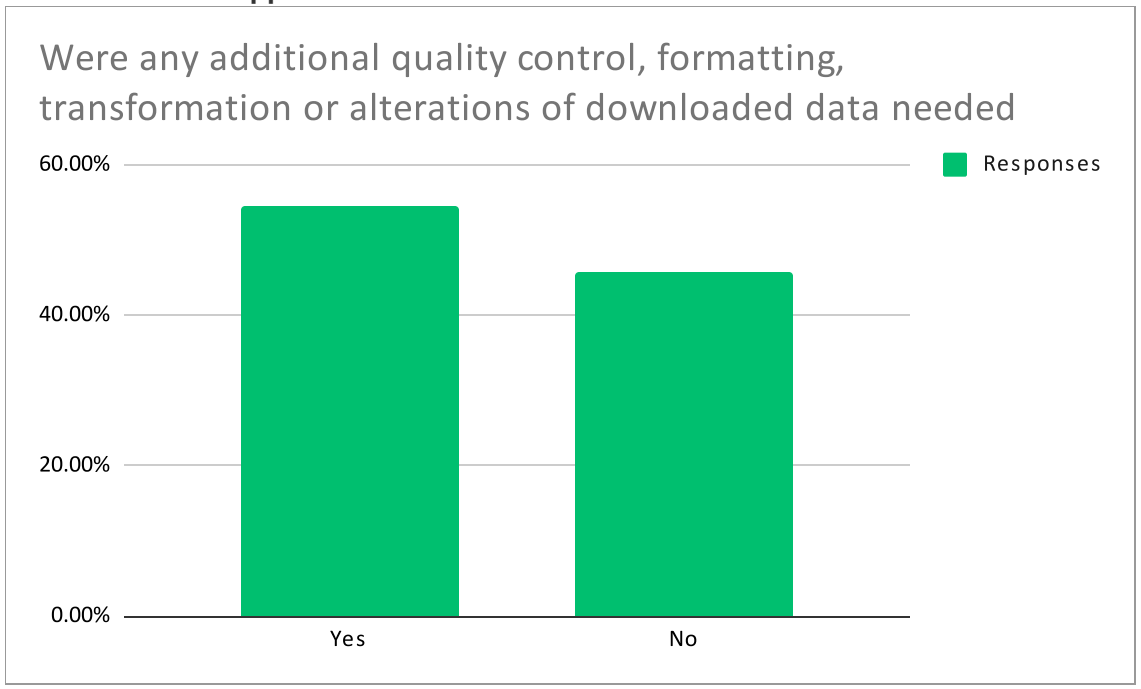
Respondent ID	Response Date	Responses	Tags
11812485475	Sep 12 2022	Often the data files don't have the same column order/pre-amble and therefore automating processes is less strai in direct format transformed to presence and absence	
11812467125	Sep 12 2022	transformed for statistical analysis	
11812291419	Sep 08 2022	The files I downloaded become usable before transformation in txt file	
11812081307	Sep 06 2022	I open the data in an excel document, then check the quality of the data.	
11811638517	Aug 31 2022	im just learning	
11808816733	Jul 27 2022 0	prejudicado	
11808398010	Jul 22 2022 0	it is good	

ghtforward than it could be. Also, is it often not clear what column one should be using, for example there appear to be multipl

OBIS user survey

Were any additional quality control, formatting, transformation or alterations of downloaded data needed before it cou

Answer Choices	Responses	
Yes	54.39%	31
No	45.61%	26
	Answered	**57**
	Skipped	**14**



ld be used?

OBIS user survey

Please elaborate on the additional quality control, formatting, transformation or alterations of downloaded data done befo

Answered 28

Skipped 43

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	Sometime data exist in the land due to error in data input. As I mentioned before there are records which may be incorrect.	
11812549543	Sep 13 2022		
11812485475	Sep 12 2022	Removing duplicates and merging columns of the same/similar variables are just two examples taxonomica updating based in newer taxonomic molecular work or most recent publications	
11812467125	Sep 12 2022	Need to interact with WoRMS	
11812449521	Sep 11 2022	Location may not be accurate, date missing	
11812346864	Sep 09 2022	In my experience all data needs to be quality controlled for research use. There are always small issues to deal w	
11812291419	Sep 08 2022	I compare the data with in situ data or another data source data Cleaning script including: filtering odd dates, basis of record, on land, then cleaning the taxonomy to ensure all na	
11812267618	Sep 08 2022	Overall though obis data needs less cleaning than other data sources.	
11812266635	Sep 08 2022	Filtering columns that were the same through different datasets. Some had more information, some had less so a	
11812244166	Sep 08 2022	We used derived products from Aquamaps as i suspected that some exclusion critieria would be needed. For exa	
11812208851	Sep 07 2022	We look for obvious errors in coordinates and georeferencing , as well as coordinates that have appear to have b	
11812182638	Sep 07 2022	Much of my work involves matching data from different sources. So there is often a lot of work with taxonomy / loc	
11812175942	Sep 07 2022	it seems prudent for users to recheck data is fit for purpose	
11812176120	Sep 07 2022	I have already reported issues elsewhere. Usually it is missing fields or malformed values.	
11812173002	Sep 07 2022	Filter and select data.	
11812132777	Sep 07 2022	Checks on geographic coordinates format mainly.	
11812130380	Sep 07 2022	multiple versions of DarwinCore and our downstream workflow is tied to only one of these formats	
11812108229	Sep 06 2022	Changes in date and time formats	
11812102325	Sep 06 2022	I generally run quick check for suspect geographic outliers	
11812081307	Sep 06 2022	A common error in data is using commas in cells, which causes problems with formatting. Other data do not have	

11812081948	Sep 06 2022	determination of duplication
11811194391	Aug 25 2022	good data
11810615427	Aug 18 2022	Sometimes coordinates seem to be flipped (ie, misplaces negative sign)
11808816733	Jul 27 2022	prejudicado
11808335122	Jul 21 2022	Points on land, wrong coordinates. Points that do not make sense should be restricted or flagged upon upload.
11808332892	Jul 21 2022	coordinate column extraction and human-observation-only selection
11808323993	Jul 21 2022	coordinate precision, coordinate on land (central point of country or location matching institution)
11808260928	Jul 20 2022	species name checks, a few location errors

›re it could be used

/ith. Given the range of analyses reformatting for specific analyses is also usually required.

ımes are updated (no synonyms) based on WoRMS. Removing or cleaning some fields that aren't as useful or show up odd (e

