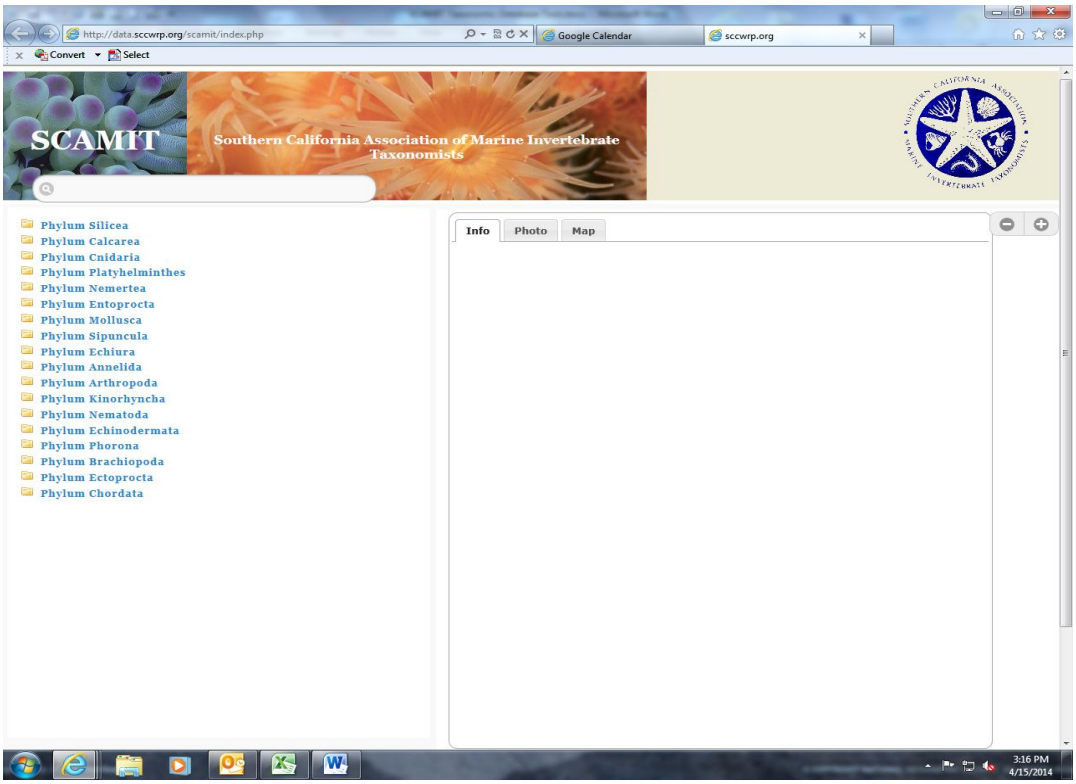
The Taxonomic Database Tool (TDT) has been a work in progress since 2004 when member Dave Montagne held a series of meetings to discuss the concept of a web-based information system. The original idea was to use the SCAMIT Species List as the back bone to link other sources of information useful to taxonomists and ecologists. Once the original concept was established, developing it took several years. SCAMIT members did not have the IT skills or knowledge required and it was realized early on that funds were necessary to bring in that expertise. The Orange County Sanitation Districts generously donated money to support development of the TDT. Programmers were hired to develop the architecture to hold the desired content. When the original programmers had to withdraw from the project, SCCWRP, recognizing the value and need of such a tool, stepped in providing IT support. The product you see today is a result of the work of many individuals over several years.

This document is provided as a basic guide to accessing and navigating the SCAMIT Taxonomic Database Tool. As users gain more experience, they will likely discover other useful shortcuts or ways of using the TDT not covered herein. The TDT is still a work in progress, but can be especially useful in accessing species occurrence information, especially for past Bight surveys. There are improvements being planned. The website taxonomic tool box, which is linked to from within the TDT, had a major increase in content recently and files need to be cleaned up and organized. Access to images at Morphbank is limited to the species posted there by SCAMIT members. SCAMIT will be funding an effort to gather the many taxonomic support images residing on member computers and link them to the TDT. Establishing a place in the Taxonomic Tools section of the website for the TDT, making improvements in those two areas and adding links to assessment docs (BRI, P-Code, SQO). Those are all immediate goals that SCAMIT will fund.

