



How do I use publicly available biodiversity data?

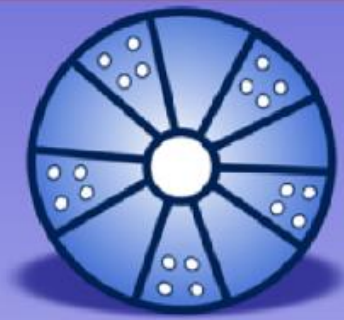
Get Started with...

Licenses

Darwin core and OBIS-ENV-DATA format

A quick guide to QGIS

Geoservers

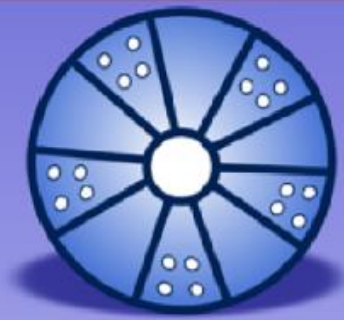


First, make sure you are actually allowed to use the data for your project.

You may not be able to use certain datasets commercially, for example, or may need to approach the owner to ask them if you can use it for your project. This may also take some time, as you will need to wait for them to reply to you.

Most datasets will require that you at least acknowledge the data owner.

Check the site you are downloading the datasets from for this information, like copyright license, use restriction information, recommended citations, etc.



The latest standards indicate that datasets should define their copyright licence permissions through set copyright licences. This make it easier for the user, as you wont need to go onto every organisations Terms and Conditions page, or contact them to ask if you may use it.

Common copyright licenses include

Creative commons licenses: <https://creativecommons.org/licenses/>

Open Government License: <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

A general guide to some common licenses

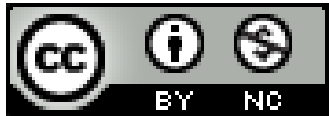


CC BY:



Others can use and build on the resource but must credit the owners of that resource

CC BY NC



Others can use and build on the resource for non-commercial purposes but must credit the owners of that resource

Open

Government
Licence

Others can use and build on the resource but must credit the owners of that resource



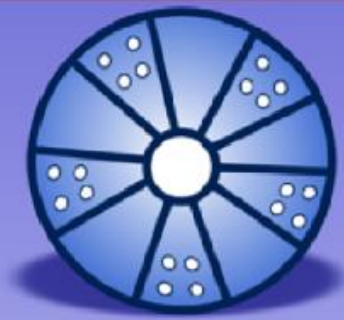
A general guide citing a resource

Check the page you are downloading a data set or other resource from to see if it already has a recommended citation

Johns D (2011): Continuous Plankton Recorder Dataset (SAHFOS) - Phytoplankton. v4.1. Sir Alister Hardy Foundation for Ocean Science (SAHFOS). Dataset/Occurrence. <https://doi.org/10.7487/ysaz8e>

Citation

Johns D, Broughton D, Team D (2020). The CPR Survey. Version 1.2. Marine Biological Association. Sampling event dataset <https://doi.org/10.17031/1629> accessed via GBIF.org on 2021-03-07.



If not, this is a general guide for how to lay out a citation

The name of
the resource
creator

The year the
resource
was made
(or if this is
not
available,
the year you
accessed it)

The
resource's
title

The publisher
of the resource
or website
name.

Journals
and books

volume
and page
number.

Online sources

The date you
accessed the
resource(viewed
a website,
downloaded a
dataset etc.)

DOI or
website
URL

Darwin Core



DwC (Darwin Core) is a framework for standardising the way biodiversity data is compiled to make data interoperable between different datasets, platforms and software.

DwC-A (Darwin Core Archive) is the format of the files you will download that contain the data. This is downloaded as a ZIP file containing data and metadata, that link types of information together through identification numbers. One of the files is the central 'core' file, and the other files contain information that links to it.

For more detailed information please see

<https://www.gbif.org/darwin-core>

Name	Type	Size
eml	XML Document	44 KB
meta	XML Document	3 KB
occurrence	Text Document	541,674 KB

A CSV (Comma Separated Value) file- open this in Excel or Notes. This contains your species data and metadata like who collected the samples, the date, the location, etc. This can be a Taxon core, an Occurrence core like this example or the more recent Event core.

[illegible]

This contains information about the dataset, and more generic metadata like it's DOI, copyright license, etc.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D
1	packagid	system	eng	Microservices
2	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
3	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
4	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
5	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
6	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
7	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
8	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
9	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
10	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
11	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
12	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
13	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng
14	https://www.dash3.com.uk/light/resource?id=sahfos-cpr-phdta/v4.5	http://light.dash3.com	system	eng

This is a ‘descriptor’ file that contains links to the Darwin Core term definitions that you will see in your core file. This defines the terms on the core file and its structure for the user.

For any column header terms you are unsure about in the occurrence file, check these links to find out what they are referring to.

They link to <https://dwc.tdwg.org/terms/>

The screenshot shows the Microsoft Excel interface with the 'Formulas' ribbon selected. The 'Import Data' group is visible, containing buttons for 'From Other Sources', 'From Web', 'From Text', 'From Table', 'From Database', 'From Existing Connections', and 'From New Web Content'. The 'From Other Sources' button is highlighted. Below the ribbon, a table of data is visible, showing columns for 'Imported' status, 'URL', and 'Imported Date'.

<https://www.gbif.org/darwin-core> and <https://obis.org/manual/darwincore/> for more explanation.

OBIS-ENV-DATA format



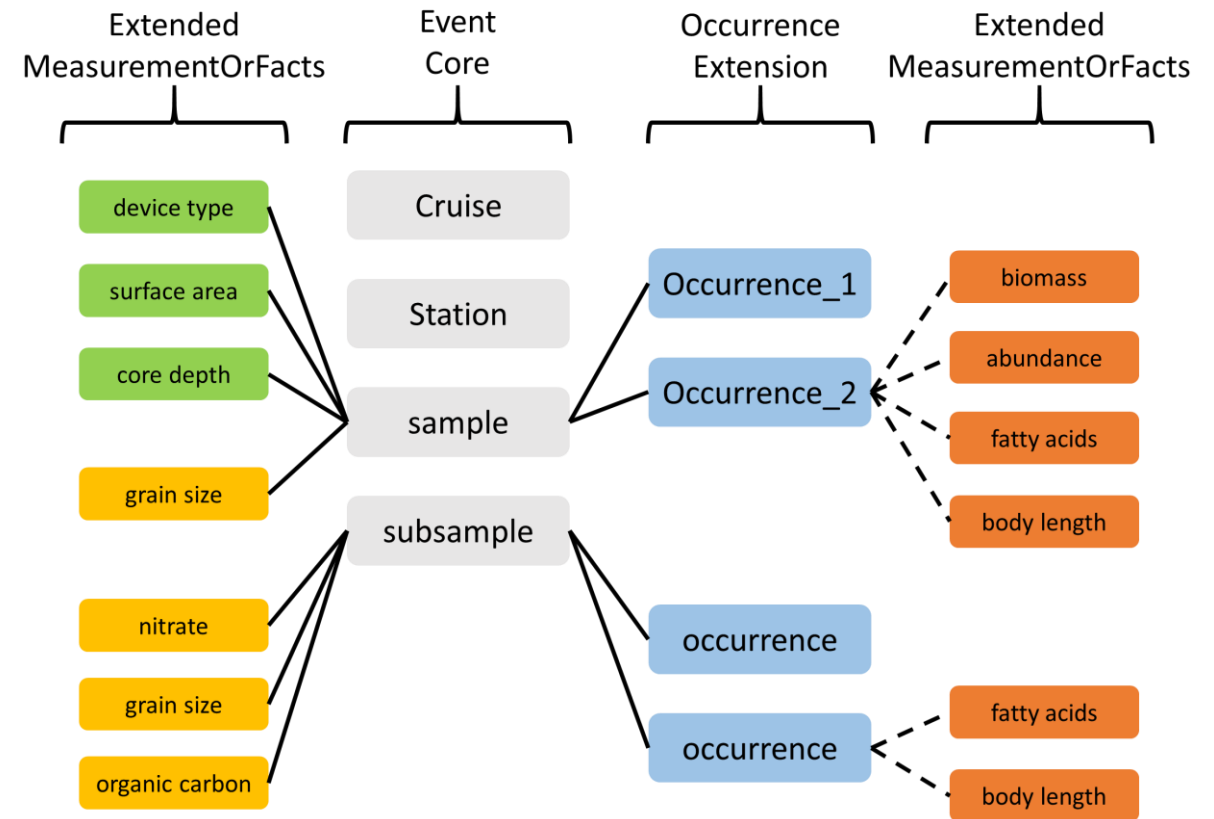
This builds upon the Darwin Core system by using an '[Event core](#)', extra identifiers for measurements and linking to an Occurrence extension and ExtendedMeasurementOrFact extension.

For example, environmental data like geological, physical and chemical data and extra sampling information can be linked up with it's associated sample.

These can be used to link more measurements and information to a sampling event or species occurrence while minimising the amount of repeated information presented to the user.

For more information, please see

<https://obis.org/manual/dataformat/>



Darwin Core



In the Core file...

Column headers tell you what information is in that particular column. If you are unsure about the definition of the header, check the information hyperlinked in the 'meta' file.

Each row also includes the associated metadata for that individual record. While this means that some information in the file may get repeated many times, it allows you to know what metadata applies to each specific record without confusion and you can easily filter out records you are interested in by date, taxa, etc.