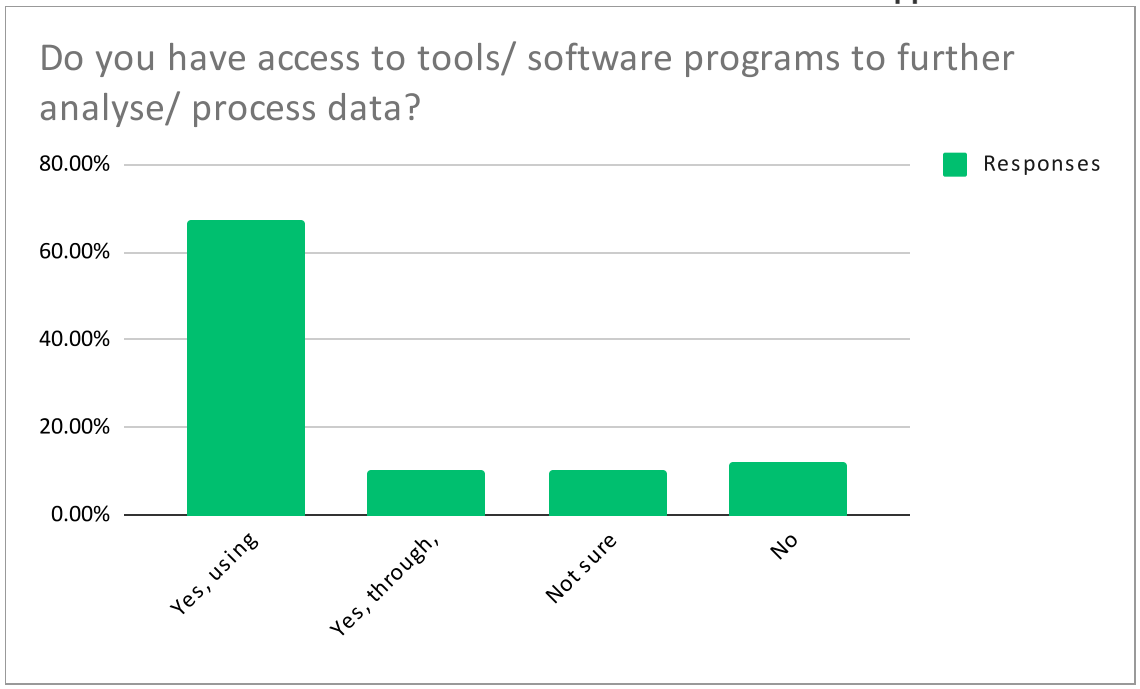
fter filtering, I could have erased a whole data set because they didn't match my minimum guidelines.
mple, we removed records that were fossils and also those at the extremes of species distributions as we suspected these to
›een assigned based on a general rather than a true location (e.g. locations in the geographic centre of some bay or region). W
:ation matching. Also additional QC (e.g. identifying points on land, or points where sample depth is >0 or sample depth is < b

information in specific fields of interest, so they must be eliminated.

OBIS user survey

Do you have access to tools/ software programs to further analyse/ process data?

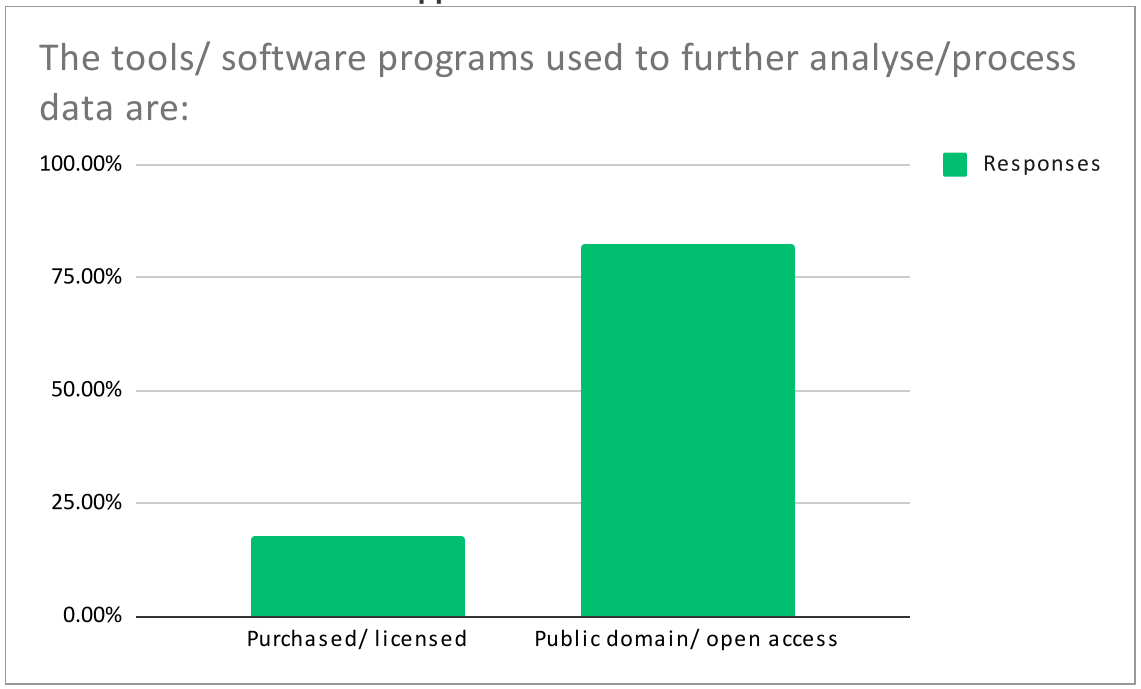
Answer Choices	Responses	
Yes, using software on my own desktop	67.24%	39
Yes, through, shared infrastructure (virtual research environments	10.34%	6
Not sure	10.34%	6
No	12.07%	7
	Answered	**58**
	Skipped	**13**



OBIS user survey

The tools/ software programs used to further analyse/process data are:

Answer Choices	Responses	
Purchased/ licensed	17.78%	8
Public domain/ open access	82.22%	37
	Answered	**45**
	Skipped	**26**



OBIS user survey

Please specify tools/ software programs being used

Answered **38**

Skipped **33**

Respondent ID	Response Date	Responses	Tags
11812593129	Sep 13 2022	R	
11812520049	Sep 12 2022	excel, primer, and several scientific graphic packages	
11812493793	Sep 12 2022	I mostly used R code for processing and analyzing OBIS records but also Matlab and QGIS, occasionally. I also u	
11812485475	Sep 12 2022	R and R Studio and Python	
11812467125	Sep 12 2022	Both they are purchased/licensed and open access	
11812346864	Sep 09 2022	a large range of tools, varying from R packages on desktop to online platforms for modelling using servers	
11812267618	Sep 08 2022	R, Rstudio, Python via Atom	
11812266635	Sep 08 2022	R and Rstudio mixed with GitHub	
11812208851	Sep 07 2022	I'm mostly using R but sometimes use other programs (anything from text editors to excel spreadsheets to ArcGIS	
11812182638	Sep 07 2022	R, almost exclusively	
11812179888	Sep 07 2022	my own python and R scripts	
11812175942	Sep 07 2022	R, Zonation, QGIS, ArcGIS	
11812176120	Sep 07 2022	python	
11812173002	Sep 07 2022	R studio	
11812130380	Sep 07 2022	Our own python scripts and API-server-based web browser interface. Also Excel or LibreOffice	
11812123036	Sep 07 2022	ESRI	
11812108229	Sep 06 2022	I actually use both types. Spreadsheet applications (MS Excel), R, OpenOffice, OpenRefine, data bases	
11812102325	Sep 06 2022	Generally use simple Python code.	
11812084022	Sep 06 2022	r studio	
11812081307	Sep 06 2022	Microsoft Office, RStudio, QGIS	
11811978639	Sep 05 2022	Mvsp, statistic	
11811850875	Sep 02 2022	R and Python	
11811694397	Aug 31 2022	Microsoft Office and ArcMap	

11811194391	Aug 25 2022	r studio
11810684738	Aug 19 2022	Matlab
11810615427	Aug 18 2022	R Excel
11808820584	Jul 27 2022 0	Qgis
11808705051	Jul 26 2022 0	R
11808665235	Jul 26 2022 0	R
11808612989	Jul 25 2022 0	python, R
11808462295	Jul 22 2022 0	R
11808437379	Jul 22 2022 0	R software
11808398010	Jul 22 2022 0	jupyter notebook R kernel
11808335122	Jul 21 2022 0	R
11808333564	Jul 21 2022 0	ArcGIS
11808332892	Jul 21 2022 0	D4Science e-Infrastructure and Virtual Research Environments
11808323993	Jul 21 2022 1	R
11808260928	Jul 20 2022 0	Primer7, Excel, InfoMap (open access)

