

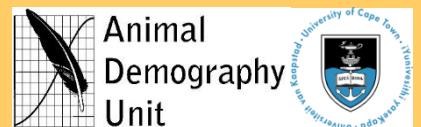


FishMAP

Digital Atlas of Africa's Freshwater Fishes

Team:

Jeremy Shelton (project coordinator)
Les Underhill ADU Director)
Olaf Weyl (SAIAB)
Megan Loftie-Eaton
Carl Huchzermeyer
Peter Greaves
Chris Williams
René A. Navarro



Contact:

Jeremy Shelton: jembejem@gmail.com or fishmapafrica@gmail.com
Website: <http://vmus.adu.org.za/>
Facebook: <https://www.facebook.com/groups/FishMAP.Africa/>

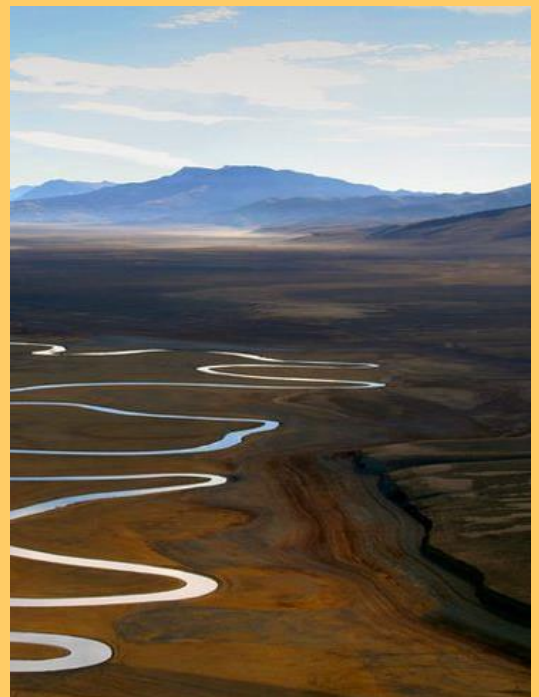
Citizen science and Africa's freshwater fish

With our rapidly expanding population and other global challenges comes increased stress on our natural ecosystems and biodiversity. This is especially true for freshwater ecosystems in Africa where pressures on freshwater resources are expected to intensify exponentially in upcoming decades. To make informed policy and management decisions about how to protect our freshwater biodiversity, we need data. That's where you come in. Powered by you, the citizen scientists, FishMAP is now collecting freshwater fish records from across Africa so that we can update species distribution records and fill in distribution gaps – information that is invaluable when it comes to conserving our freshwater fishes and their aquatic habitats. These are exciting times as never before has the potential contribution of citizen scientists to freshwater conservation in Africa been so great. Nature is the silent giver that brings us so much joy, and here is a chance for us to give back! We look forward to hearing from you, and remember: **EVERY RECORD COUNTS!**



About FishMAP

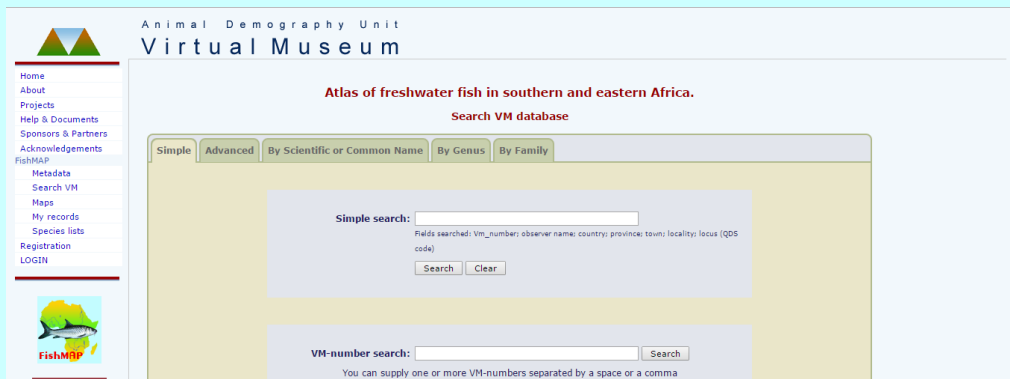
- The objective of FishMAP is to update and expand the distribution records of freshwater fishes in southern and eastern Africa, and we plan to achieve this with the help of citizen scientists. Housed at the University of Cape Town's Animal Demography Unit (ADU), the project is run in partnership with the South African Institute for Aquatic Biodiversity (SAIAB). With over 10,000 active members of the public across the ADU's various projects, citizen scientists provide us with indispensable information about species distributions. We invite each and every fisherman and club to join our team by becoming a citizen scientist and contribute their personal fish observations and catch records to the project via the ADU's Virtual Museum (VM).
- Through the contribution of citizen scientists, as well as collaborations with professional scientists, conservation organisations and wildlife authorities across Africa, we look to consolidate all reliable and identifiable records of current fish locations into an open-access digital database.
- The database accepts geo-referenced photographs (see section on "How to photograph a fish for FishMAP") of fish which are then identified by a panel of experts and used to create distribution maps (see below) for each species. The information consolidated within FishMAP will not only yield crucial information for species and riverscape conservation policies, but forms an excellent platform for educating the public about African freshwater fishes and associated conservation challenges.