There are other more long-term goals that require additional funding support. The TDT is based on the SCAMIT Edition 7 Species List. SCAMIT and SCCWRP are together seeking funds to update the TDT to the current edition of the species list and/or build a name update tool that will last into the future. Additional occurrence data form other POTW's should be added and linkage to the CEDEN program considered for future occurrence updates. Establishing links to ecological data (sediment chemistry, grain size, bioaccumulation, toxicity), original descriptions, literature sources, museum holdings, etc. will be addressed and achieved over time as demand by users and funding dictate.

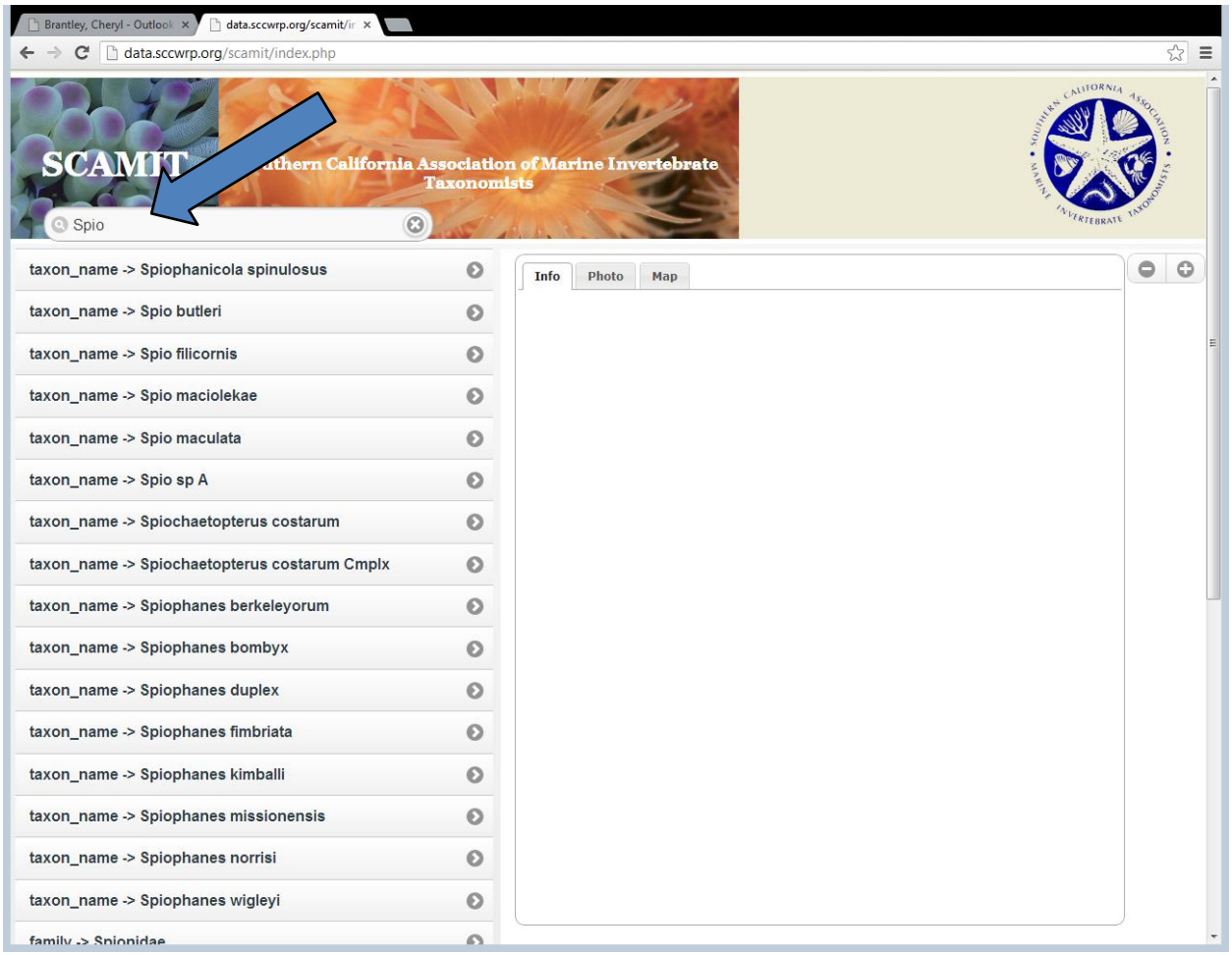
The TDT will work best using the following browsers: Firefox, Chrome, Safari (I-Pad, I-Phone). It will work on Windows Explorer, but will be slow and some of the spacing will not appear the same way. This will slow down those working on agency work computers where IT controls the ability to add other internet browsers. Display is best viewed in high resolution settings on your monitor.