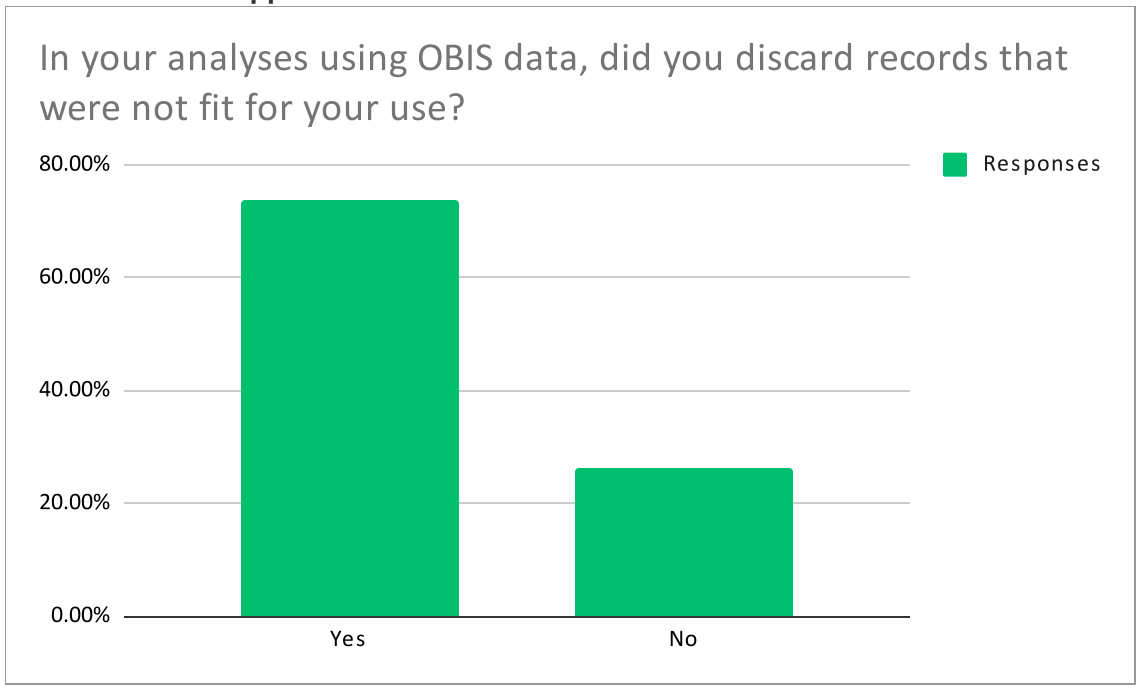
ıse resources hosted on Github repositories quite a bit.

ɜ)

OBIS user survey

In your analyses using OBIS data, did you discard records that were not fit for your use?

Answer Choices	Responses	
Yes	73.68%	42
No	26.32%	15
	Answered	**57**
	Skipped	**14**



OBIS user survey

What were the reasons for discarding these data?

Answered **36**

Skipped **35**

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	Data is located on land.	
11812549543	Sep 13 2022	I have doubts that they are correctly.	
11812520049	Sep 12 2022	not enough information to trust the source and authenticity of the information data with low confidence records without high enough taxonomic resolution	
11812495690	Sep 12 2022	dupliated records (same ID, coordinates, sample data and expedition)	
11812485475	Sep 12 2022	They were either duplicates, didn't have the required information (e.g. no depth recording) or the coordinates had not taxonomically updated not clear of which size fraction pertain	
11812467125	Sep 12 2022		
11812449521	Sep 11 2022	Depending on analysis, some records are not used	
11812346864	Sep 09 2022	incomplete data or uncertainty in data, true data but data that is representing invasive parts of the current distribu	
11812291419	Sep 08 2022	Some strange value in the data	
11812267618	Sep 08 2022	No year or year before study period, negative individual count, on land, basis of record == machine observation, I	
11812266635	Sep 08 2022	If it a dataset didn't have information in the columns of interest, I would discard. An example is not having quantity	
11812244166	Sep 08 2022	On land. We exclude records beyond 95th percentiles of longitude and latitute to be sure extreme observations di	
11812208851	Sep 07 2022	Errors were apparent/suspected or I did not sufficiently trust the data source.	
11812182638	Sep 07 2022	Various - e.g. excluding species with few records, excluding points on land, excluding records with no associated	
11812176120	Sep 07 2022	missing fields like depth	
11812175942	Sep 07 2022	questionable in some way - taxonomic, geographic, year sampled	
11812174760	Sep 07 2022	Low number of occurrence records	
11812173002	Sep 07 2022	For example, they didn’t correspond to my species of interest	
11812130380	Sep 07 2022	not sure if taxon name given to the records was actually accurate	
11812123036	Sep 07 2022	duplicates, uncertain taxon identifications	

11812108229	Sep 06 2022	They were simply not necessary for the objectives of the project
11812102325	Sep 06 2022	Geographic outliers suggest taxonomic error
11812087027	Sep 06 2022	Obviously wrong presence data. MANY !
11812081307	Sep 06 2022	Data with wrong coordinates, without coordinates, with some field of interest missing.
11812081948	Sep 06 2022	impossible locations, duplicate records
11811694397	Aug 31 2022	Duplicated records
11810684738	Aug 19 2022	They did not have the information I needed On land Discarded poorly sampled species
11810615427	Aug 18 2022	Obviously bad data
11808665235	Jul 26 2022 0	using QC flags
11808437379	Jul 22 2022 0	Duplicates; records above species level.
11808398010	Jul 22 2022 0	the survey methods and sample coverage
11808335122	Jul 21 2022 0	wrong coordinates, points on land, points missing information
11808333564	Jul 21 2022 0	Lack of dates falling on land
11808332892	Jul 21 2022 0	I only needed human observations at the sea certified by some expert
11808323993	Jul 21 2022 1	Data needed to be given a precise cell, so any data without sufficient precision in spatial coordinates were remov
11808260928	Jul 20 2022 0	outside of depth range of interest, records of taxa not specific enough

been rounded to a point where the geographic specificity was not applicable to the study

tion range

D above generic level, flagged on_land. I don't discard as much OBIS data as from other sources though!
ı of organism and is just presence/absence or having different ways to quantify an organism (i.e. individuals per cubic meter vs
d not bias our models.

sample depth data

ed to avoid analytical errors

OBIS user survey

Any other remarks, suggestions or comments on the current state and implementation of quality control and data access

Answered **25**

Skipped **46**

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	I think it is well done.	
11812549543	Sep 13 2022	Do more quality control as the source of the data.	
11812485475	Sep 12 2022	Updating the obis tools and robis packages in R with better/clearer documentation would be useful, particularly th 1. Nodes that are certified needed 2. Request best practices	
11812467125	Sep 12 2022	Congratulate for the important effort through this survey	
11812449521	Sep 11 2022	Thank you for your great efforts	
11812291419	Sep 08 2022	Strong data control Honestly I prefer using OBIS data to other open sources. I would like an option like GBIF to save a search with a The other stuff is just general dirty data like negative individualCount or some as decimals and some as integers.	
11812267618	Sep 08 2022	Either way I don't find cleaning OBIS data to be as onerous as other sources, especially because its already take	
11812266635	Sep 08 2022	It would be great if in the taxonomic searching, that there would be options to change spelling of an organism. Ar	
11812208851	Sep 07 2022	Some errors are inevitably going to end up slipping through but I would love to see further enhancements to quali	
11812182638	Sep 07 2022	Generally I'm really happy with the data as provided. I see additional QC as part of my job as a user of the data -	
11812176120	Sep 07 2022	All of my analyses suffer from lack of data. Even when merging with GBIF records, the amount of data is rarely er It is a very good source of information! The way how it is presented. It is to relate with other databases. The use o	
11812173002	Sep 07 2022	Thanks OBIS! :)	
11812130380	Sep 07 2022	Good to link more to WoRMS and have a gold standard dataset where all metadata and sources are documented	
11812108229	Sep 06 2022	I consider it an excellent and very useful tool for scientific analysis and access to open and quality data. The sugg	
11812102325	Sep 06 2022	Thanks for all the work through the years.	