FileHomeInsertPage LayoutFormulasDataReviewViewTell me what you want to do...Rebecca IrvineShare

Clipboard

Paste

Font

Alignment

Number

Styles

Cells

Editing

A1

id

	A	B	C	D	E	F	G	H	I	J	K	L	
1	id	type	modified	rights	holdings	bibliographic	institution	collector	collection	basisOfRecord	material	occurrence	catalog
2	001MD-1-112	Collection	23:38.4	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-1-	001MD-1-	001M		
3	001MD-11-121	Collection	02:00.2	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-11	001MD-11	001M		
4	001MD-11-128	Collection	02:04.2	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-11	001MD-11	001M		
5	001MD-1-113	Collection	21:15.8	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-1-	001MD-1-	001M		
6	001MD-1-117	Collection	20:45.0	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-1-	001MD-1-	001M		
7	001MD-1-121	Collection	23:24.0	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-1-	001MD-1-	001M		
8	001MD-1-124	Collection	23:31.4	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-1-	001MD-1-	001M		
9	001MD-1-198	Collection	21:03.7	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-1-	001MD-1-	001M		
10	001MD-13-103	Collection	48:02.2	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-13	001MD-13	001M		
11	001MD-13-112	Collection	48:16.2	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-13	001MD-13	001M		
12	001MD-13-117	Collection	48:26.3	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-13	001MD-13	001M		
13	001MD-13-166	Collection	48:35.5	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-13	001MD-13	001M		
14	001MD-13-198	Collection	48:07.9	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-13	001MD-13	001M		
15	001MD-15-103	Collection	17:24.7	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-15	001MD-15	001M		
16	001MD-15-112	Collection	24:57.7	The Marin Continuo		50 SAHFOS	CPR	HumanOb	001MD-15	001MD-15	001M		

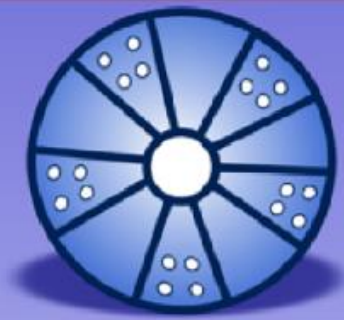
occurrence

Sheet1

Ready

<

Darwin Core



In the Core file...

Within the core file, there are columns containing various types of ID numbers- depending on the number, this may be unique to the survey the record was collected on (eventID), unique to each row (id), etc.

	A	F	J	K	L	M	AB	AC
1	<u>id</u>	<u>institutionID</u>	<u>materialSampleID</u>	<u>occurrenceID</u>	<u>catalogNumber</u>	<u>eventID</u>	<u>taxonID</u>	<u>scientificNameID</u>
2	001MD-1-112	50	001MD-1-112	001MD-1-112	001MD-1-112	001MD-1	112	urn:lsid:marinespecies.org:taxname:370366
3	001MD-11-121	50	001MD-11-121	001MD-11-121	001MD-11-121	001MD-11	121	urn:lsid:marinespecies.org:taxname:109951
4	001MD-11-128	50	001MD-11-128	001MD-11-128	001MD-11-128	001MD-11	128	urn:lsid:marinespecies.org:taxname:156509
5	001MD-1-113	50	001MD-1-113	001MD-1-113	001MD-1-113	001MD-1	113	urn:lsid:marinespecies.org:taxname:163030
6	001MD-1-117	50	001MD-1-117	001MD-1-117	001MD-1-117	001MD-1	117	urn:lsid:marinespecies.org:taxname:149093
7	001MD-1-121	50	001MD-1-121	001MD-1-121	001MD-1-121	001MD-1	121	urn:lsid:marinespecies.org:taxname:109951
8	001MD-1-124	50	001MD-1-124	001MD-1-124	001MD-1-124	001MD-1	124	urn:lsid:marinespecies.org:taxname:109982
9	001MD-1-198	50	001MD-1-198	001MD-1-198	001MD-1-198	001MD-1	198	urn:lsid:marinespecies.org:taxname:157256
10	001MD-13-103	50	001MD-13-103	001MD-13-103	001MD-13-103	001MD-13	103	urn:lsid:marinespecies.org:taxname:148912
11	001MD-13-112	50	001MD-13-112	001MD-13-112	001MD-13-112	001MD-13	112	urn:lsid:marinespecies.org:taxname:370366

Other ID numbers, like institutionID, are used to identify something on a *controlled vocabulary* list.

Controlled vocabularies



Controlled vocabularies are used to keep certain terms consistent and defined between datasets. These controlled vocabularies are defined in a few dedicated websites, for example:

Projections: <https://epsg.org/home.html>

General vocabulary lists: <https://vocab.seadatanet.org/search>

<http://vocab.ices.dk/>

<https://obis.org/manual/dataformat/>

Organisations: <https://edmo.seadatanet.org/search>

Marine species: <http://www.marinespecies.org/aphia.php?p=search>

<http://www.marinespecies.org/msbias/aphia.php?p=search>

There are controlled vocabularies for all sort of things- the method something was collected (sediment cores, transect counts...), the platform it was collected on (fishing boats, ROV's...), the name of the organisation collecting the data (Marine Biological Association, University of Plymouth), the type of projection the coordinate system is in... even individual research vessels can have their own ID numbers in a controlled vocabulary.

Controlled vocabularies



F
<u>institutionID</u>
50



PAN-EUROPEAN INFRASTRUCTURE FOR
OCEAN & MARINE DATA MANAGEMENT

ORGANISATION DETAILS

DETAILS

Name Sir Alister Hardy Foundation for Ocean Science (SAHFOS)

EDMO METADATA

EDMO record id 50

AC
<u>scientificNameID</u>
urn:lsid:marinespecies.org:taxname:370366

WoRMS taxon details

★ *Chaetoceros (Hyalochaete)*

AphiaID 370366 (urn:lsid:marinespecies.org:taxname:370366)

Classification Biota > ★ *Chromista* (Kingdom) > ★ *Harosa* (Subkingdom)
> ★ *Heterokonta* (Infrakingdom) > ★ *Ochrophyta* (Phylum)
> ★ *Khakista* (Subphylum) > ★ *Bacillariophyceae* (Class)
> ★ *Coscinodiscophycidae* (Subclass) > ★ *Chaetocerotanae* (Superorder)
> ★ *Chaetocerotanae incertae sedis* (Order)
> ★ *Chaetocerotaceae* (Family) > ★ *Chaetoceros* (Genus)
> ★ *Chaetoceros (Hyalochaete)* (Subgenus)

Status accepted

QGIS



A quick guide to QGIS

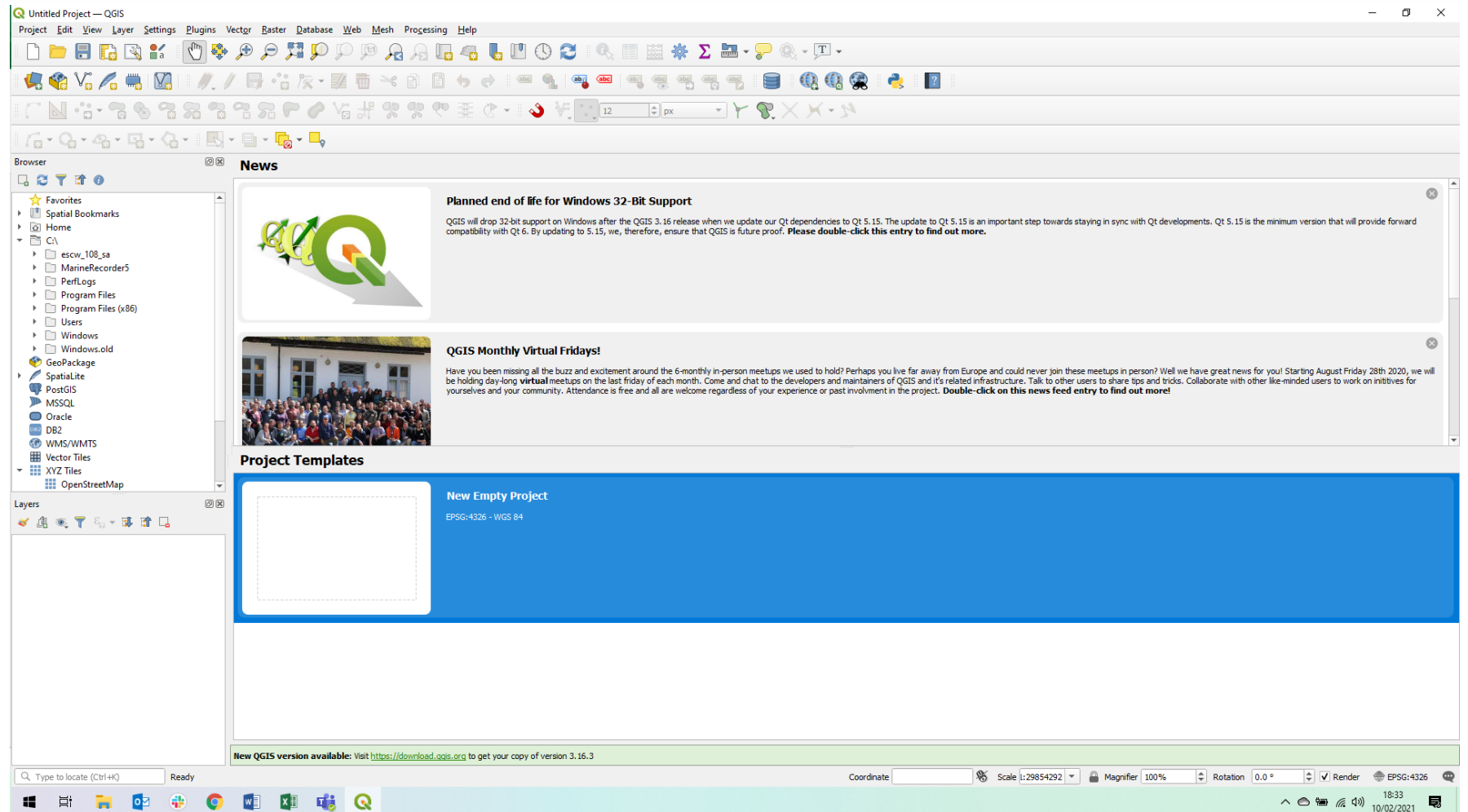
QGIS is a geographic information system. It is **free** and **open source**, making it accessible to anyone with the internet to download it and a computer that can run it. For this reason, it has been chosen for this tutorial, however there are other GIS software packages out there.

See <https://www.qgis.org/en/site/forusers/index.html#trainingmaterial> to download QGIS, view tutorials and learn more.