Open the TDT link: http://data.sccwrp.org/scamit/index.php. This will open to the main page.

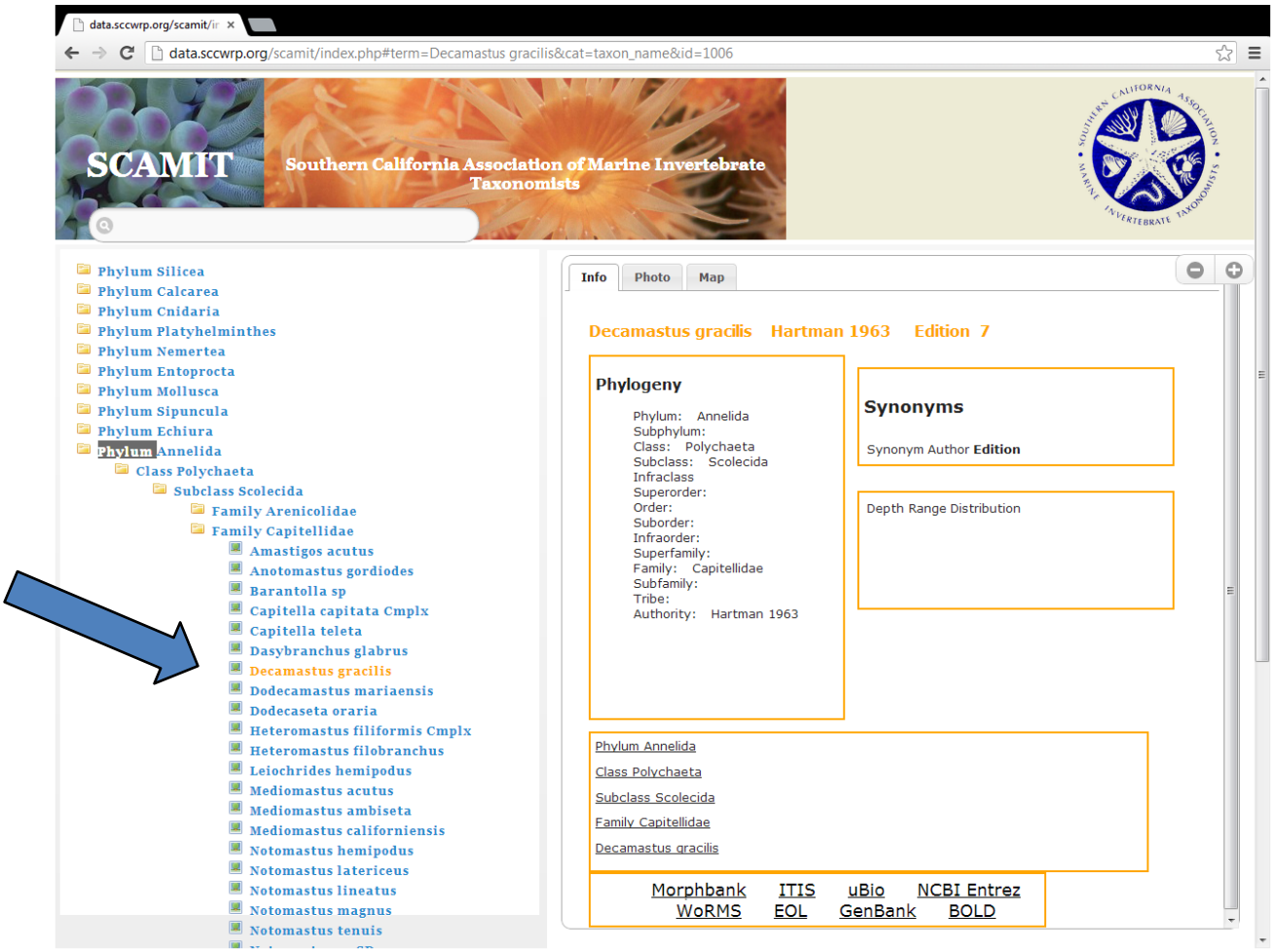


The basic architecture of the page is the banner with search box as the header, below that the taxonomic hierarchy and species content display box with info, photo, and map tabs.

