Ecological Data Access

There are many platforms and sources of spatial data. Some would require credit and creating professional account and some are free to view and download.

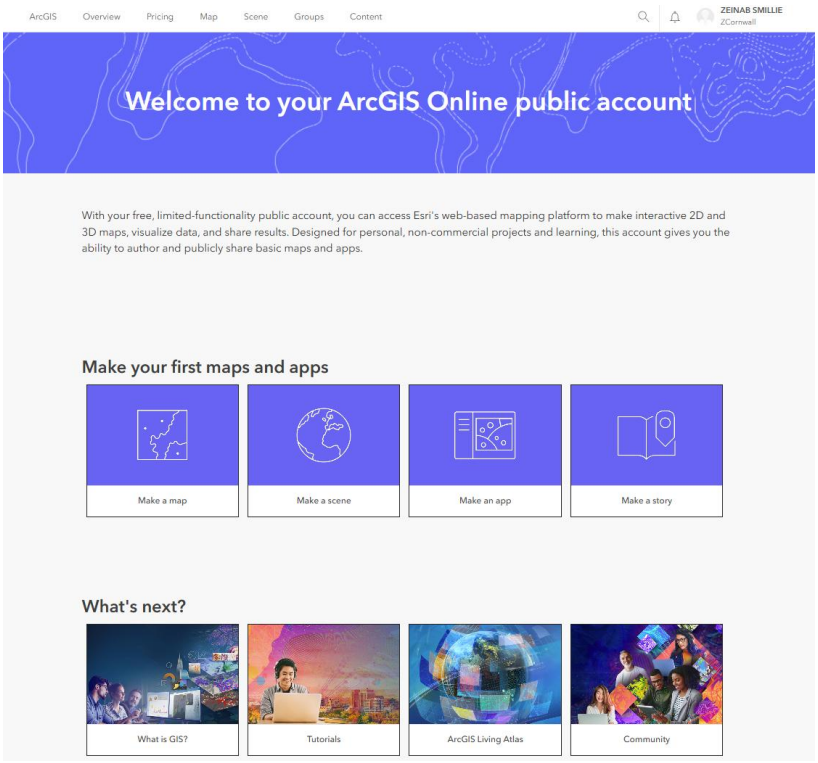
Esri is a leading organization in spatial and the creator of ArcGIS applications. ArcGIS software may requires thousands of pounds to access and use. However, Esri, creating an open-access platform enable users to browse various data that is created by different governmental bodies.

This conforms with the **Environmental Information Regulations 2004**, which requires public authorities to make environmental information available to the public upon request and encourages proactive publication. Also, the **Freedom of Information Act 2000** grants public access to information held by public authorities, including environmental data.

The **UK Government Open Data Policy** mandates that non-sensitive public sector datasets be published openly when possible, usually through platforms like data.gov.uk

Create a free account:

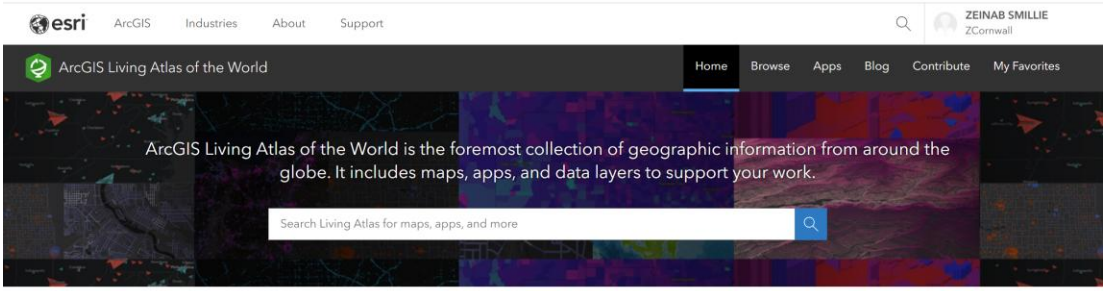
1. Visit this website: https://www.esri.com/en-us/arcgis/products/create-account
2. Scroll down and click on "Create a public account"
3. In the new window, fill the form with your information.
4. You should see the following message "An activation link has been sent to your email. Click the link in the email to complete account activation"
5. Go to your email and verify the link. This should take to the page where you create a password and a security question.
6. You should now see the ESRI page as below, showing various ESRI platforms and services