QGIS



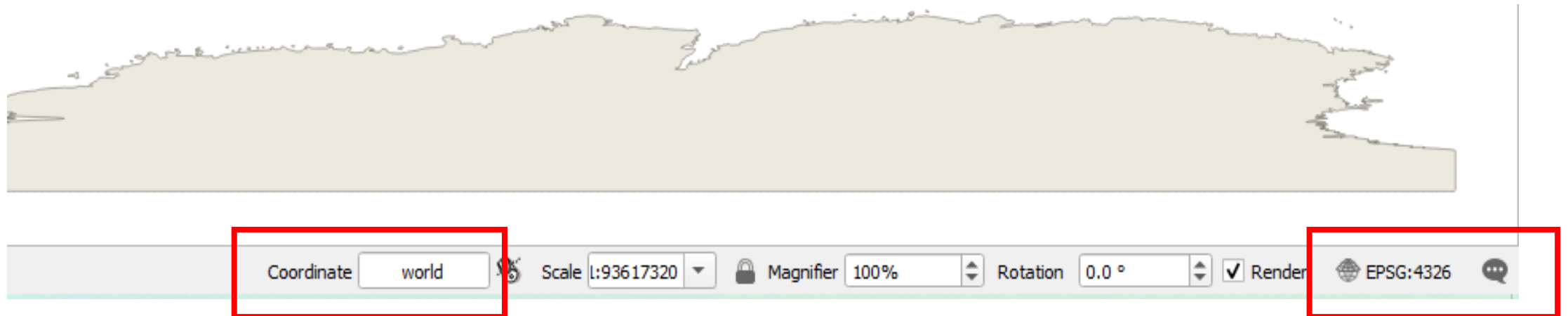
Open QGIS and
start a new
project



QGIS



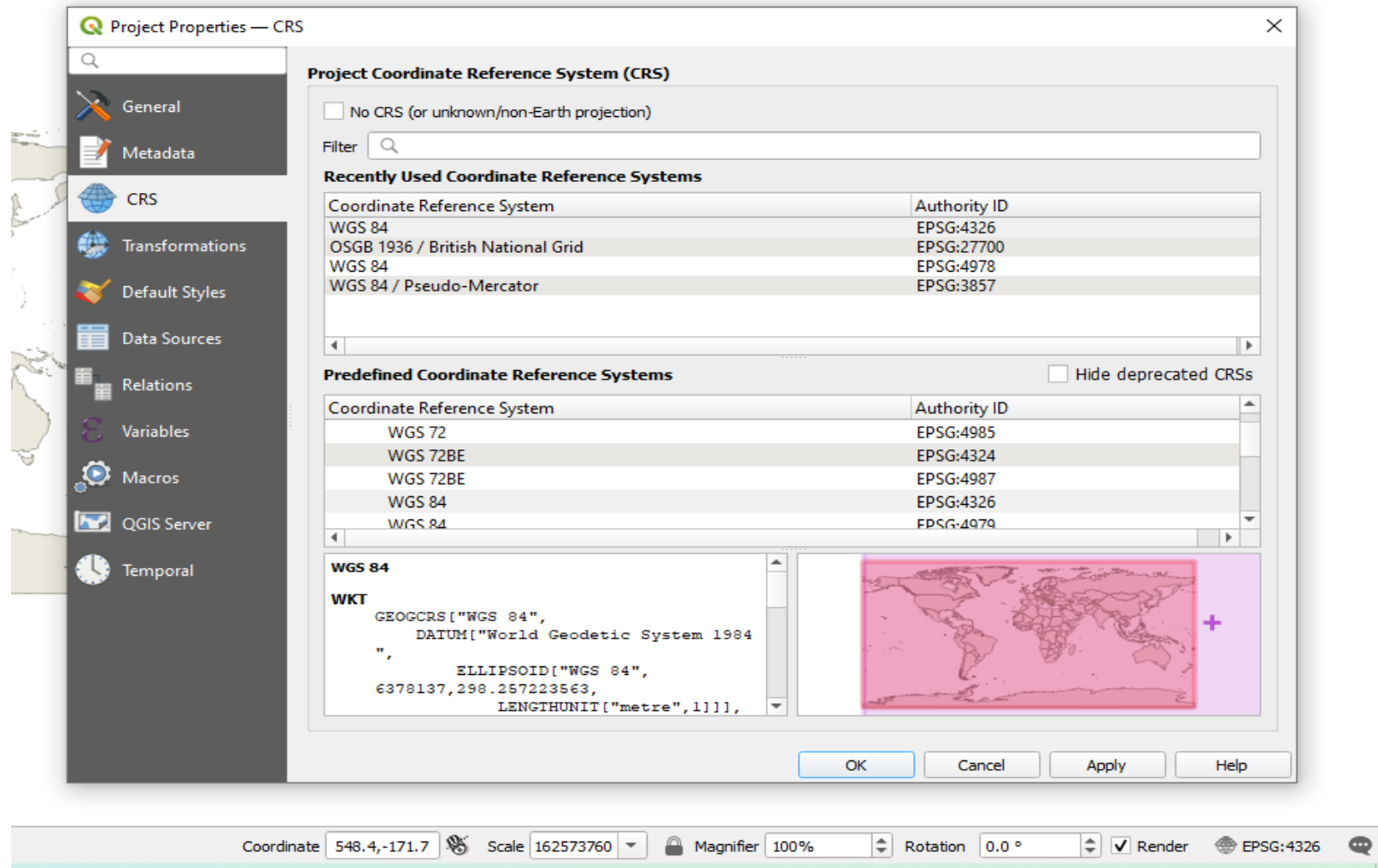
Type 'world' into the coordinate box at the bottom and hit enter. Check the coordinate reference system (CRS) in the bottom right where the half dome/ cone symbol is- WGS 84 EPSG: 4326 is often a good bet.



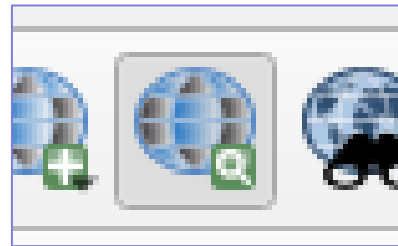
QGIS



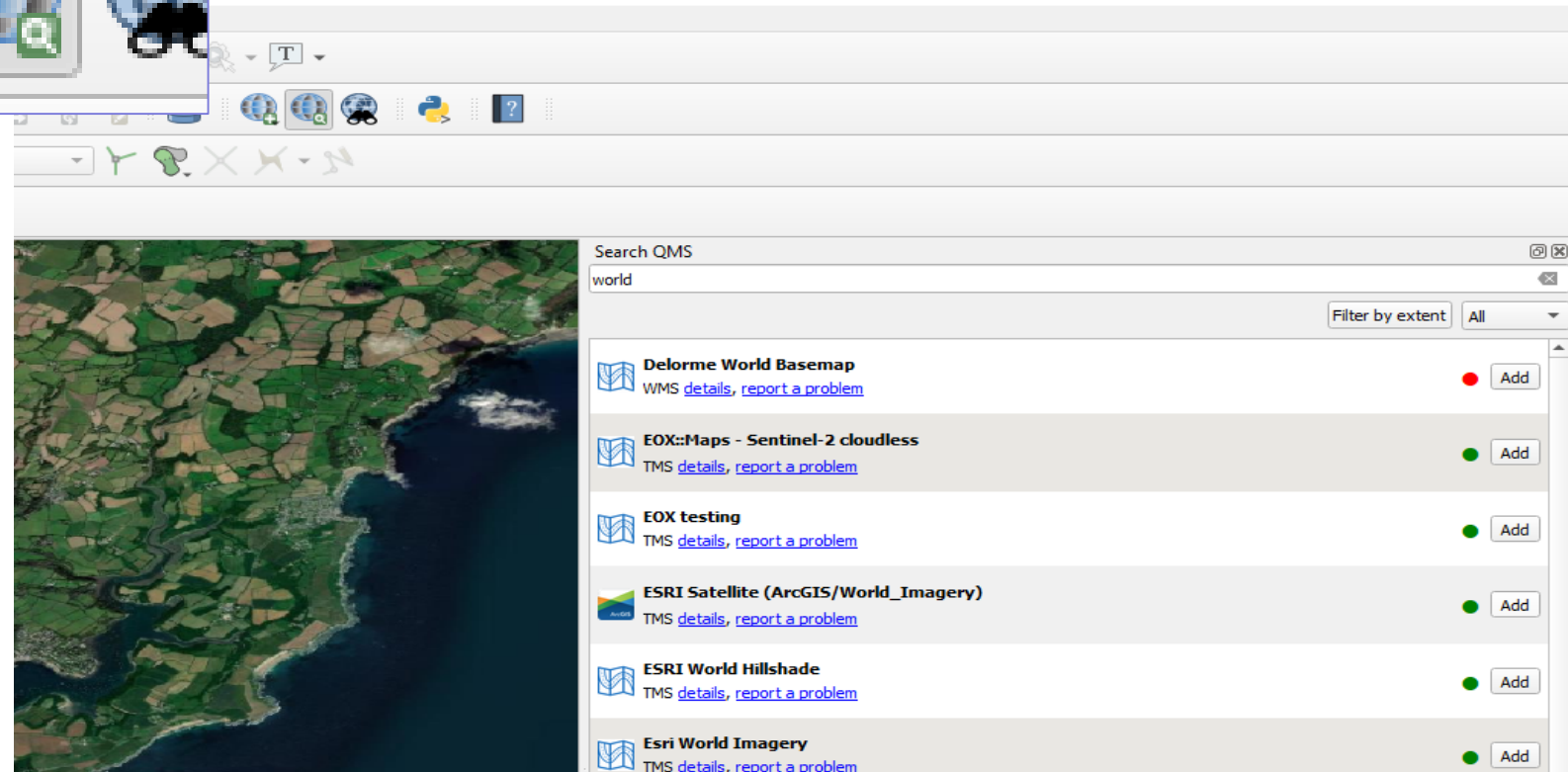
To change the coordinate reference system, click on the bottom right where it says what CRS is being used. It will bring up a window where you can search and apply for the correct one for your project.