From the main page you can access display species information in two ways. To begin type a name in the query box (the easiest way). Once you start typing the name a list of potential targets appears. Click on the name you wish to display content.

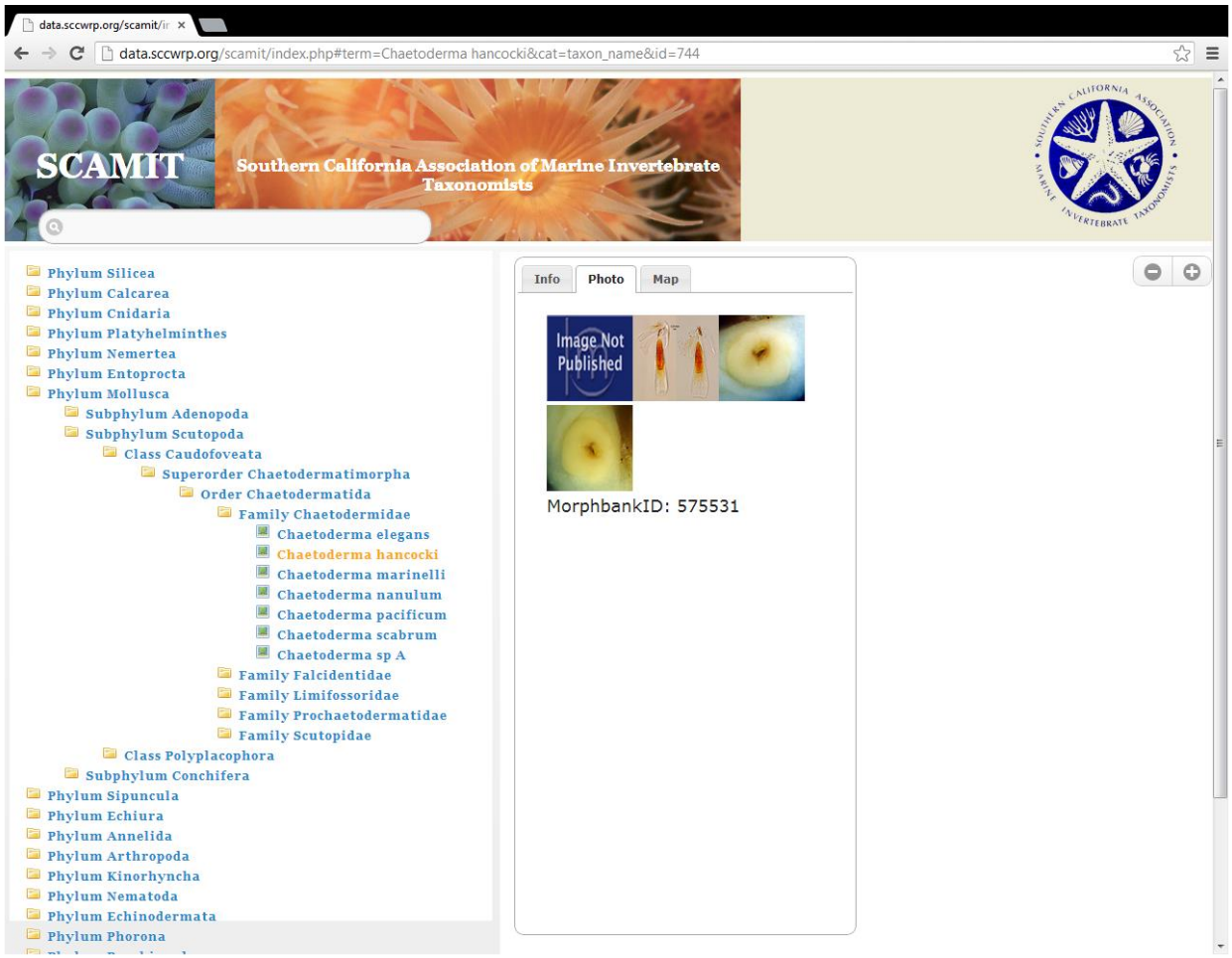


Or you can click on the taxonomic tree and drill down to the target species and click on the name you wish to display. The species display box will open to the info tab showing the phylogeny, synonyms, a place for depth range distribution information, links to the website taxonomic toolbox documents, and links to other websites (Morphbank, IT IS, WoRMS, BOLD, etc). The other species display tabs are used to navigate to different screen views to display photos and mapping content.