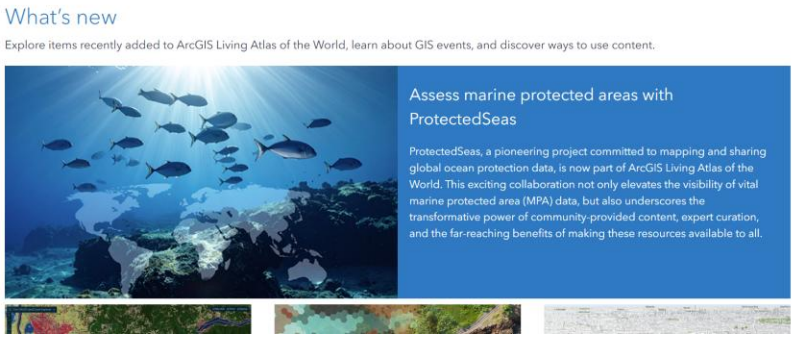


7. You may like to explore some of the windows and see what they offer. However, we will work on the Living Atlas for this week.

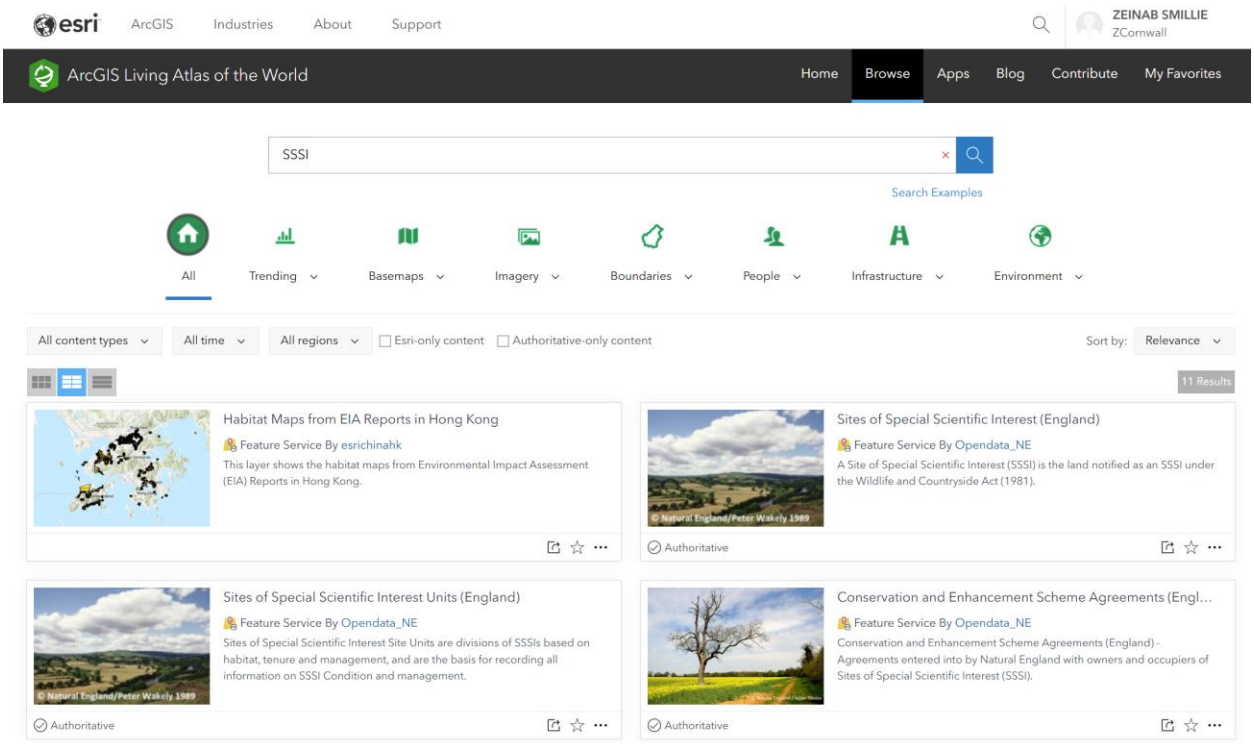
Access the Living Atlas Portal

1. Click on the "ArcGIS Living Atlas". This should take you to the following webpage:

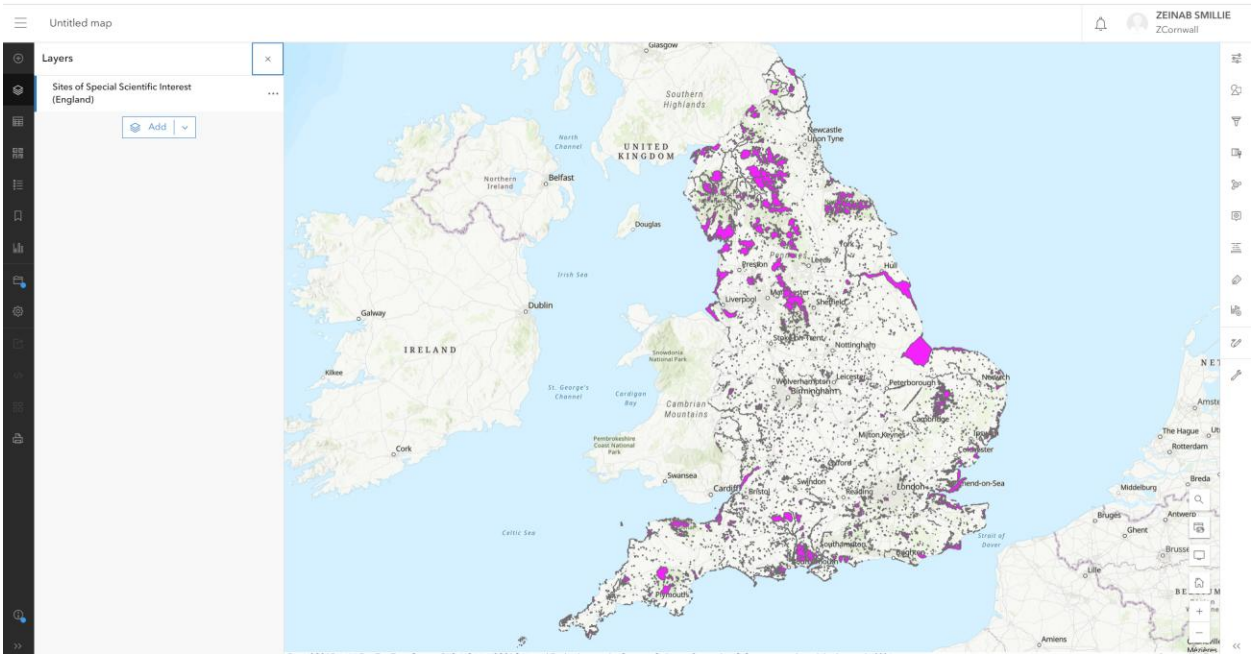




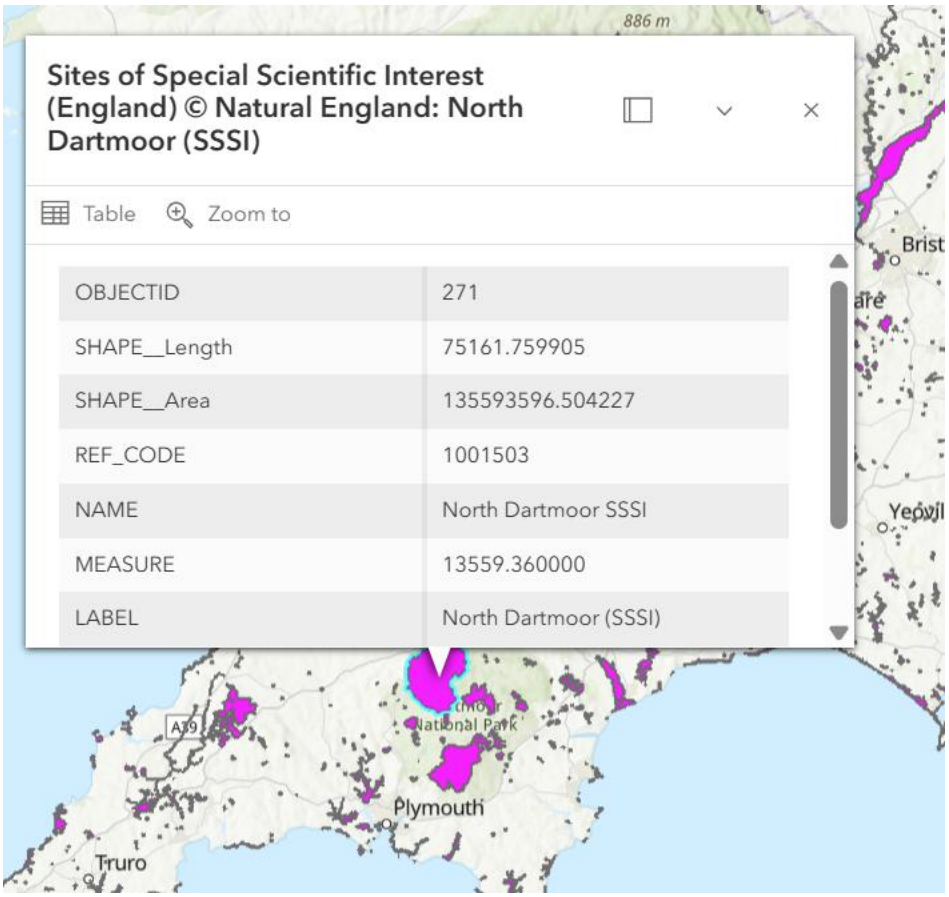
2. Search in this page for "SSSI". These are the sites of specific Scientific Interests.