		The data for many species/areas are horribly wrong. See for instance my comment https://www.researchgate.net/publication/352514006_Gaps_in_DNA_sequence_libraries_for_Macaronesian_mar Oh my God. How can anybody use GBIF for serious scientific work ? I looked at the Madeira species list and of course (again, because GBIF is a sad accumulation of errors) 1) There were numerous species listed which do not occur at Madeira - at least they are not listed in relevant che 2) the same species was listed with different synonyms. 3) An incredibly large number of species (listed in those checklists not consulted) is missing.
11812087027	Sep 06 2022	
11811850875	Sep 02 2022	I am happy with the current implementation of QC and data access of OBIS datasets I have found duplicate records because they are in more than one dataset. The same record, the same catalog nu
11811694397	Aug 31 2022	
11811194391	Aug 25 2022	thank you all and the team behind this great work
11810615427	Aug 18 2022	It seems there is still a lot of suspicion about OBIS relative to other occurrence databases like GBIF and PBDB. I
11808665235	Jul 26 2022 0	Search using metadata records, like projectID (not collected, I think). Better capabilities for searching setting QC f
11808437379	Jul 22 2022 0	Data citation by users and citation tracking by OBIS and data providers would be facilited by DOI associated to ea
11808398010	Jul 22 2022 0	it is good
11808333564	Jul 21 2022 0	NA
11808260928	Jul 20 2022 0	I think OBIS will be much improved if records from additional museums can be obtained, e.g., Copenhagen Muse

of OBIS datasets.

e check_depth function. Having some means of downloading by functional trait (e.g. benthic at adult stage) would be very hel

DOI for others to pull the same data as a command using robis. If this feature is available it is not obvious in robis. (rgbif imple

My most recent pull has -79.54, 1, 1.0, 17, 17.0 etc. Or columns that seem like they should be binary eg occurenceStatus ha

n into consideration some of the quirks of working with marine data.
example is having a mix of common names and scientific names in a dataset. If would be nice if both could be searched at th
ty control. In some cases, I think it does more harm than good to include highly uncertain or imprecise information. There are,
as this is often very specific to my own purposes.
ough to say anything conclusive. More needs to be done to encourage data collection and publication. In my opinion the mos
f Darwin Core from OBIS, helps me to construct my own database. The big problem is the lack of information and representat

. Be able to filter "ALL" or "Gold standard"
estions that I send you are: 1. Keep the taxonomic data up to date since some species could not be included because they ar

ine_macroinvertebrates_imply_decades_till_completion_and_robust_monitoring/comments :

cklists written by experts for these groups that (contrary to the abstract) were not consulted,

umber but different dataset name.

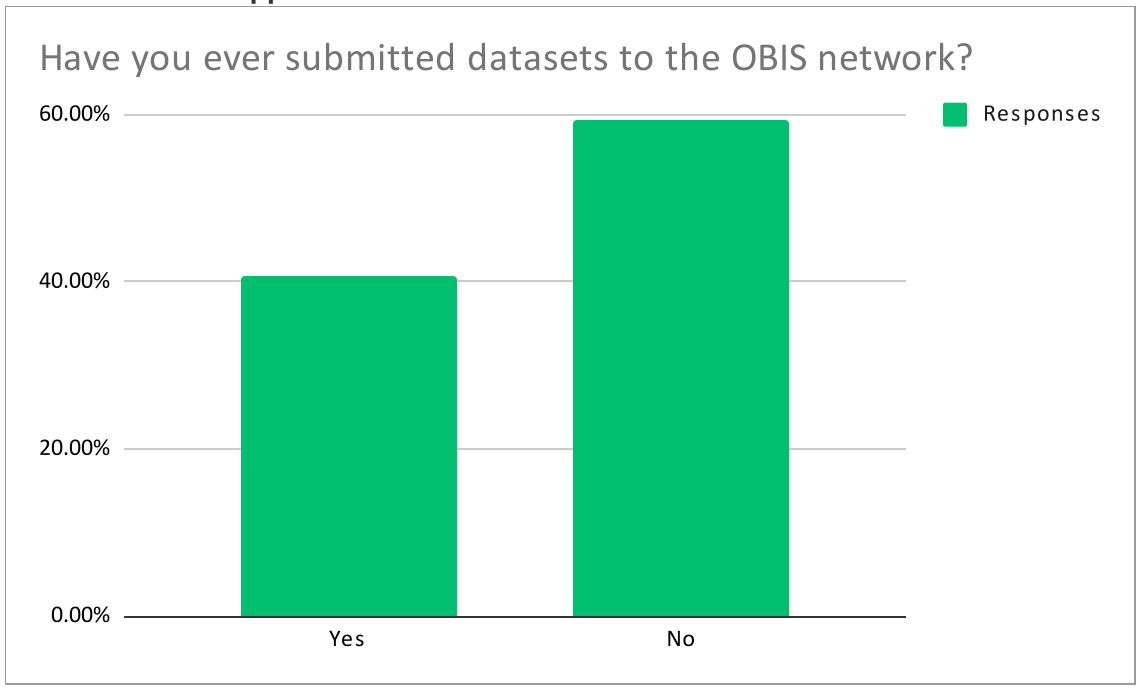
use OBIS a lot and do not totally understand this suspicion. But worth noting
lags
ach data request as is currently done by GBIF (Global Biodiversity Information Facility).

um, Naturalis, British Museum, etc. Of course, that has to wait until those institutions get their records digitized, but I wonder if

OBIS user survey

Have you ever submitted datasets to the OBIS network?

Answer Choices	Responses	
Yes	40.74%	22
No	59.26%	32
	Answered	**54**
	Skipped	**17**



OBIS user survey

Have you used OBIS datasets in official reports/ assessments? If so, please provide an example (optional).

Answered **23**

Skipped **48**

Respondent ID	Response Date	Responses	Tags
11812549543	Sep 13 2022	I have tried several times to deposit data, with the help os assistants. It was impossible.	
11812520049	Sep 12 2022	https://www.bdmy.org.mx/datasetsbdmy	
11812467125	Sep 12 2022	No, only for preliminary efforts of the thesis of my students	
11812291419	Sep 08 2022	Not yet	
11812182638	Sep 07 2022	I used OBIS data in the chapter on Fish in the recent second World Ocean Assessment	
11812175942	Sep 07 2022	Our published work was citied in IPCC reports, eg. Chaudhary et al. 2021 PNAS. Reimer, J.D., Yanagi, K., Kise, H., Poliseno, A., Kushida, Y., Saeedi, H. and Lindsay, D.J. (2020) Cnidaria and Cte	
11812130380	Sep 07 2022	Lindsay, D.J., Grossmann, M.M., Bentlage, B., Collins, A.G., Minemizu, R., Hopcroft, R.R., Miyake, H., Hidaka-Un	
11812111278	Sep 06 2022	NO	
11812108229	Sep 06 2022	Not yet.	
11812102325	Sep 06 2022	Yes	
11812087027	Sep 06 2022	no	
11812084022	Sep 06 2022	si, complementary information about records of biodiversity	
11812069270	Sep 06 2022	For a datapaper to be published	
11811978639	Sep 05 2022	Yes	
11811694397	Aug 31 2022	No	
11811638517	Aug 31 2022	no	
11810684738	Aug 19 2022	No	
11810587135	Aug 18 2022	Scientific journal articles	
11809173344	Aug 01 2022	I have used OBIS to understand species distributions and presence/absence in Indian waters for providing recom	
11808437379	Jul 22 2022 0	No	
11808398010	Jul 22 2022 0	No	
11808333564	Jul 21 2022 0	Yes: Journal publication. Environmental controls of billfish species in the Indian Ocean and implications for their n	