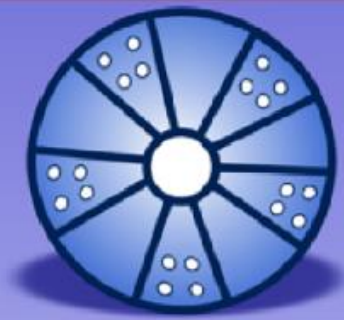
QGIS



To add more detailed map layers, click on the globe with a magnifying glass symbol in the toolbar at the top of the screen. You can use a keyword search to select different types of map, view details about the map layer like its CRS and select it for the map.



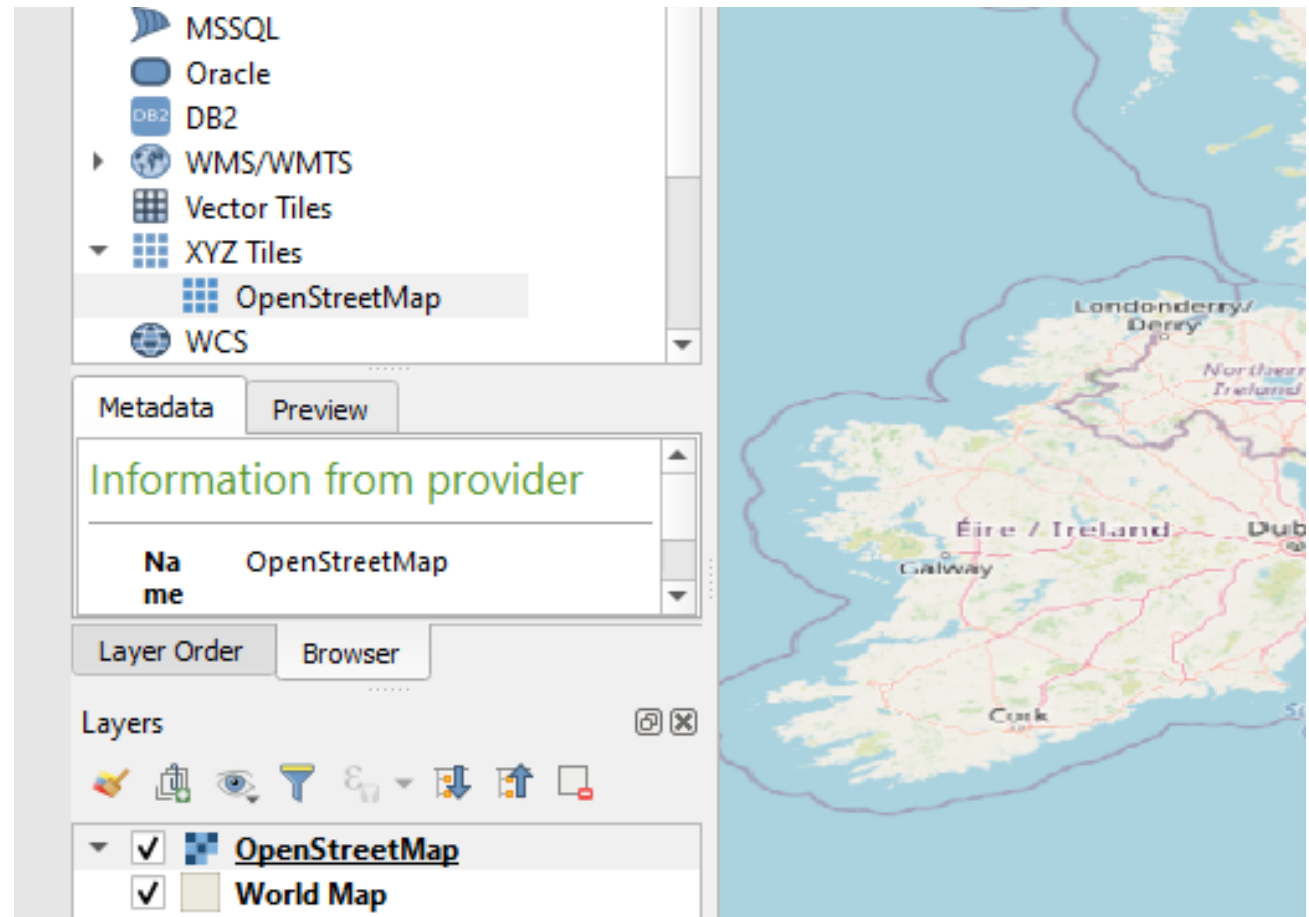
QGIS



You can also select XYZ Tiles from the left hand options box and double click on OpenStreetMap

You can rearrange layers by clicking and dragging things in the 'layers' box into different orders.

Make sure the layers you want on top are at the top of the list.





Importing data into QGIS

There are a few different formats of files that you can download online for use in QGIS and other GIS software. The following slides will cover a few file formats that can be downloaded from the DASSH Geoserver as examples. Some of these formats will be offered by other data portals, too. Think about what format is easiest for you to use, and works best in your project.

Generally, if you are creating a map, the outcome of using these different formats will be similar, if not the same. If given a choice between different file formats just go with what is most easy for you and don't worry about trying a few types out to see what works best for your project.

This will cover...

Text and CSV files

Shape Files

GeoJSON

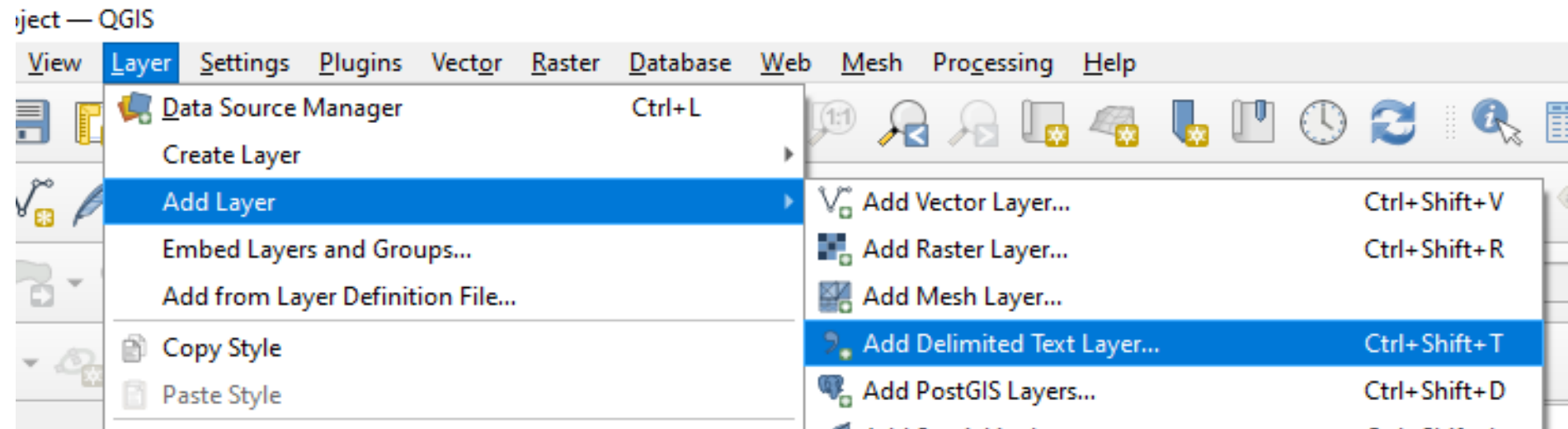


Importing data into QGIS

Please see the slides for 'Where can I find publicly available biodiversity data?' for a guide for how to access the DASSH Geoserver and download data.

Those slides also cover accessing other data portals offering biodiversity data. This is a generic tutorial that can apply to data from any portal that offers the file formats used in these examples.

CSV/ Text file



To add layers from a CSV or text file

Select Layer> Add Layer> Delimited Text Layer

CSV/ Text file layers



Select the input file by clicking the three dots by the File Name box and navigating to the CSV you wish to use. To note, you can also do this with your own text files of coordinates if they are laid out in columns, for example, if you have copied columns of coordinates from excel and pasted them into Notepad.

Use file format to tell QGIS how to read the file and separate out the data in the file format box. You can select CSV, or you can tell it what to look for in the document to separate out the columns properly

▼ **File Format**

☒ CSV (comma separated values)

☐ Regular expression delimiter

☐ Custom delimiters

▼ **File Format**

☐ CSV (comma separated values)

☐ Regular expression delimiter

☒ Custom delimiters

☐ Tab

☐ Semicolon

Quote

☐ Colon

☒ Comma



CSV/ Text file layers

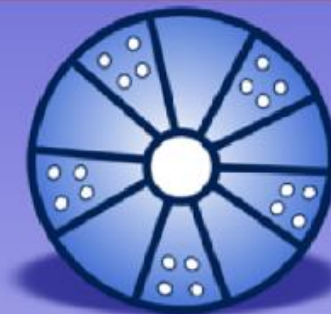
Check the file in excel so you know how the columns should be laid out, and don't be afraid to click through the different options and see how they look.

You can check at the Sample Data box at the bottom to see how QGIS is interpreting the document.

Sample Data

	FID	survey_code	survey_name	abstract	project_code	metadata_url	originator	dataset_owner
1	combined_data.fid--4647908f_178114efe5c_-1cb	DASSHDT00000337	2011 Marine Biological ...	A SHARC and MBA members run timed species surv...	DASSHSE00000046	https://portal...	45: Marine Biological Associ...	45: Marine Biological Asso...
2	combined_data.fid--4647908f_178114efe5c_-1ca	DASSHDT00000337	2011 Marine Biological ...	A SHARC and MBA members run timed species surv...	DASSHSE00000046	https://portal...	45: Marine Biological Associ...	45: Marine Biological Asso...
3	combined_data.fid--4647908f_178114efe5c_-1c9	DASSHDT00000237	1998-2003 Stentiford et ...	A collection of Non-Native Species sightings from G...		https://portal...	GD Stentiford	GD Stentiford
4	combined_data.fid--4647908f_178114efe5c_-1c8	DASSHDT00000070	2014 Marine Biological ...	Timed searches undertaken by the Marine Biological ...		https://portal...	45: Marine Biological Associ...	45: Marine Biological Asso...

CSV/ Text file layers



The latitude and longitudinal data should be in separate columns in the Sample Data box if you have selected the correct options in File Format.

Select the latitudinal and longitudinal columns in the Geometry Definition drop down boxes.

QGIS may already populate this for you, but double check it is correct.