3. This will give different option for relevant data.



4. However, we will focus on England for this exercise, so click on the data called "Sites of Special Scientific Interest (England)"
5. In the new window, you should see various information (metadata) about these data. Metadata is essential, as the data could be useless without its metadata.
6. Spend some time reading through and understanding what these data are. Who created them, when they were last updated, and any other information
7. Now click on "Open in Map Viewer" to see the map

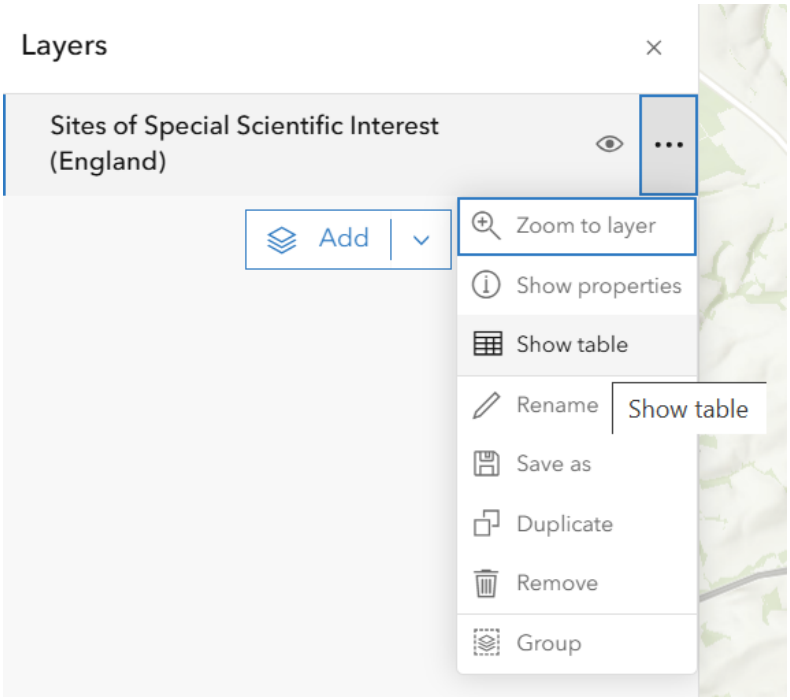


8. To zoom into an area, you may use the lens icon to the right or simply double-click on a location
9. Zoom to Cornwall and then click on the largest pink polygon you can see there (one click only).
10. You should see a pop-up window showing some more information about this polygon (shape)