11808332892 Jul 21 2022 0 In several scientific papers.

nophora: Review of deep-sea Cnidaria and Ctenophora fauna in the NW Pacific Ocean. in Biogeographic Atlas of the Deep N

netsu, M. and Nishikawa, J. (2017) The perils of online biogeographic databases: A case study with the “monospecific” genus A

mendations to policy makers for its protection and for other research work on understanding bycatch issues.

anagement and conservation

OBIS user survey

Your Institution, if applicable:

Answered	**41**
Skipped	**30**

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	JAMSTEC	
11812593129	Sep 13 2022	IBIOMAR-CONICET	
11812549543	Sep 13 2022	Universidad de Costa Rica	
11812520049	Sep 12 2022	Universidade nacional autonoma de Mexico (UNAM)	
11812495690	Sep 12 2022	University of Plymouth	
11812493793	Sep 12 2022	U. Miami Cooperative Inst. Marine and Atmospheric Sci. (CIMAS)/ NOAA Atlantic and Oceanographic Laboratory	
11812485475	Sep 12 2022	University of Plymouth	
11812467125	Sep 12 2022	Universidad Nacional Autónoma de México, Instituto de Ciencias del Mar y Limnología	
11812449521	Sep 11 2022	University of South Florida	
11812291419	Sep 08 2022	Institut de Recherches Haleutiques et Océanologiques du Bénin (IRHOB)	
11812267618	Sep 08 2022	McGill University	
11812266635	Sep 08 2022	University of South Florida	
11812208851	Sep 07 2022	Fisheries and Oceans Canada	
11812182638	Sep 07 2022	University of Sheffield	
11812176120	Sep 07 2022	USF IMaRS	
11812175942	Sep 07 2022	Nord University	
11812174760	Sep 07 2022	University of Sheffield	
11812130380	Sep 07 2022	JAMSTEC	
11812123036	Sep 07 2022	NIWA	
11812111278	Sep 06 2022	No	
11812108229	Sep 06 2022	Faculty of Sciences, Central University of Venezuela	
11812102325	Sep 06 2022	Louisiana State University	
11812087027	Sep 06 2022	CCMAR, Portugal	

11812084022	Sep 06 2022	Universidad Simón Bolívar
11812081307	Sep 06 2022	Universidad Central de Venezuela
11812069270	Sep 06 2022	IVIC- Venezuela
11812040800	Sep 06 2022	Nodo Carribbean
11811978639	Sep 05 2022	Universidad de carabobo
11811850875	Sep 02 2022	AFROBI
11811694397	Aug 31 2022	Universidad Nacional Autónoma de México
11810684738	Aug 19 2022	University of Maine
11810587135	Aug 18 2022	Roskilde University
11809173344	Aug 01 2022	Zoo Outreach Organization
11808820584	Jul 27 2022 0	Universidade de São Paulo
11808705051	Jul 26 2022 0	SLGO
11808612989	Jul 25 2022 0	University of South Florida Institute for Marine Remote Sensing
11808335122	Jul 21 2022 0	CONICET
11808333564	Jul 21 2022 0	Kenya marine and Fisheries research institute
11808332892	Jul 21 2022 0	National Research Council of Italy (CNR)
11808323993	Jul 21 2022 1	Centre for Environment, Fisheries and Aquaculture Science
11808260928	Jul 20 2022 0	University of Hawaii at Manoa

(AOML)

OBIS user survey

Country:

Answered	**49**
Skipped	**22**

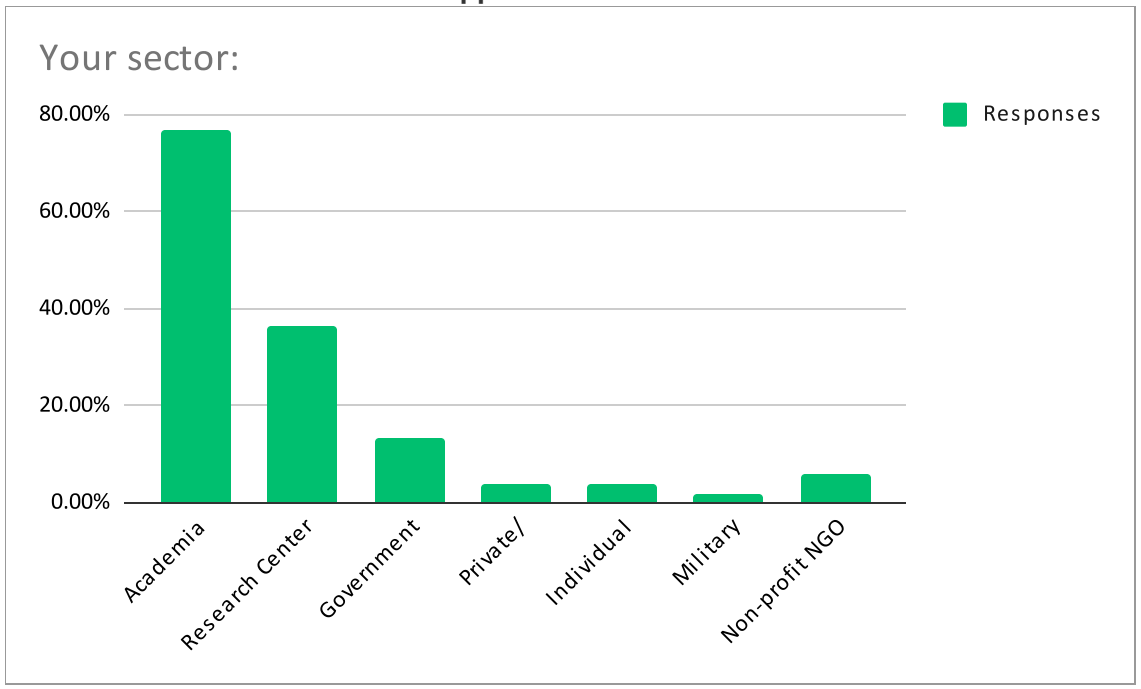
Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	Japan	
11812593129	Sep 13 2022	Argentina	
11812549543	Sep 13 2022	Costa Rica	
11812520049	Sep 12 2022	Mexico	
11812495690	Sep 12 2022	UK	
11812493793	Sep 12 2022	USA	
11812485475	Sep 12 2022	United Kingdom	
11812467125	Sep 12 2022	Mexico	
11812291419	Sep 08 2022	Benin	
11812267618	Sep 08 2022	Canada	
11812266635	Sep 08 2022	USA	
11812208851	Sep 07 2022	Canada	
11812182638	Sep 07 2022	UK	
11812176120	Sep 07 2022	USA	
11812179888	Sep 07 2022	Brazil	
11812175942	Sep 07 2022	Norway	
11812174760	Sep 07 2022	Uk	
11812173002	Sep 07 2022	UK - Chile	
11812130380	Sep 07 2022	Japan	
11812123036	Sep 07 2022	New Zealand	
11812111278	Sep 06 2022	Venezuela	
11812108229	Sep 06 2022	Venezuela	
11812102325	Sep 06 2022	USA	