When you are done, click Add and close the box.

Geometry Definition

☒ Point coordinates
☐ Well known text (WKT)
☐ No geometry (attribute only table)

X field: longitude
Y field: latitude
Z field:
M field:
DMS coordinates: ☐
Geometry CRS: EPSG:4326 - WGS 84

Layer Settings

☐ Use spatial index
☐ Use subset index
☐ Watch file

Sample Data

	event_code	latitude	longitude	date	time	occ_code	taxon
1	DASSHDT00000...	50.328031	-4.1231084	2011-11-26	12:30:00	DASSHDT00000337_SE_0011_107451	Eriocheir sinens
2	DASSHDT00000...	50.3287385	-4.1220987	2011-11-26	12:30:00	DASSHDT00000337_SE_0026_107451	Eriocheir sinens
3	DASSHDT00000...	50.542778	-3.5546755	2003-07-01		DASSHDT00000237_SE_06_107451	Eriocheir sinens
4	DASSHDT00000...	50.313777	-4.052048	2014-04-29		DASSHDT00000070_SE_10_107451	Eriocheir sinens

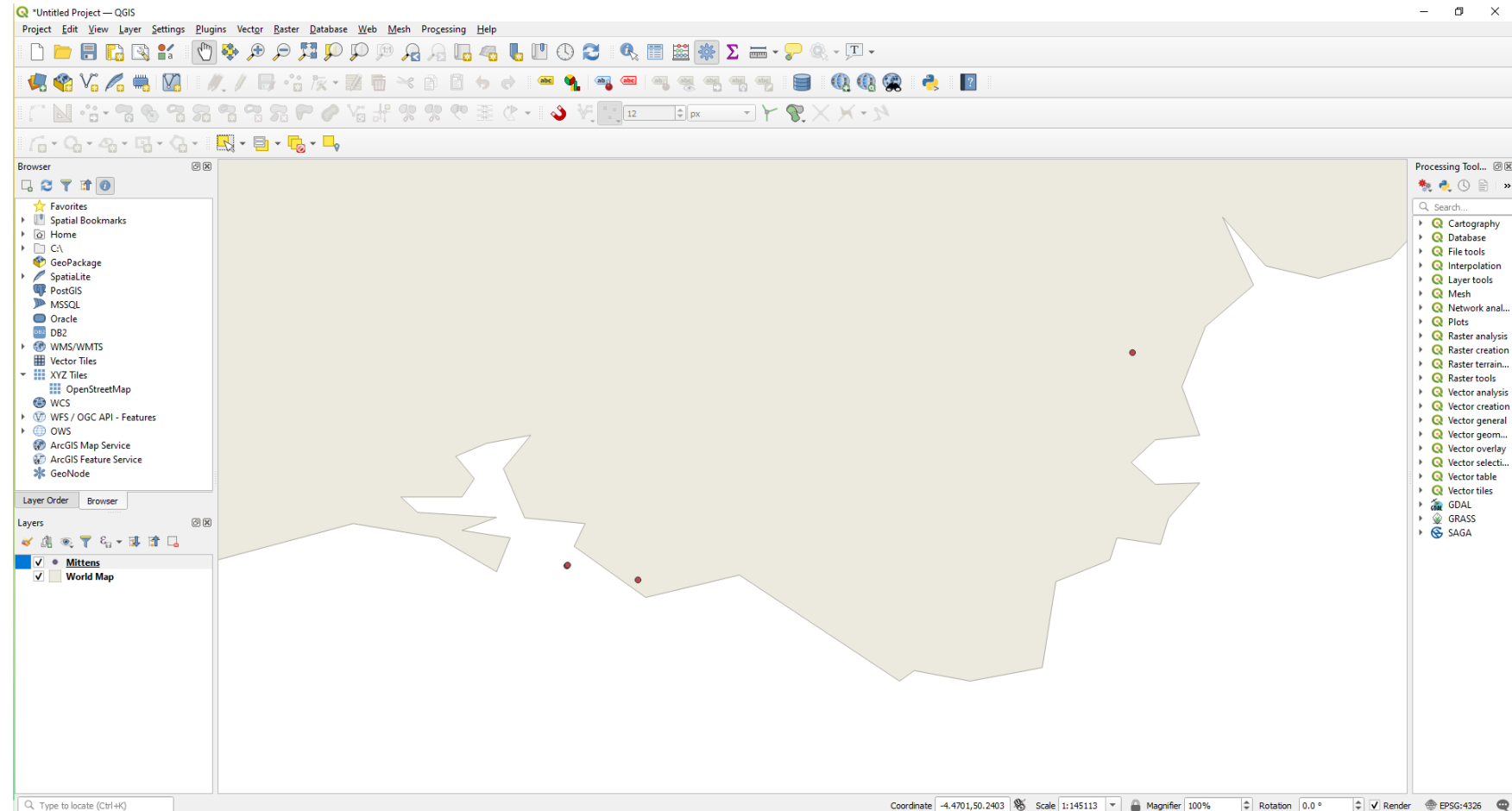
Close Add Help

Checking your map layer



Look in the layers box in the bottom left. Right click on the layer you just created, and select the option 'Zoom to Layer'. Check that the points are where you expect them to be from the map on the DASSH records search. If not, you may have got the latitude and longitude the wrong way around and should remake the layer.

You can rearrange layers by clicking and dragging things in the 'layers' box into different orders.



Checking your map layer



You can use the Identify Feature tool in the top toolbar, then click or click and drag to draw boxes around points of interest. Information about the points will appear in the Identify Results box. Make sure you have clicked on the layer you want to check first in the Layers box, to select it out.

Feature	Value
▼ Mittens [3]	
survey_name	2011 Marine Biological Association of the UK (MBA) Bovisand Surveying Habitats and Researc...
▶ (Derived)	
▶ (Actions)	
FID	combined_data.fid--4647908f_178114efe5c_-1cb
survey_code	DASSHDT00000337
survey_name	2011 Marine Biological Association of the UK (MBA) Bovisand Surveying Habitats and Researc...
abstract	A SHARC and MBA members run timed species survey for non-native species at Bovisand, De...
project_code	DASSHSE00000046
metadata_url	https://portal.medin.org.uk/portal/start.php#details?tpc=010_5f5c911fae1197ed87f2ad65dba2ea
originator	45: Marine Biological Association of the United Kingdom (MBA)
dataset_owner	45: Marine Biological Association of the UK (MBA)
licence	Public access
start_date	2011-11-26
end_date	2011-11-26
event_code	DASSHDT00000337_SE_0011
latitude	50.328031

Mode: Current Layer

View: Tree

Help












Coordinate: -4.854, 50.497 Scale: 1:244103 Magnifier: 100% Rotation: 0.0 ° Render: ☒ EPSG:4326

Shape file



If you download a Shape File, you will download a ZIP file. Extract the contents and save them somewhere sensible under a name you will be able to find later.

In the DASSH Geoserver, the files you download will be called **combined_data** and **fullflat**, depending on which of our databases each particular dataset is stored in.

fullflat (1)							
Compressed Folder Tools							
PC > Downloads > fullflat (1)							
Search fullflat (1)							
Name	Type	Compressed size	Password ...	Size	Ratio	Date modified	
 combined_data.cst	CST File	1 KB	No	1 KB	0%	08/03/2021 09:46	
 combined_data.dbf	DBF File	2 KB	No	17 KB	92%	08/03/2021 09:46	
 combined_data.prj	PRJ File	1 KB	No	1 KB	40%	08/03/2021 09:46	
 combined_data.shp	SHP File	1 KB	No	1 KB	52%	08/03/2021 09:46	
 combined_data.shx	SHX File	1 KB	No	1 KB	50%	08/03/2021 09:46	
 fullflat.cst	CST File	1 KB	No	1 KB	0%	08/03/2021 09:46	
 fullflat.dbf	DBF File	2 KB	No	7 KB	70%	08/03/2021 09:46	
 fullflat.prj	PRJ File	1 KB	No	1 KB	40%	08/03/2021 09:46	
 fullflat.shp	SHP File	1 KB	No	1 KB	76%	08/03/2021 09:46	
 fullflat.shx	SHX File	1 KB	No	1 KB	76%	08/03/2021 09:46	
 wfsrequest	Text Document	1 KB	No	1 KB	21%	08/03/2021 09:46	

Shape file

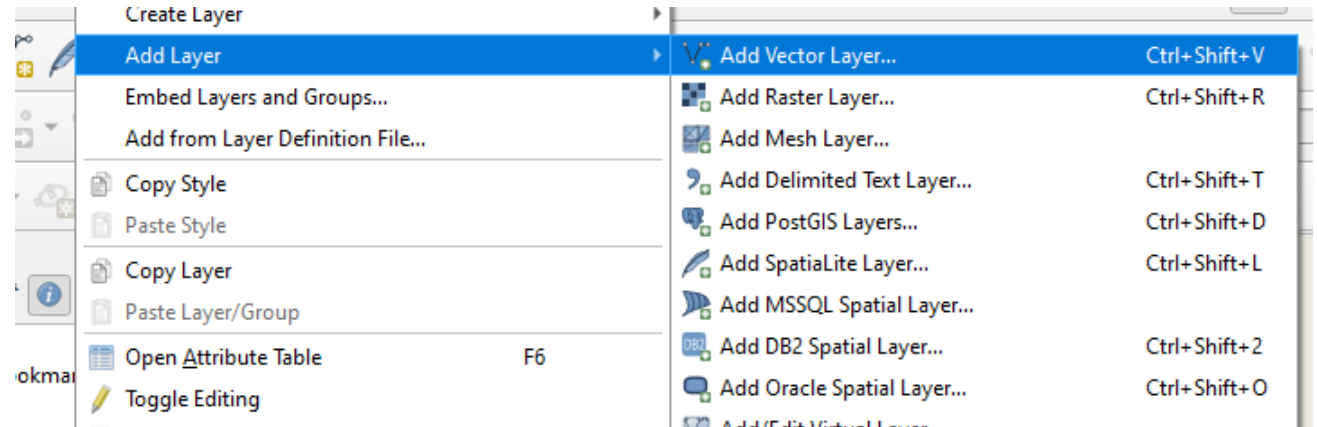


Select

Layer > Add Layer > Add Vector Layer

Use the button with three dots in the Source box to navigate to your download. Select combined_data.shp.