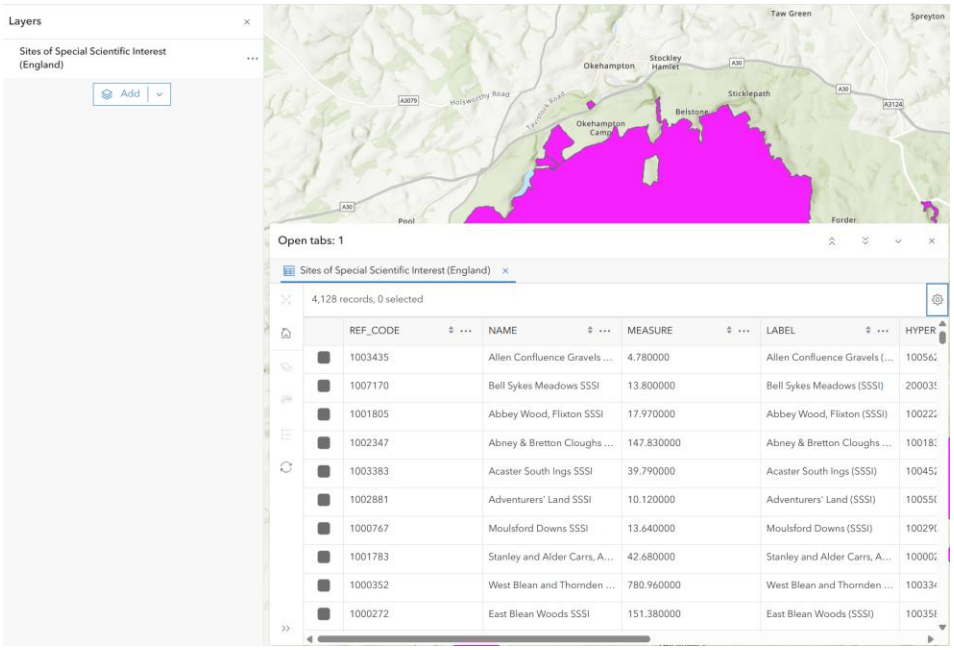


Question 1: What is this site called? What is the total area of this site?

11. Click on "Zoom to", this will zoom to this site only.
12. Go to the file name to the left and click on the 3-dots next to that name, then click on "Show table"