11812087027	Sep 06 2022	Portugal
11812084022	Sep 06 2022	Venezuela
11812081307	Sep 06 2022	Venezuela
11812081948	Sep 06 2022	United States
11812069270	Sep 06 2022	Venezuela
11812040800	Sep 06 2022	Venezuela
11811978894	Sep 05 2022	VENEZUELA
11811978639	Sep 05 2022	Venezuela
11811850875	Sep 02 2022	South Africa
11811694397	Aug 31 2022	México
11811638517	Aug 31 2022	latvia
11811194391	Aug 25 2022	India
11810684738	Aug 19 2022	USA
11810587135	Aug 18 2022	Denmark
11809173344	Aug 01 2022	India
11808820584	Jul 27 2022 0	Brasil
11808705051	Jul 26 2022 0	CANADA
11808612989	Jul 25 2022 0	USA
11808462295	Jul 22 2022 0	United States of America
11808437379	Jul 22 2022 0	Spain
11808398010	Jul 22 2022 0	China
11808335122	Jul 21 2022 0	Argentina
11808333564	Jul 21 2022 0	Kenya
11808332892	Jul 21 2022 0	Italy
11808323993	Jul 21 2022 1	UK
11808260928	Jul 20 2022 0	USA

OBIS user survey

Your sector:

Answer Choices	Responses	
Academia	76.92%	40
Research Center	36.54%	19
Government	13.46%	7
Private/ Commercial/ Industry	3.85%	2
Individual	3.85%	2
Military	1.92%	1
Non-profit NGO	5.77%	3
Other (please specify)		0
	Answered	**52**
	Skipped	**19**



OBIS user survey

What are the most interesting topic/s for you and/or your Institution? (this might involve a specific field of study and/or s

Answered 36

Skipped 35

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	Deep-sea biology.	
11812549543	Sep 13 2022	Taxonomic richness of the country, biogeography.	
11812495690	Sep 12 2022	habitat mapping	
11812493793	Sep 12 2022	Biogeography, merging of taxonomic records with satellite remote sensing fields, biodiversity, eDNA-derived biodi	
11812485475	Sep 12 2022	Biogeographic studies, fine- and broad-scale habitat classification, mapping and modelling	
11812467125	Sep 12 2022	Benthic invertebrates, integrative taxonomy	
11812449521	Sep 11 2022	Biodiversity change	
11812346864	Sep 09 2022	eDNA based occurrence data	
11812291419	Sep 08 2022	Marine biodiversity (Fish, cetacean, Holothurie, Shrimps etc.) My lab works on eDNA data. I use OBIS data to inform our results and generate lists of species that are known to I would like to try working with open eDNA data and eventually upload our eDNA datasets!	
11812267618	Sep 08 2022	I also use OBIS data when I'm curious about animals even when its not work related	
11812266635	Sep 08 2022	Community composition change through time.	
11812182638	Sep 07 2022	Global patterns in marine biodiversity - including variation in space and time	
11812176120	Sep 07 2022	Biodiversity modeling	
11812175942	Sep 07 2022	climate change, trends over time, biogeography, Marine Protected Area network design and assessment of its rep	
11812174760	Sep 07 2022	Invasive and threatened marine benthic invertebrates	
11812173002	Sep 07 2022	Biodiversity	
11812130380	Sep 07 2022	Biogeographic records linked to photographs or drawings and DNA sequences	
11812108229	Sep 06 2022	Data sets associated with the biodiversity of marine algae, among other species.	
11812102325	Sep 06 2022	Taxonomic validity of species lists from Gulf of Mexico dating back to 1960s.	
11812084022	Sep 06 2022	Species distribution, eDNA	

11812081307	Sep 06 2022	Plankton community
11812081948	Sep 06 2022	species distributions, biogeogaphy, biodiversity.
11811978639	Sep 05 2022	Buogeography. Biodiversity. Temporal changes
11811850875	Sep 02 2022	QC procedures for biodiversity data
11811694397	Aug 31 2022	biodiversity data and distribution patterns.
11811194391	Aug 25 2022	e DNA
11810684738	Aug 19 2022	For me: imaging datasets.
11810587135	Aug 18 2022	Plankton ecology
11809173344	Aug 01 2022	Species distribution, wildlife conservation and by catch monitoring
11808820584	Jul 27 2022 0	At the time, I was very interested in conservation science
11808398010	Jul 22 2022 0	time series of biodiversity
11808335122	Jul 21 2022 0	Fish ecology
11808333564	Jul 21 2022 0	Species distribution data
11808332892	Jul 21 2022 0	Me: Species Distribution Modelling Institution: ICT
11808323993	Jul 21 2022 1	Biogeographic and biodiversity analysis/methods
11808260928	Jul 20 2022 0	For me, biogeography of the deep sea

pecific taxa, or specific methods including eDNA and DNA derived data)

versity, ecosystem health, impacts of water quality on marine biodiversity.

occur in the region of study. This way I can check the completeness of our reference databases and accuracy of species assi

presentativity

OBIS user survey

Have you ever required ocean biodiversity data from other sources/repositories to complete/supplement your study? If s

Answered 39

Skipped 32

Respondent ID	Response Date	Responses	Tags
11813080923	Sep 20 2022	GBIF	
11812549543	Sep 13 2022	No	
11812520049	Sep 12 2022	yes, GBIF and SNIB-CONABIO-Mexico. They complement eachother.	
		yes	
11812495690	Sep 12 2022	GBIF	
11812493793	Sep 12 2022	Survey data from long-term time series programs like HOT, CARIACO, BATS, or synthesis databases like PhytoB	
11812485475	Sep 12 2022	Yes, GBIF holds some additional records that OBIS doesn't although picking apart duplicate records from each da	
		WoRMS	
		GBIF	
11812467125	Sep 12 2022	UNINMAR	
11812449521	Sep 11 2022	GBIF, separate individual studies, literature	
11812346864	Sep 09 2022	yes - species specific information form FishBase/SeaLifeBase and literature, taxonomic updates from Encyclopec	
11812291419	Sep 08 2022	Yes, WoRMS and Fish-base	
11812267618	Sep 08 2022	GBIF, museums/institutional collections, idigbio, open tree of life, bold, ncbi, dryad	
11812244166	Sep 08 2022	We used the products already developed by Aquamaps and so it was a derived product that included OBIS recor	
11812208851	Sep 07 2022	Yes. The literature. GBIF. Macroalgal Herbarium Database. NEMESIS.....others	
11812182638	Sep 07 2022	WoRMS, FishBase / Sealifebase, IUCN Red List, Genbank, various traits databases	
11812175942	Sep 07 2022	IMR Bergen research trawl database	
11812174760	Sep 07 2022	Coupled obis occurrence records with temperature records from Bio-oracle	
11812173002	Sep 07 2022	No	
11812130380	Sep 07 2022	original source literature, GBIF, WoRMS	
11812123036	Sep 07 2022	GBIF, ALA, USNHM, MNHM,	

