

Delving Into the Database

Open the PBDB Navigator and spend some time getting comfortable with how it works:
<https://paleobiodb.org/navigator/>.

This web app allows you to browse the contents of the Paleobiology Database. The map shows the localities of fossils that are entered into the data base color-coded by age; the size of the dot corresponds to the number of collections (Figure 1).

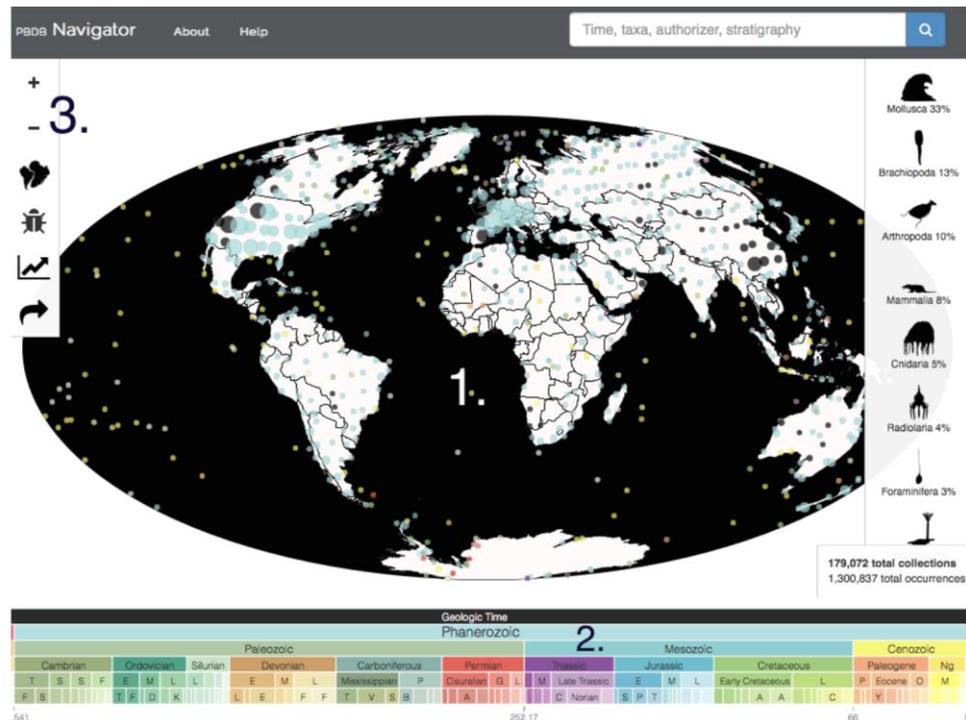


Figure 1

The Navigator consists of three parts:

1. Map (**CENTER**) showing continents with dots representing fossil occurrences. The color of these dots represents their geologic age. If you click on the dots, you can see all of the information on each site and the fossil species that occur there. Once you zoom in, you can use the mouse to click and drag the map around.

If you click on the map, it will zoom into that location. You can also use the plus or minus buttons in the toolbar (left side of the screen), or the scroll wheel on your mouse to zoom in and out

2. Geologic time scale (**BOTTOM**) showing the major eras, periods, and stages. Selecting any of the time units on time scale will restrict the data that is displayed to that time interval. Also,

double clicking on a time unit will zoom into that time unit showing finer subdivisions. Try it for the Cenozoic.

3. Tool bar (**LEFT**) showing the tools you can use to explore the database. These include:

	zoom in/out on the map
	reconstruct plate tectonic configurations for time interval (era or smaller) you are exploring
	narrow down which taxonomic group is plotted on map
	create a diversity curve for the occurrences currently plotted on map
	download the data (lat/long, geologic age, etc.) for the occurrences plotted on map

If you click on any time units in the geologic time scale, the occurrences displayed on the map will be restricted to those time intervals; if you click on a taxon on the right side, only the localities where that taxon is found will be shown. As you click on things (e.g. Paleozoic), they are added as search terms. The search terms are listed in the lower left corner of the map. You can clear them by clicking the X next to each one.

Note: Delving Into the Database instruction sheet is a modification of a lesson authored by Christian George. The original lesson is hosted on the Science Education and Resource Center at Carleton College website (<https://serc.carleton.edu/NAGTWorkshops/intro/activities/183735.html?>).