(if the map layer doesn't look right later, retry this step and select fullflat.shp).



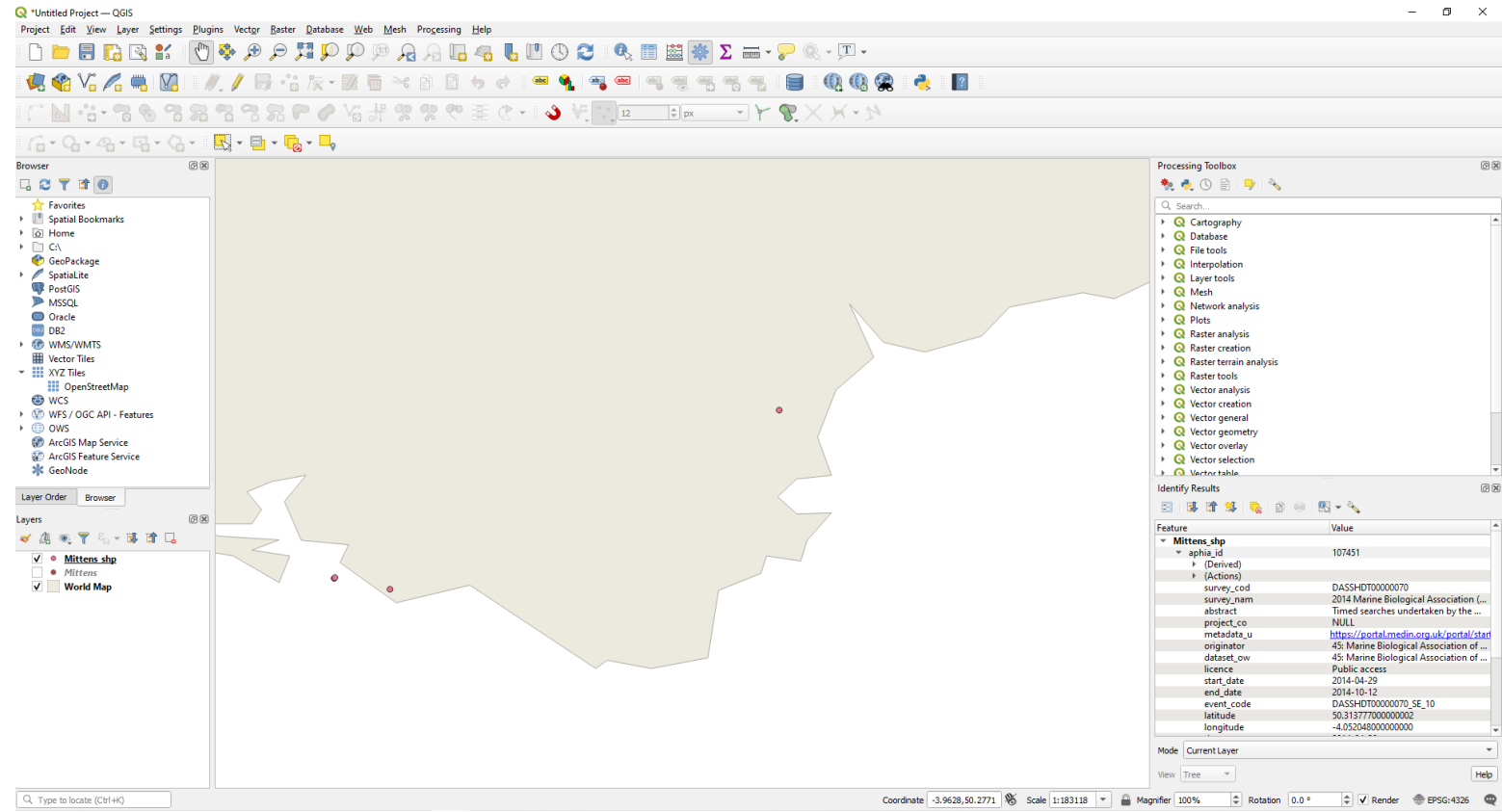
Name	Date modified	Type	Size
combined_data.cst	08/03/2021 12:54	CST File	1 KB
combined_data.dbf	08/03/2021 12:54	DBF File	17 KB
combined_data.prj	08/03/2021 12:54	PRJ File	1 KB
combined_data.shp	08/03/2021 12:54	SHP File	1 KB
combined_data.shx	08/03/2021 12:54	SHX File	1 KB
fullflat.cst	08/03/2021 12:54	CST File	1 KB
fullflat.dbf	08/03/2021 12:54	DBF File	7 KB
fullflat.prj	08/03/2021 12:54	PRJ File	1 KB
fullflat.shp	08/03/2021 12:54	SHP File	1 KB
fullflat.shx	08/03/2021 12:54	SHX File	1 KB
wfsrequest	08/03/2021 12:54	Text Document	1 KB

Shape file



Leave the automatic settings on and click Add.

As before, zoom to the layer and check the points are where you expect them to be.



GeoJSON



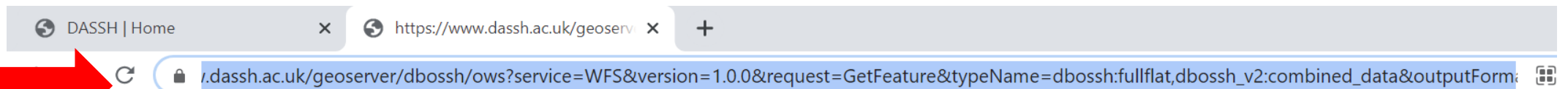
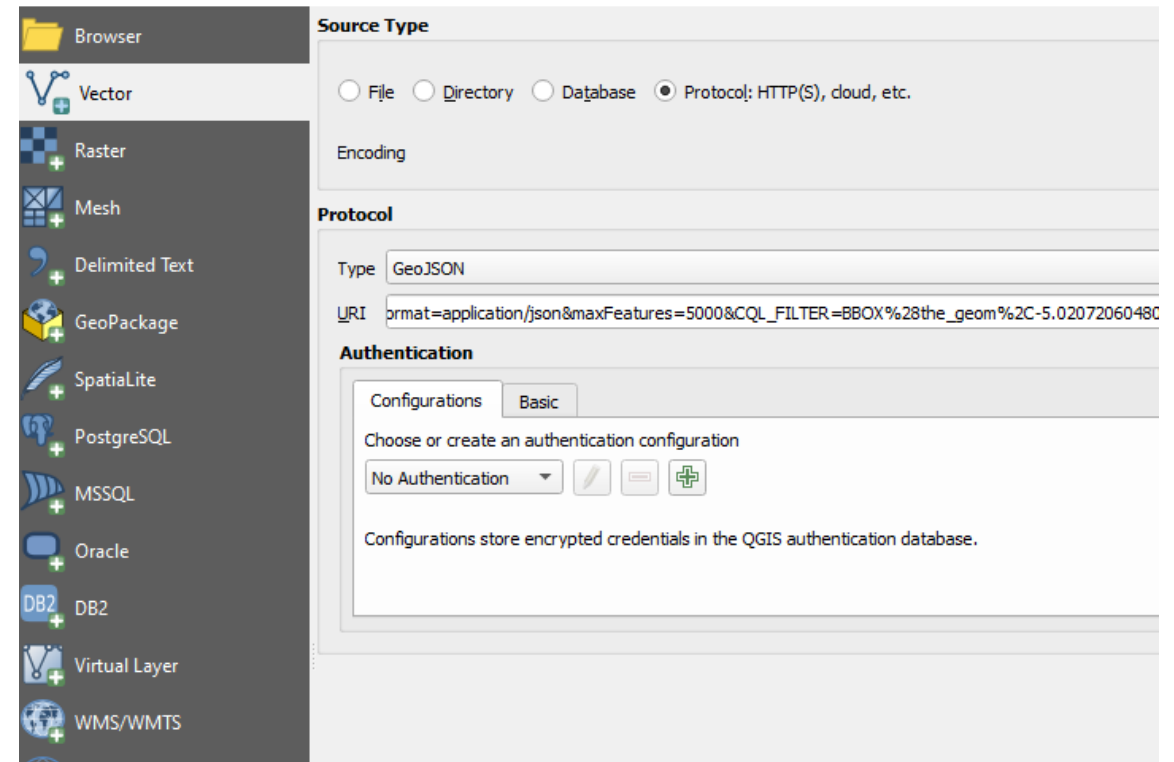
Select Layer> Add Layer> Add Vector Layer

Select the **Protocol** option in **Source Type**.

Select **GEOJSON** from the options in the **Protocol** box.