		Yes: Ficoflora Venezuela, https://www.ficofloravenezuela.info.ve/public/index.php AlgaeBase, https://www.algaebase.org/
11812108229	Sep 06 2022	Huérfano, A., Fedón, I., & Mostacero, J. (eds.) 2020. Red Book of Venezuelan flora. Second edition. Botanical Ga
11812102325	Sep 06 2022	Prior to inception of OBIS I obtained benthic fauna data from NOAA-NODC. It required requests for tape loads ar fishbase - also horribly wrong.
11812087027	Sep 06 2022	Internet data bases are collections of erroneous records !!
11812084022	Sep 06 2022	no
11812081307	Sep 06 2022	GBIF, NOAA
11812069270	Sep 06 2022	GBIF
11811978639	Sep 05 2022	Yes. Paper about topic
11811850875	Sep 02 2022	GBIF
11811694397	Aug 31 2022	GBIF and Portal de Datos Abiertos (UNAM)
11811194391	Aug 25 2022	yes from CIFA India
11810684738	Aug 19 2022	I use EcoTaxa regularly.
11809173344	Aug 01 2022	WoRMS
11808820584	Jul 27 2022 0	Yes. Natural Sciences Museum of the Zoo-Botany Foundation of Rio Grande do Sul; Museum of Zoology of the U
11808612989	Jul 25 2022 0	GBIF
11808437379	Jul 22 2022 0	Global Biodiversity Information Facility
11808398010	Jul 22 2022 0	biotime database
11808335122	Jul 21 2022 0	yes, GBIF
11808333564	Jul 21 2022 0	No
11808332892	Jul 21 2022 0	Yes, I used GBIF to enrich the datasets.
11808260928	Jul 20 2022 0	No

o, please list them:

ase, MAREDAT.
atabase is a challenge - better coordination between the two would help (e.g. mutual ID fields)

lia of Fishes and WoRMS

ds. One reason for this was that the product integrated both OBIS and GBIF, and had been QC and published and cited before

ırden Experimental Institute, Central University of Venezuela, Caracas, Venezuela.
ıd ability to parse obsolete Muldars 80 column undelineated text!

lniversity of S˜ao Paulo; and private collections

Question	Response [1]	Interpretation [2]	Functionality already exists? [	Type [4]	Comments/Notes
Q9_FIELDSLACKING	Deep-sea benthos records, especially from some poor documented phyla as Sipuncula, Bryozoans, Nematoda.	Data is lacking for deep-sea benthos.	Not applicable	External	Maybe promote a call for submission of data
Q21_COMMENTSONQC	create separate databases when updating and note the start/end dates	Version control for database updates	Yes	FAQ	how to upload new version on IPT, or access new version of entire OBIS database
Q6_DIFFICULTIESTEXT	Sometimes the user experience is not the best no navigate between the data		Not applicable	Improvement	
Q9_FIELDSLACKING	It is hard to find detailed information on the source of the data in a clear format	Source of data not clear in the metadata	Yes	FAQ	
Q9_FIELDSLACKING	datum	Datum information is lacking	Yes	FAQ	I suppose all data is on WGS84
Q9_FIELDSLACKING	OBIS data are incomplete and not regularly updated		Not applicable	External	
Q21_COMMENTSONQC	Keep up the good work; hosting training workshops for interested users may help wider use of the data	Hosting trainings to widening use	Not	Implementation	
Q6_DIFFICULTIESTEXT	Metadata that could be used for sampling effort correction was limited to almost nonexistent for seabirds. Having that information is critical, but it was very difficult to find (if it was documented at all).	sampling effort often missing, which makes it harc	Yes	FAQ	how to publish sampling effort information
Q6_DIFFICULTIESTEXT	I recall that when I went to download data, it was a bit challenging to work out what the data I was downloaded consisted of - meaning number of records, etc. but it was a while ago! Also, I remember there being some error when I went to download certain data, but that was something I worked out .	Hard to understand the downloaded dataset	Not applicable	FAQ	
Q21_COMMENTSONQC	Displaying results from WoRMS (distributions), GBIF (BOLD and iNaturalist) can reveal errors in OBIS datasets for names. Then have a way to contact those sources for those names (presently, have to search contact and email, but not always active or easy).	Displaying results from other databases	Not applicable	FAQ	Names from OBIS are already checked with WoRMS, so it may be worth clarifying this
Q6_DIFFICULTIESTEXT	No way to get yearly data before 1900.	Data before 1900 is lacking	Not applicable	External	
Q6_DIFFICULTIESTEXT	Sometimes is hard to find the data. Many times there are records of which I doubt very much. I have a relatively good idea of what has been collected and publish from Costa Rica, but in the data base there are many many more records. Deepwater records are hard to find, especially with depth of collection.	Difficulty in finding data. Data for some areas of q	Not applicable	External	
Q21_COMMENTSONQC	Do more quality control as the source of the data.		Mixed	Improvement	Improve flagging of data
Q9_FIELDSLACKING	Methods used for data collection are not often reported.		Yes	External	Improve metadata info
Q6_DIFFICULTIESTEXT	Originally the full export wasn't working and downloading the full dataset in R was very computationally challenging and time consuming	Full export not working	Yes	Nothing	Appears to be old problem
Q21_COMMENTSONQC	Updating the obis tools and robis packages in R with better/clearer documentation would be useful, particularly the check_depth function. Having some means of downloading by functional trait (e.g. benthic at adult stage) would be very helpful. Ensuring all downloads use the same fields in the same order would help speed up formatting automation.	Updating obis packages documentation. Downloa	Mixed	Improvement and Implementation	
Q9_FIELDSLACKING	Updated taxonomic status Sieve size fraction in the case of benthos Depth zone	Update taxonomic status. Metadata improvement	Yes	External	
Q21_COMMENTSONQC	1. Nodes that are certified needed 2. Request best practices Congratulate for the important effort through this survey	1. Not clear. 2. Request best practices to data.	Not applicable	External	
Q6_DIFFICULTIESTEXT	It has been a long-standing issue and discussion to provide OBIS with complex polygons or multiple complex polygons. Also, not clear yet how to develop all needed fields for complete description of EMoF for new subvariables (such as area cover assessments, polygons) Inability or lack of plans to store image data (even with the explosion in imaging devices/imaging flow cytometers, remote sensing data)	Provide support to complex polygons. Not clear h	Yes	Improvement and Implementation	
Q6_DIFFICULTIESTEXT	Difficult to access to the right data needed		Yes	FAQ	
Q21_COMMENTSONQC	Strong data control		Yes	External	
Q21_COMMENTSONQC	Honestly I prefer using OBIS data to other open sources. I would like an option like GBIF to save a search with a DOI for others to pull the same data as a command using robis. If this feature is available it is not obvious in robis. (rgbif implementation: occ_download_get() %>% occ_download_import()) The other stuff is just general dirty data like negative individualCount or some as decimals and some as integers. My most recent pull has -79.54, 1, 1.0, 17, 17.0 etc. Or columns that seem like they should be binary eg occurenceStatus having "P, present, Present, Presente", could have a verbatim column and a clean column like lots of the other columns. Either way I don't find cleaning OBIS data to be as onerous as other sources, especially because its already taken into consideration some of the quirks of working with marine data.	Attribute DOI to data requests. Specific collumns	Not	Implementation	
Q6_DIFFICULTIESTEXT	It seems without using the R package, it is hard to find where to download the formatted data. It is also difficult to filter for data that have the same variables outside presence/absence.	Hard to find where to download data. Not possible	Yes	FAQ	
Q21_COMMENTSONQC	It would be great if in the taxonomic searching, that there would be options to change spelling of an organism. An example is having a mix of common names and scientific names in a dataset. If would be nice if both could be searched at the same time or at least allow me to spell check in the middle of data aquisition.	Add support to search by common names/synonii	Not	Implementation	
Q9_FIELDSLACKING	depth is often missing, temporal information is sometimes lacking, or seems not to be correct	Information is missing.	Not applicable	External	
Q21_COMMENTSONQC	Some errors are inevitably going to end up slipping through but I would love to see further enhancements to quality control. In some cases, I think it does more harm than good to include highly uncertain or imprecise information. There are, for example, datasets where the geographic coordinate data is not for particular sites or locations, but for some large geographic region (ie the locations are not specific, rather they are for the centre of some area that a list has been created for....and all records have the same coordinates). To my mind these datasets should simply have no coordinates entered.	Enhance quality control of data (e.g. geographic c	Yes	Improvement	
Q6_DIFFICULTIESTEXT	Sometimes the metadata does not (yet) exist - e.g. I would like event-level metadata on sampling methodology and this is hard to find.	Metadata is lacking	Not applicable	External	

