

Discover the unique mollusk fauna of the Black Sea

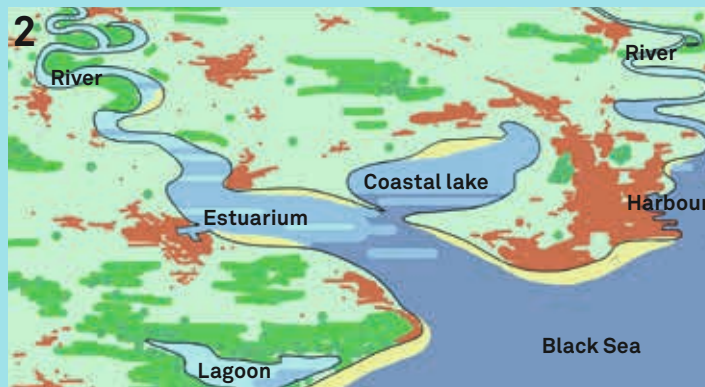


1 Our unique Black Sea shells

The Black Sea has a unique biodiversity including the endemic “Pontocaspian” mollusks. These Pontocaspian species evolved in low salinities of the Caspian and Black Seas over the past few million years. They occur nowhere else in the world! However, pollution, habitat destruction, climate change and invasive species are threatening these unique species. In order to improve conservation efforts we need more information on the distribution of the Pontocaspian species and the invasive species that threaten them. This is where we need your help.

4 You can help!

Are you going out to a local beach, harbor, estuary, lake or river? Take this leaflet with you! You can help us identify the presence of three Pontocaspian target species (*Monodacna colorata*, *Hypanis plicata*, *Dreissena bugensis*) and an invasive species (*Mytilopsis leucophaeata*) that is potentially harming our unique Pontocaspian species. Your observations help us to detect where healthy populations are living and where invasive species are a threat. By reporting sighting and photos of these species we can protect our unique biodiversity of the Black Sea region!

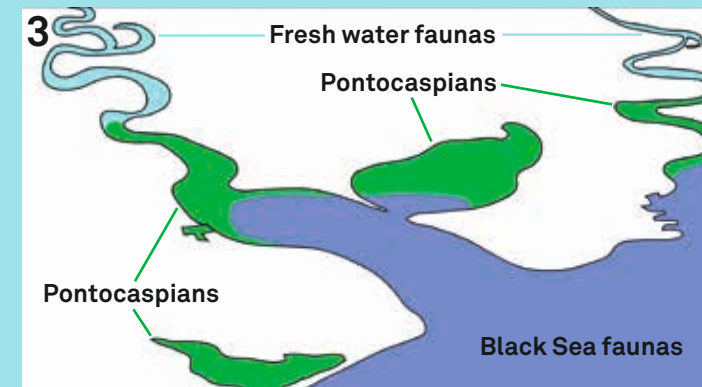


2 What shells are we looking for?

Pontocaspian species are rare, they live in lakes, rivers and estuaries in the coastal zone where the salinities are low. In this leaflet you will find ways to distinguish the Pontocaspian species from freshwater and marine species and from invasive species that threaten them. These destructive invasive species have come from as far as the Caribbean!

5 How to report

We need fresh material from the four species, so we are looking for specimens that still have the two valves attached. Please take a picture of the shells, record locality information (preferably GPS coordinates), date and species name (if known). Repeat the above for each species at a locality. At home, you can upload the pictures and information to the i-Naturalist portal (www.inaturalist.org) sending it directly to our scientists.



3 What do shells tell us?

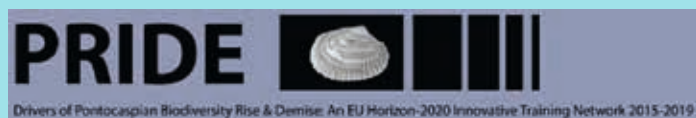
Shells can tell us a lot about the environmental conditions such as salinity, water movement and turbidity. They can also be used as indicators of pollution. Shells can be old. We are particularly interested in fresh shells so that we know environmental conditions and change in recent years.

6 Uploading your species

Create an account – Go to <www.iNaturalist.org> and sign up. Not all e-mail extensions are supported, in that case please use an alternative email account, e.g. Gmail.