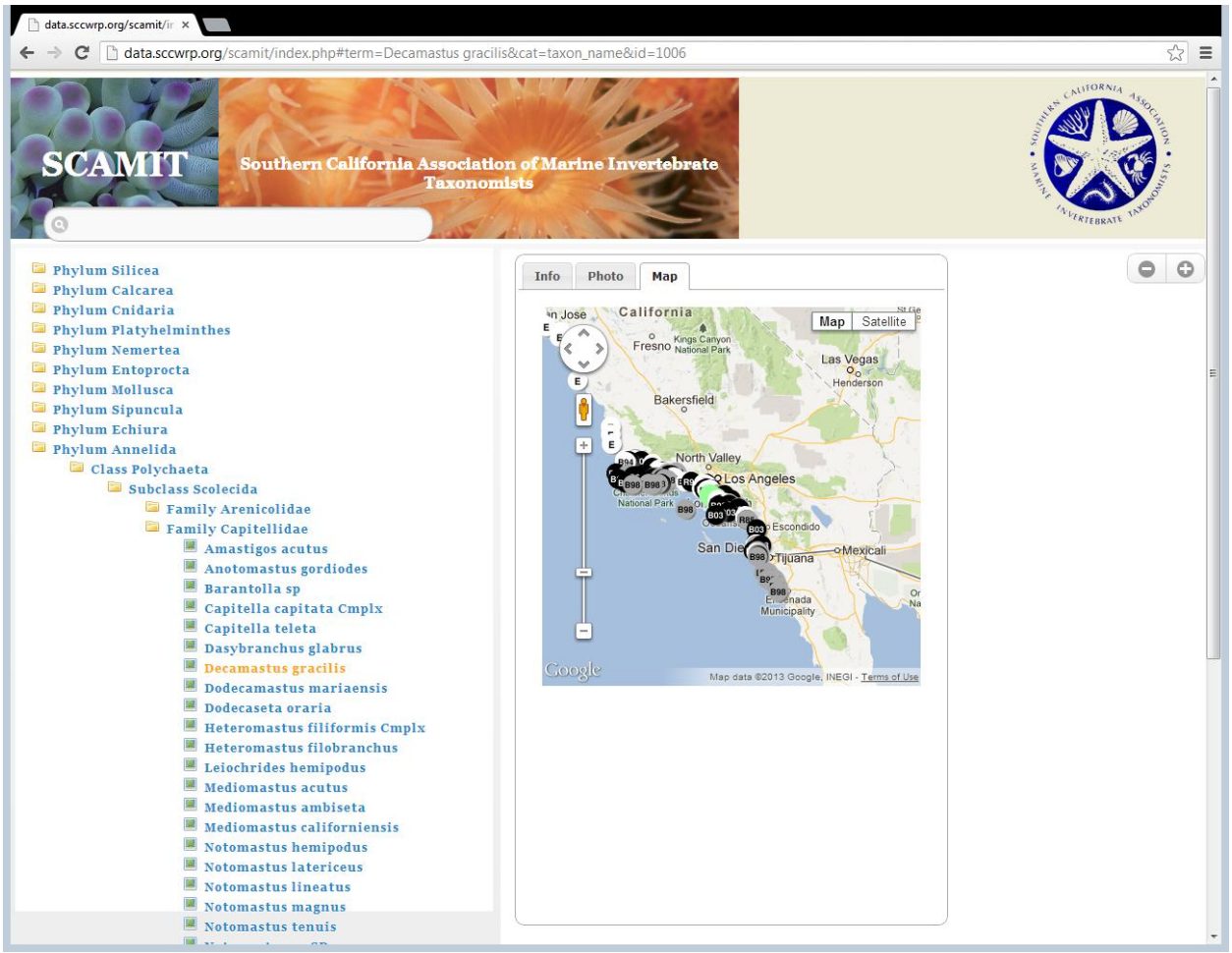
Click on the photo tab and images of SCB species deposited at Morphbank by SCAMIT members are displayed. The number of images available is low at present. One group of organisms, the Chaetodermatida, is well represented and clearly illustrates the value of linking to images of important character states (thanks Kelvin Barwick). Below is the photo page display for *Chaetoderma hancocki*.