Q6_DIFFICULTIESTEXT	MoFs are not well documented and usage is highly non-standard.	Lack of documentation and standardization for M	Yes	Improvement							
Q21_COMMENTSONQC	All of my analyses suffer from lack of data. Even when merging with GBIF records, the amount of data is rarely enough to say anything conclusive. More needs to be done to encourage data collection and publication. In my opinion the most cose-effective approaches are: 1) data lotteries & ransoms - funding awarded for data submission, 2) software built on the OBIS API that provide incentive for researchers to submit their data - e.g. visualization & analyses that are useful additions for publication authors.	Promote submission of data to OBIS	Not applicable	Improvement							
Q6_DIFFICULTIESTEXT	it would be useful to be able to filter datasets by broad sampling method, eg fishery research trawl, quadrat, tracking of individual animal, transect; especially to enable estimation of species richness qualified by the same sampling method and/or use of abundance data	Possibility to filter data by sampling methods	Not	Implementation							
Q9_FIELDSLACKING	Selection data by the biogeographic realms classified using OBIS data in Costello et al. Nature Communications. Selection data by broad habitat and depth zones - intertidal, subtidal, sediment, epibiota, visual census, water/pelagos samples, etc.	Possibility to filter data by biogeographic realms c	Not	Implementation							
Q6_DIFFICULTIESTEXT	It was difficult to find the metadata for the datasets in OBIS.	Difficulty in finding metadata info	Yes	FAQ							
Q9_FIELDSLACKING	Not so many data for Marine invertebrates of Chile	data gaps	Not applicable	External							
Q6_DIFFICULTIESTEXT	Data sources were often just links to an Institutional webpage that no longer exists or email addresses of people who had retired or died so it was impossible to verify quality.	Data source information wrong/not updated	Not applicable	External							
Q21_COMMENTSONQC	Good to link more to WoRMS and have a gold standard dataset where all metadata and sources are documented. Be able to filter "ALL" or "Gold standard"	Create a gold standard dataset	Not	Implementation	Specialist checked datasets.						
Q6_DIFFICULTIESTEXT	Difficulties in connecting to the IPT platform. Difficulty remembering the metadata identifiers and equivalence with the names used specifically in the projects, due to the fact that several fields have similar uses.	Difficulties in connecting to the IPT. Difficulties in	Yes	Improvement							
Q21_COMMENTSONQC	I consider it an excellent and very useful tool for scientific analysis and access to open and quality data. The suggestions that I send you are: 1. Keep the taxonomic data up to date since some species could not be included because they are not considered valid names of species, and they are. 2. Include more species in the risk categories, particularly in the case of the Caribbean Sea and northern South America. In the case of algae, and specifically for Venezuela, a lot of information is missing.	Keep taxonomic info up to date (inclusion of data	Yes	Nothing	Scientific names are already checked through WoRMS. Not sure if the submission of data is hampered anyhow.						
Q21_COMMENTSONQC	The data for many species/areas are horribly wrong. See for instance my comment https://www.researchgate.net/publication/352514006_Gaps_in_DNA_sequence_libraries_for_Macaronesian_marine_macroinvertebrates_imply_decades_till_completion_and_robust_monitoring/comments : Oh my God. How can anybody use GBIF for serious scientific work ? I looked at the Madeira species list and of course (again, because GBIF is a sad accumulation of errors) 1) There were numerous species listed which do not occur at Madeira - at least they are not listed in relevant checklists written by experts for these groups that (contrary to the abstract) were not consulted, 2) the same species was listed with different synonyms. 3) An incredibly large number of species (listed in those checklists not consulted) is missing.	Wrong records for some species/areas	Not applicable	External							
Q6_DIFFICULTIESTEXT	The map	Mapper is difficult	Yes	Improvement							
Q9_FIELDSLACKING	Dataset name and providers	Information lacking	Not applicable	External	This depends on providers supplying those data.						
Q21_COMMENTSONQC	I have found duplicate records because they are in more than one dataset. The same record, the same catalog number but different dataset name.	Duplicated records in different datasets.	Not	Nothing	Can be easily filtered by the person						
Q6_DIFFICULTIESTEXT	finding out right data set is the real challenge	Finding the right dataset	Not applicable	Nothing							
Q21_COMMENTSONQC	It seems there is still a lot of suspicion about OBIS relative to other occurrence databases like GBIF and PBDB. I use OBIS a lot and do not totally understand this suspicion. But worth noting	There is suspicion regarding OBIS when compare	Not applicable	Nothing							
Q6_DIFFICULTIESTEXT	I am not so experience in searching in databases. Hence, I ofte need specific help to maneuvre	Lack of experience in searching through databas	Not applicable	Training							
Q9_FIELDSLACKING	Zoo plankton distribution	Not clear.	Not applicable	Nothing							
Q6_DIFFICULTIESTEXT	I am finding it difficult to access data (in excel format) for specific countries, so we can understand species distribution and formulate conservation policies	Difficulty to find data for specific countries. Downl	Mixed	External	Provision of data for some regions is needed. Excel export not available, but I believe it should not be.						
Q6_DIFFICULTIESTEXT	It was not very clear I had to go download the dataset	Not clear on where to go to download the dataset	Yes	FAQ							
Q21_COMMENTSONQC	Search using metadata records, like projectID (not collected, I think). Better capabilities for searching setting QC flags	Search using metadata info. Improved search usi	Mixed	Implementation							
Q6_DIFFICULTIESTEXT	Compared to GBIF where you zoom in on a point on the species map then hit "explore area" to see all the points data to get to the same point in OBIS requires 2-3 times as many steps then when you finally manouver the cursor over the correct bit of the point then provides mostly useless information..check the two outputs and you can see what I mean	Mapper of OBIS is not easy to look at zoomed re	Yes	Improvement							
Q9_FIELDSLACKING	Citation; Sampling device/unit/effort; Environmental data at sampling/record	Lacking info on sampling (device, effort, etc) and	Yes	Nothing	This depends on providers supplying those data.						
Q21_COMMENTSONQC	Data citation by users and citation tracking by OBIS and data providers would be facilited by DOI associated to each data request as is currently done by GBIF (Global Biodiversity Information Facility).	Associate DOI to each data request as GBIF mod	Not	Implementation							
Q6_DIFFICULTIESTEXT	The metadata of dataset, such as abstract, is not detailed enough, and not in Standard format. I hope that obis can add survey methods of each dataset to metadata.	Metadata not detailed enough and does not follow	Not	Standardisation							
Q9_FIELDSLACKING	Dates,	Date is lacking	Yes	FAQ							
Q21_COMMENTSONQC	I think OBIS will be much improved if records from additional museums can be obtained, e.g., Copenhagen Museum, Naturalis, British Museum, etc. Of course, that has to wait until those institutions get their records digitized, but I wonder if there is some way to help that process along.	Add/promote the adding of museums records	Not applicable	External							

[1] The original response to the question

[2] A synthetic analysis of the problem/suggestion

[3] Either if the problem refers to some functionality that already exists. If not related to a particular functionality, "Not applicable".

[4] Type of action needed. External = something that have to be done by external stakeholders