To an observation – Go to <+Add observations>. Upload your picture, fill in the information in <Details>. You can add further details of the site, which will be useful to our scientists. Then go to the <Projects> tab and type “PRIDE” in the search field, press enter and select “PRIDE”. You will see PRIDE added at the bottom of the search field. If you only have one observation you must select the <Submit 1 observation> command. If you have several observations, go to <+Add> tab in the top left corner and select photo(s). After you select your picture a new window will appear and you repeat the same procedure. Finally, submit the observations by selecting the <Submit an observation> command.

With your contribution we will be able to update our distribution maps and identify areas for follow up action. Updated maps that include your observations will be posted on www.pontocaspian.eu



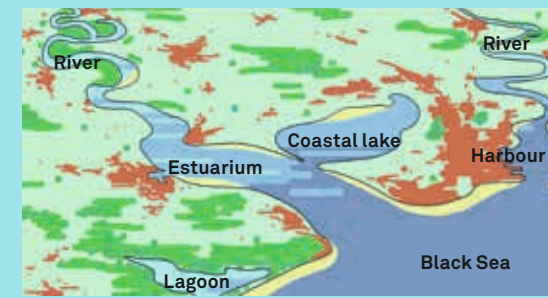
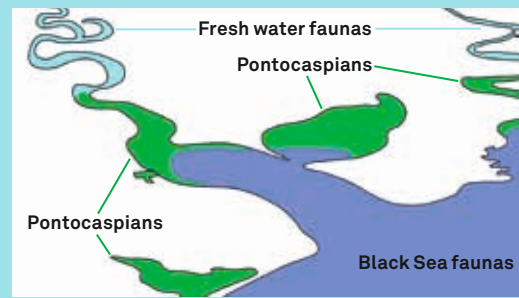
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Our Black Sea shells

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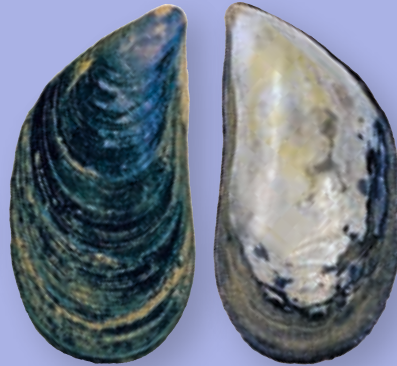


Black Sea



Cerastoderma edule

~ 1 cm



Mytilus galloprovincialis
(mussel)



Tritia reticulata

native

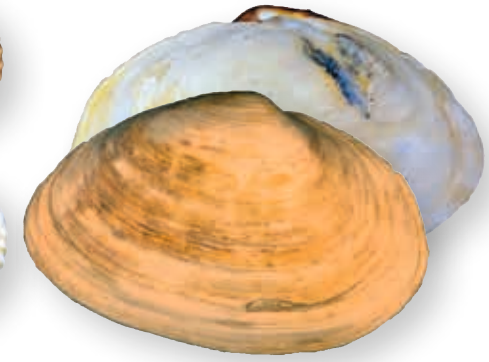
invasive



Rapana venosa



Anadara kagoshimensis



Mya arenaria

Estuarine-coastal lake



Monodacna colorata

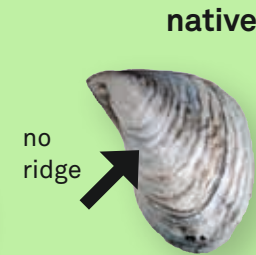
~ 1 cm



Hypanis plicata



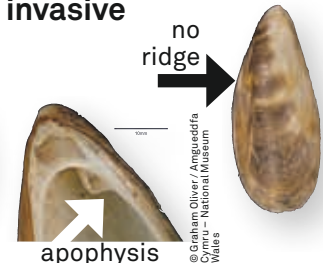
Cerastoderma glaucum



Dreissena bugensis

native

invasive



Mytilopsis leucophaea

Fresh water



Viviparus species
such as *Viviparus acerosus*

~ 1 cm



Pearly freshwater mussels
such as *Unio pictorum*



Dreissena polymorpha

native

invasive



Corbicula fluminea

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