More images are needed to fully utilize this feature. SCAMIT will hire an intern to visit labs and mine images that members have accumulated and not submitted to Morphbank. The future of Morphbank as a lasting repository is uncertain and SCAMIT will be considering alternative solutions to long term storage and access to images.

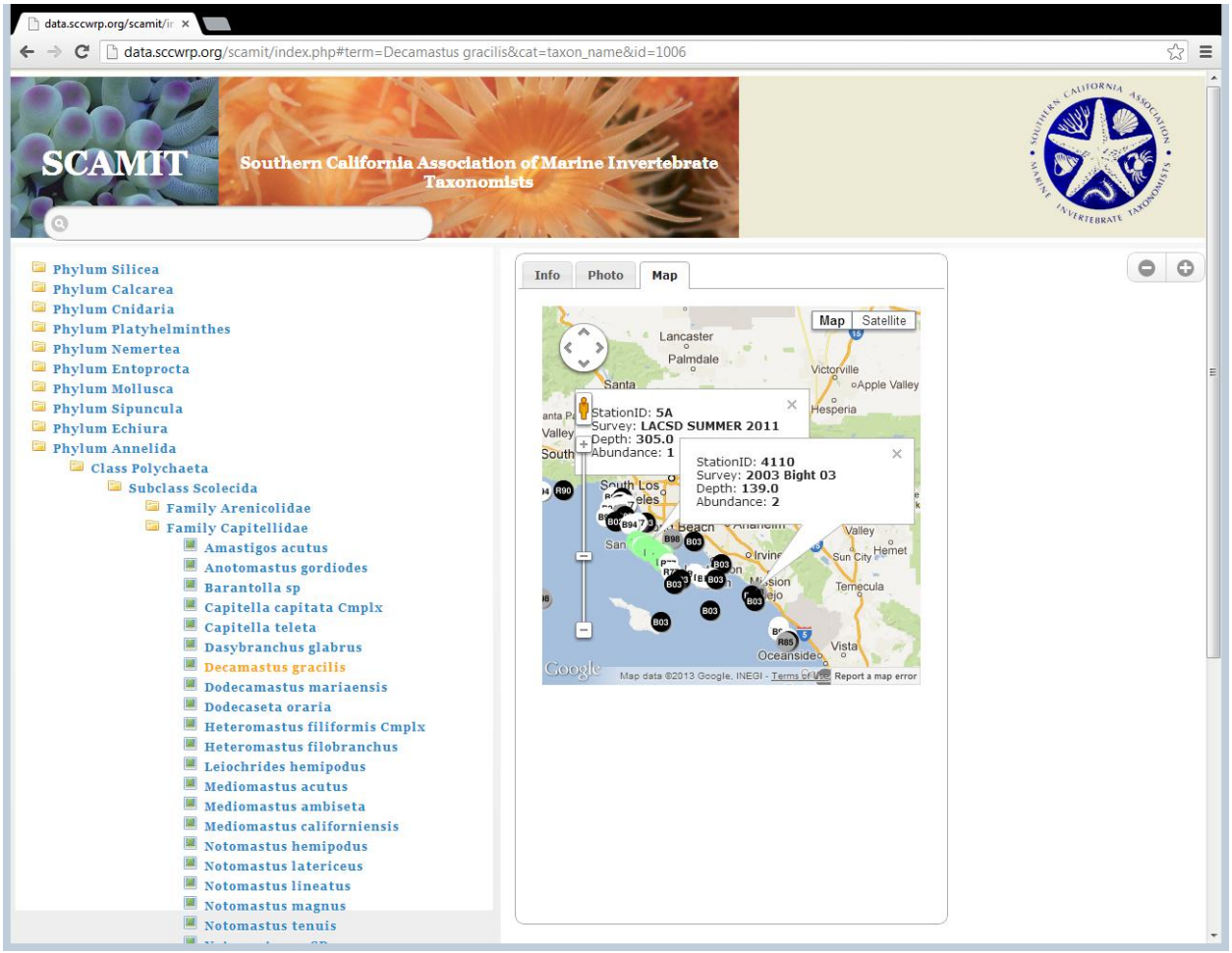


The maps tab is completely functional. It is populated with sampling occurrence event data from several programs (SCCWRP Bight and EMAP surveys; LACSD; Oxnard). Imported data from POTW's was restricted to the years 2007-2012 so name usage would be less of an issue. It is planned that additional datasets from other POTWs will be forth coming, further populating the mapping tool to more fully display the regional distribution of species. Additional new POTW and Bight occurrence data can be added as they are reported. In the future, reporting of survey data to CEDEN in compliance with SWAMP protocols may greatly facilitate new data acquisition.