13. You should see a pop-window showing a table of all the sites on the map

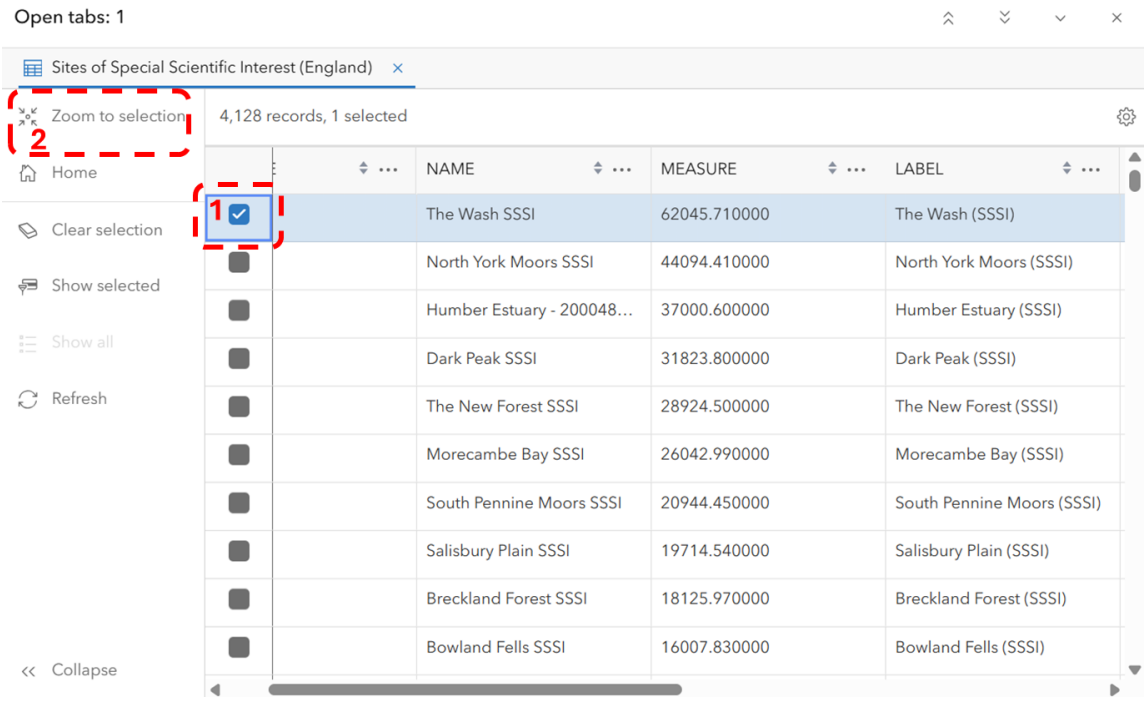


Question 2: How many SSSIs are in England?

14. To sort the sites according to their names, click on the column called "NAME". Whether this will be ascending or descending will depend on how many times you click on the column heading.
15. Now repeat this step, but this time for the column called "SHAPE_AREA", you may need to scroll more to the left in the table

Question 3: Can you figure out the name of the largest SSSI in England? Now you know what the largest SSSI is. Where is it located?

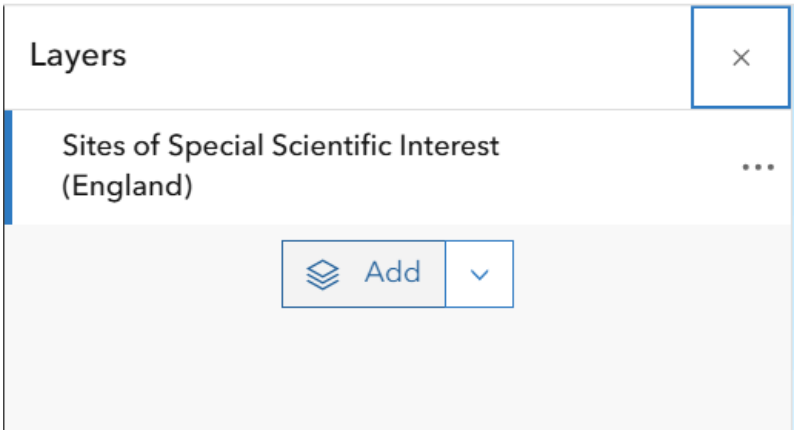
16. Tick the small box next to the site name to select and activate more information. Click on "Zoom to Selection"



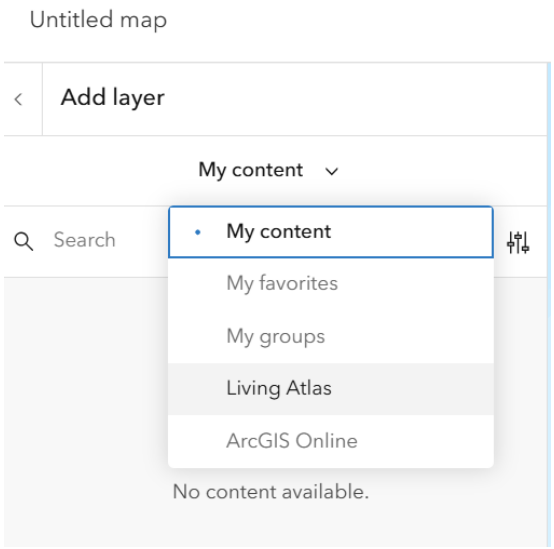
17. You should notice that the map changed. You can now close or minimise the table to view the map.
18. You can zoom out to see where it is located.
19. Now you have learnt basic map navigation, repeat the previous steps to observe other SSSIs.