How to become a FishMAP citizen scientist

Step 1: Register (or check if you are registered) as an ADU observer at <http://www.adu.org.za/register.php?project=vmus>

Step 2: Once registered, you can login to the Virtual Museums website at <http://vmus.adu.org.za/>, click on the “LOGIN” tab on the left-hand side of your screen and login with your email and password.

The screenshot shows the Virtual Museum website. At the top, it says "Animal Demography Unit Virtual Museum". Below this is a red banner that reads "Atlas of freshwater fish in southern and eastern Africa." and "Search VM database". There are four tabs: "Simple", "Advanced", "By Scientific or Common Name", "By Genus", and "By Family". The "Simple" tab is selected. Below the tabs is a "Simple search:" section with a text input field and a "Search" button. Below that is a "VM-number search:" section with a text input field and a "Search" button. On the left side of the page, there is a navigation menu with links: Home, About, Projects, Help & Documents, Sponsors & Partners, Acknowledgements, FishMAP, Metadata, Search VM, Maps, My records, Species lists, Registration, and LOGIN. At the bottom of the menu is a small FishMAP logo.

Step 3: On the left-hand side of your screen click on "Data Upload", and a form appears. The first page collects the information such as the GPS coordinates of the location, and the second page is for uploading your photographs.

Step 4: Fill in the form. All areas marked with * are required fields: Year, Month, Day, Country, Closest Town, Locality, Latitude, Longitude, and the Source of your GPS coordinates. If you do not have the GPS coordinates (which can be recorded with most cell phones, or any other GPS-fitted device) for your record you can use the Google Map provided and pinpoint the area where you took the photo. If you use the Google Map, the operation of clicking automatically provides the coordinates. After completing the form click on “Save” at the bottom to save this information, and to move onto the second form.

Step 5: Select the project to which you want to submit your photo. Upload your photos (maximum size 2MB) and click on “Submit” at the bottom of the form. After your photo(s) have finished uploading to the database, you will receive a confirmation of the submission. You can load up to three photos per record. The form makes provision for three photos at the site described on the first form. (Usually, there is one record per site, so you skip over the provision for records two and three right down to the bottom of the form, and submit it.) Once the record is submitted, confirmation of its arrival is provided by the appearance of a thumbnail version of your photo, and the basic details of your record.

How to photograph a fish for FishMAP

- You need a camera, but anything from a cell phone to a DSLR will do the job!
- Fish can be photographed in water or on land. Underwater photographs are great as they show the fish in its natural environment and don't risk injury to the fish.
- Pics of fish in water from above can be difficult to capture, but are also acceptable.
- Fish removed from the water (e.g. those captured by net or hook-and-line) need to be handled with wet hands and should never be squeezed to avoid damage to internal organs. Ideally fish should be photographed side-on, as well as from above and below if possible. Fish can be held in the palm of the hand, or by gently by cradling the fish's head and tail. Alternatively they can be photographed on a moist surface or net, or in a clear container containing water. Fish should be kept out of water for as short a time as possible and gently returned to the water. Any fish that seems disorientated when returned can be gently moved back-and-forth to increase the flow of oxygenated water over the gills until the fish is ready to swim away.
- To get your photograph "FishMAP ready", please crop it to have the fish in the centre of the frame, and resize so that the final pic(s) is no bigger than 2MB in size.



Happy snapping, and remember: EVERY RECORD COUNTS!