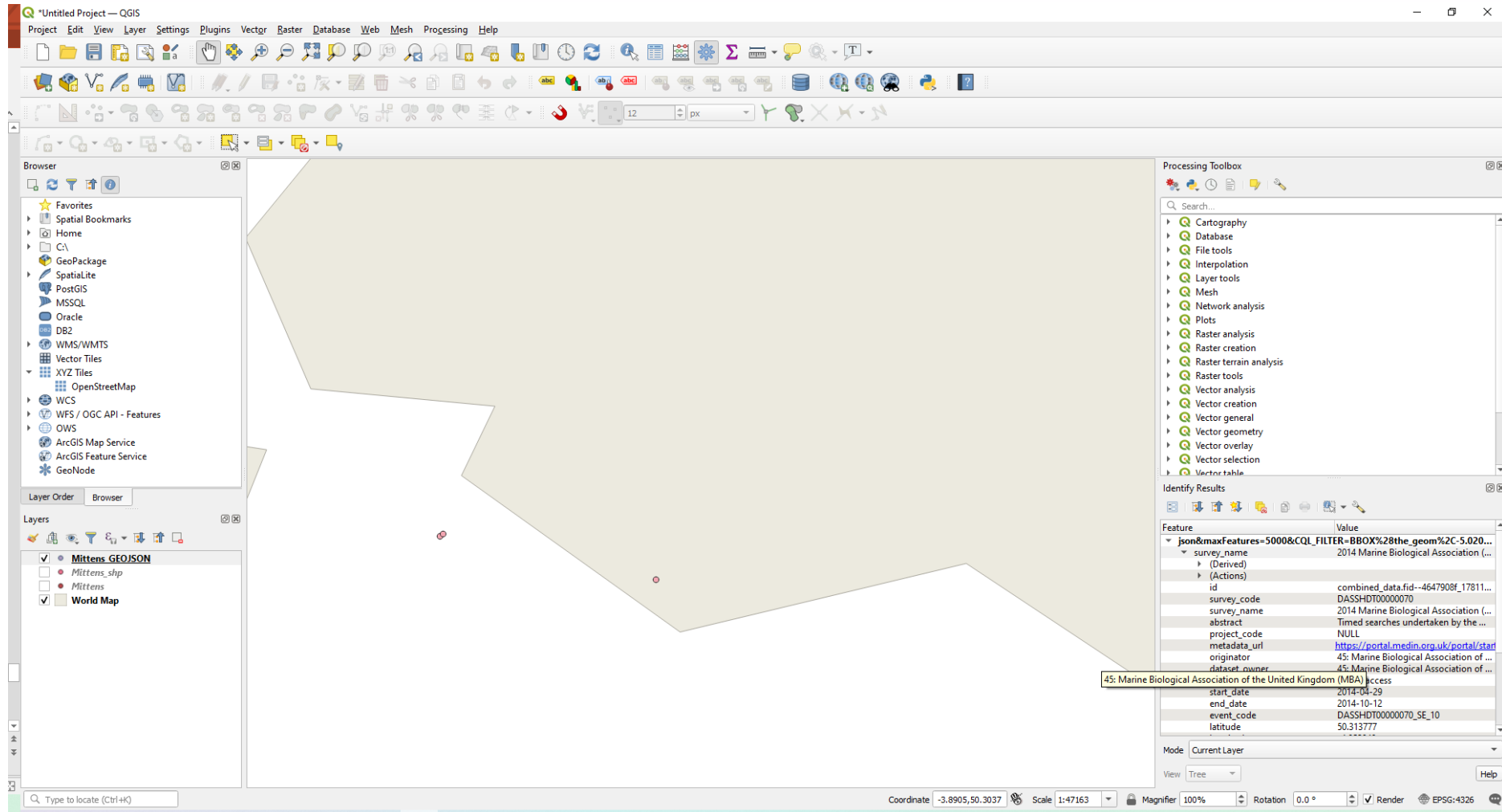
Copy and paste the **URI** from the web page that appears after you select to download a GeoJSON option (For example from the DASSH Geoserver), and paste it into the URI box in the Protocol section.

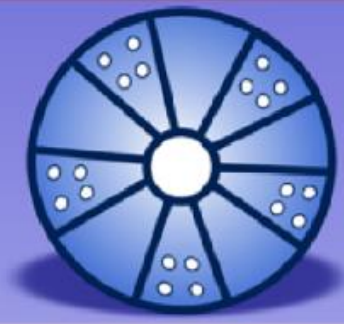
Select Add.



```
{"type": "FeatureCollection", "features": [{"type": "Feature", "id": "combined_data.fid--4647908f_178114efe5c_-1c6", "geometry": {"type": "Point", "coordinates": [-4.1231084, 50.328031]}, "geometry_name": "the_geom", "properties": {"survey_code": "DASSHDT00000337", "survey_name": "2011 Marine Biological Association Survey"}]}
```

GeoJSON





Connect to a Geoserver

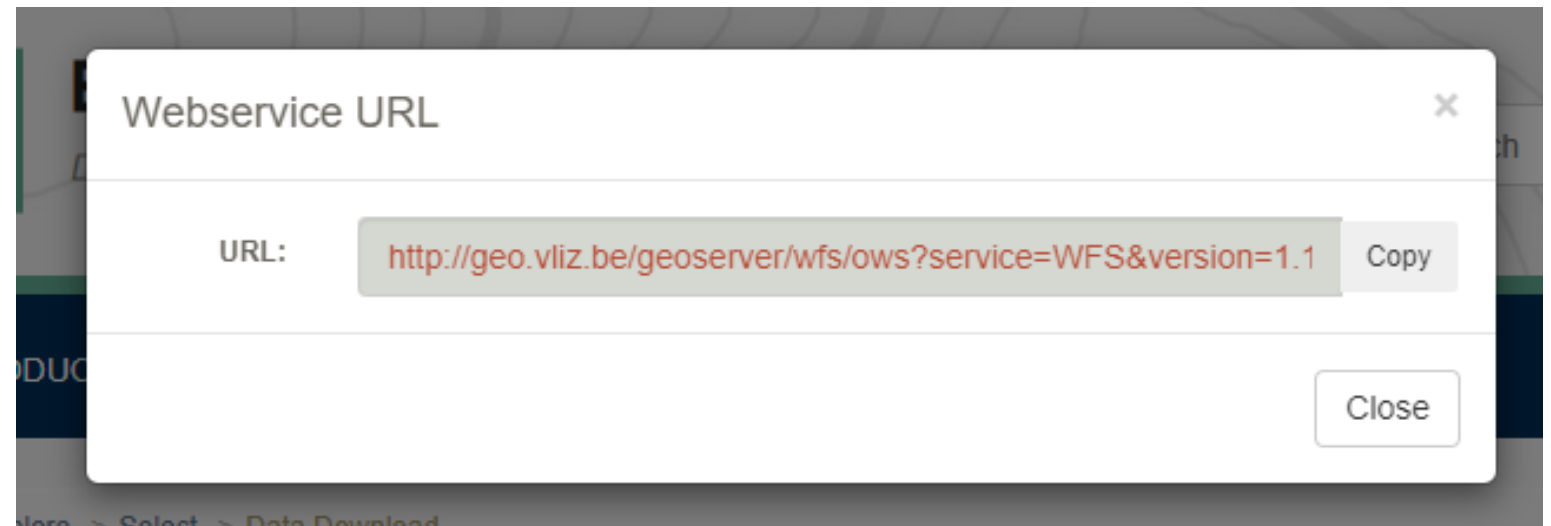
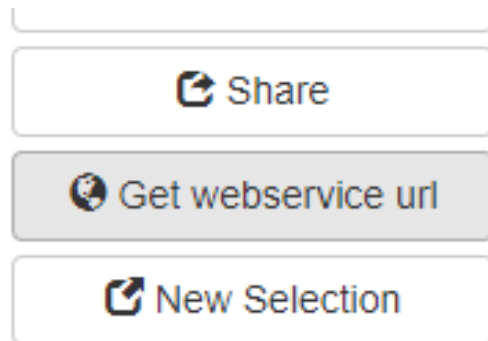
A Geoserver is an open-source server that can be used to share geospatial data.

You may be able to connect directly to a Geoserver with URL links made available on data portals.