Adding more GIS layers:

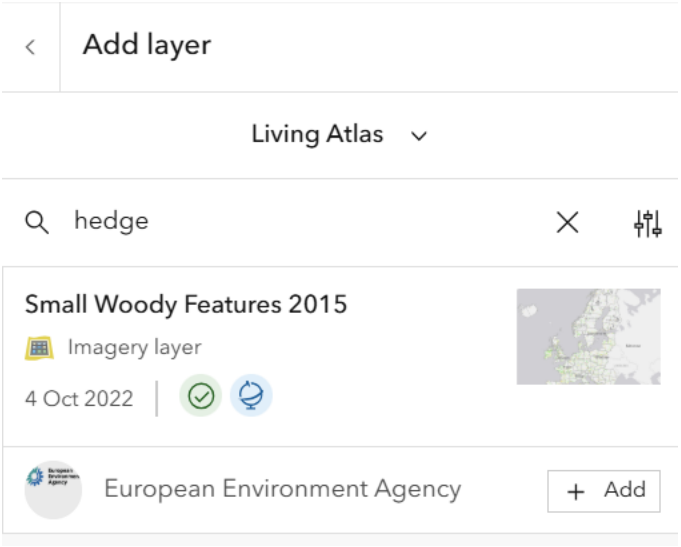
1. In the top left (contents menu) click on "Add"



2. In the new window, click on the small down arrow to view the options:



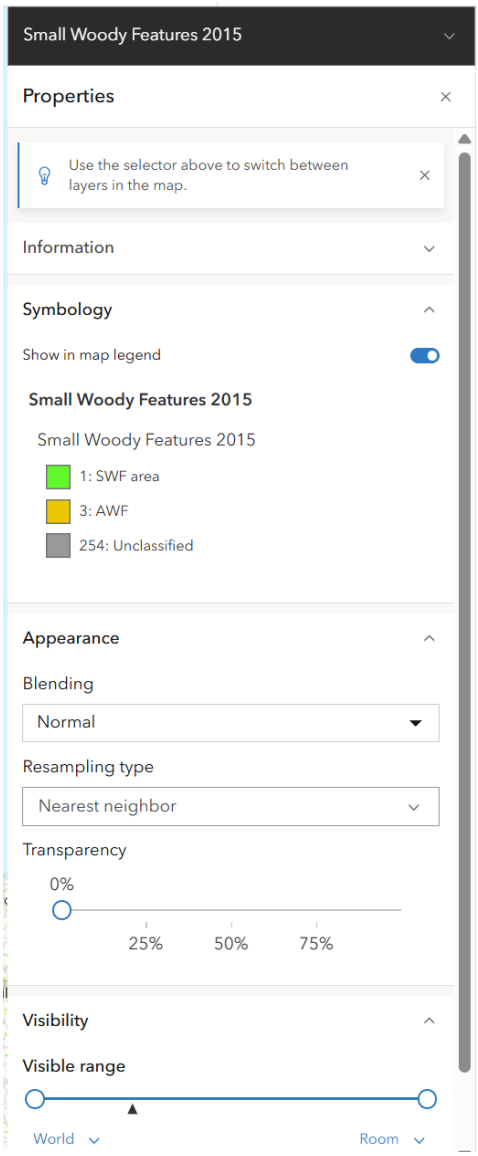
3. Select "Living Atlas"
4. Search for "hedge"



5. A layer will appear called "Small Woody Features 2015", Click "Add". It may take a few minutes to upload, as this layer covers the whole of Europe.
6. Click on the small arrow (next to Add Layer" to go back to the "Contents" window.
7. Now you should see two layers in your content.
8. Navigate the map to see how the two layers are stacked over each other "spatially"

Question 4: What do you think of the small woody features layer? How accurate do you think it is? If not that accurate, why? Think about the layer resolution.

9. Notice that you have another bar appearing to the right showing the layer properties



10. You may click on "Information" to learn more about this layer.
11. You can search for more layers, e.g.

- Invasive Plants
- Protected species
- Rivers

Now you have regional and global data at your fingertips, and for free, Enjoy!