Connect to a Geoserver



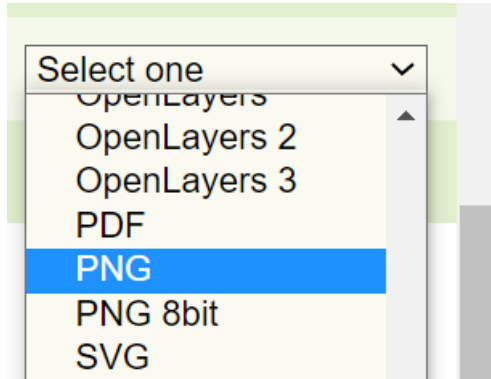
On EMODnet, for example



Connect to a Geoserver

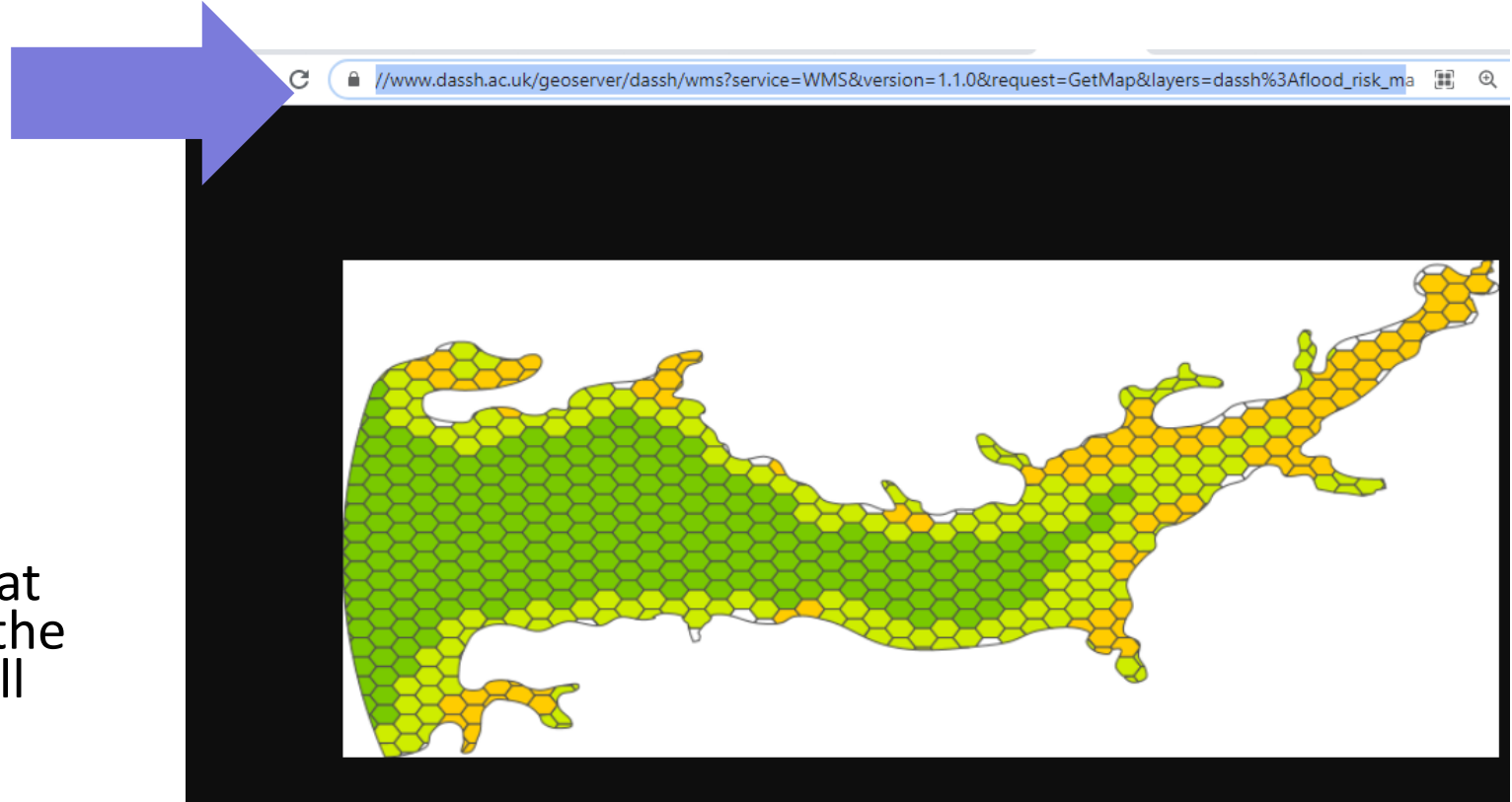


And the DASSH Geoserver

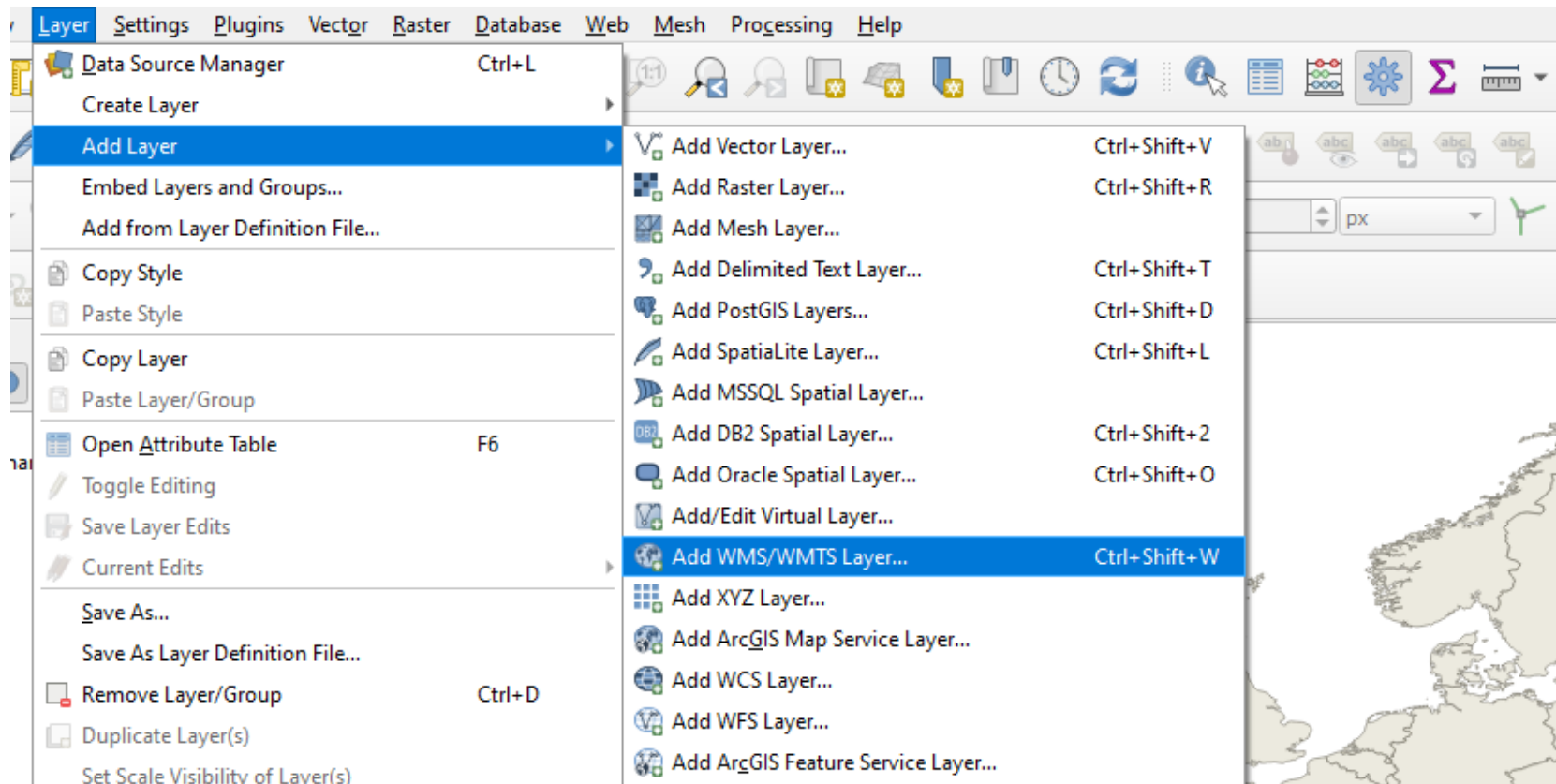


SVG
PNG
JPEG
GIF
AtomPub

These are formats that when selected from the DASSH Geoserver, will open a browser window. Copy the browser URL for a Geoserver link.

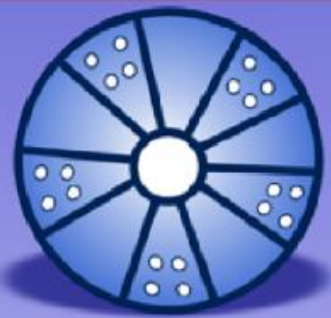


Connect to a Geoserver

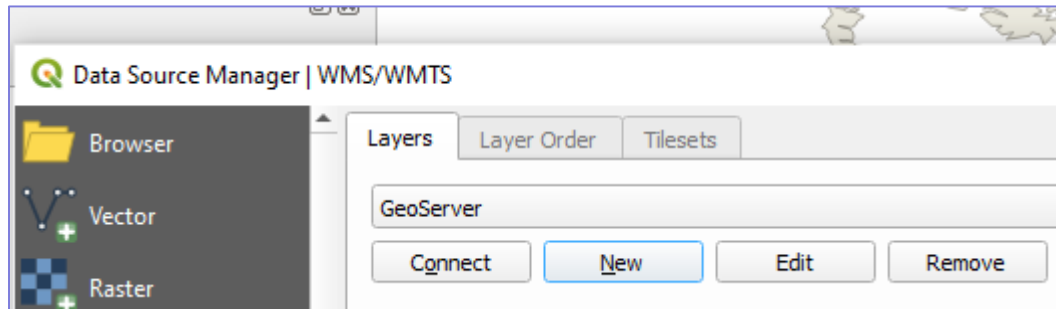


Select Layer> Add Layer> Add WMS/ WMTS Layer...

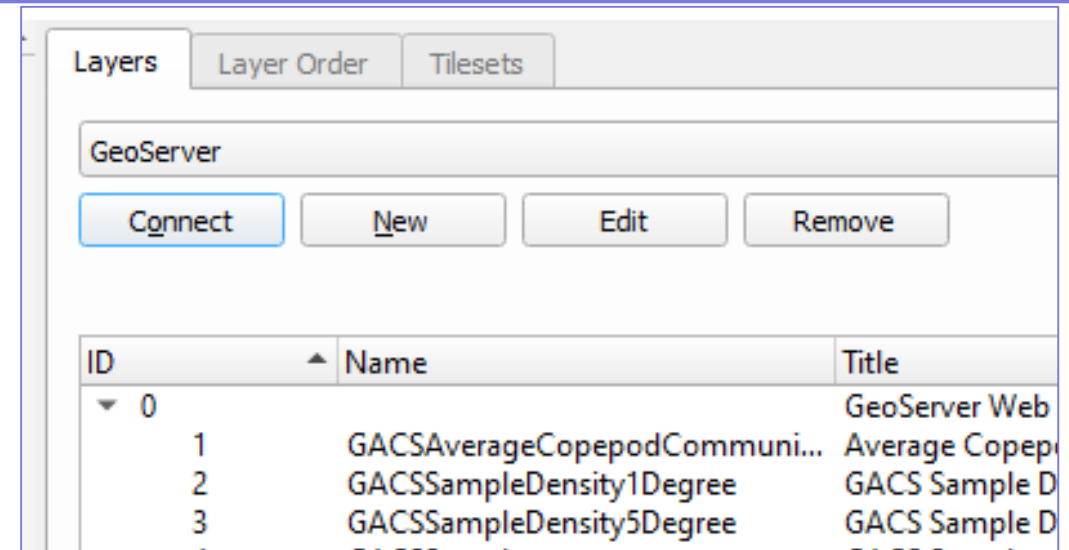
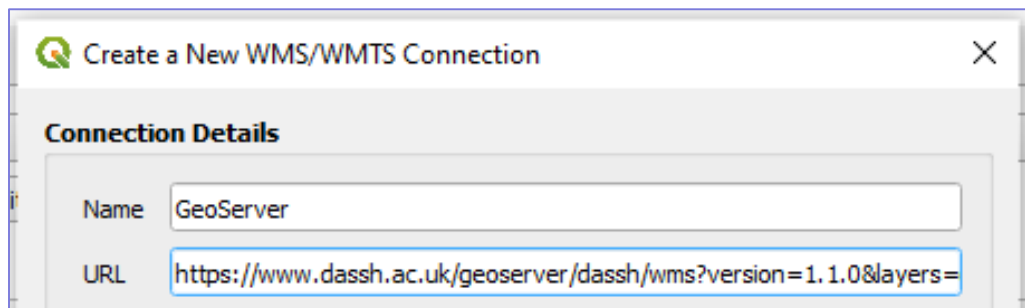
Connect to a Geoserver



Select New



Name the connection and insert the link you copied into the URL box. Click Ok.



Click Connect. The available layers on the Geoserver will appear below. Scroll and select the layer you want to add, select the Image encoding- PNG is a good option if are unsure. You can name the layer in the 'Layer Name' Box. Select Add when you are ready. Add new layers one by one, don't select a few layers and try to add them all at once.