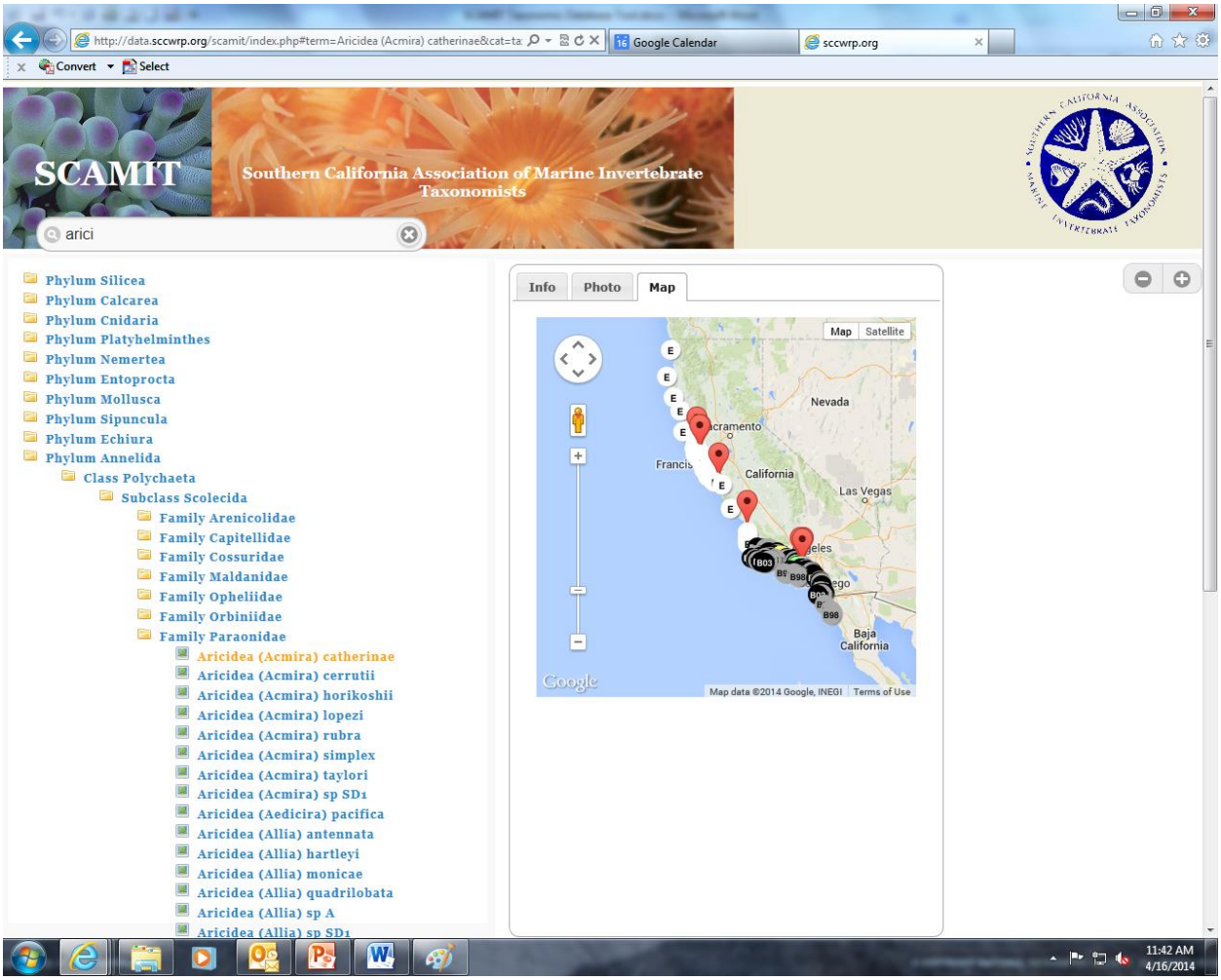
The bubbles on the map are superimposed on the station location and indicate the source (B98, B03, B08, E, LA, OX). The mapping tool has enhanced value during Bight survey work to see where a particular species has been reported previously (geographic range and depth).



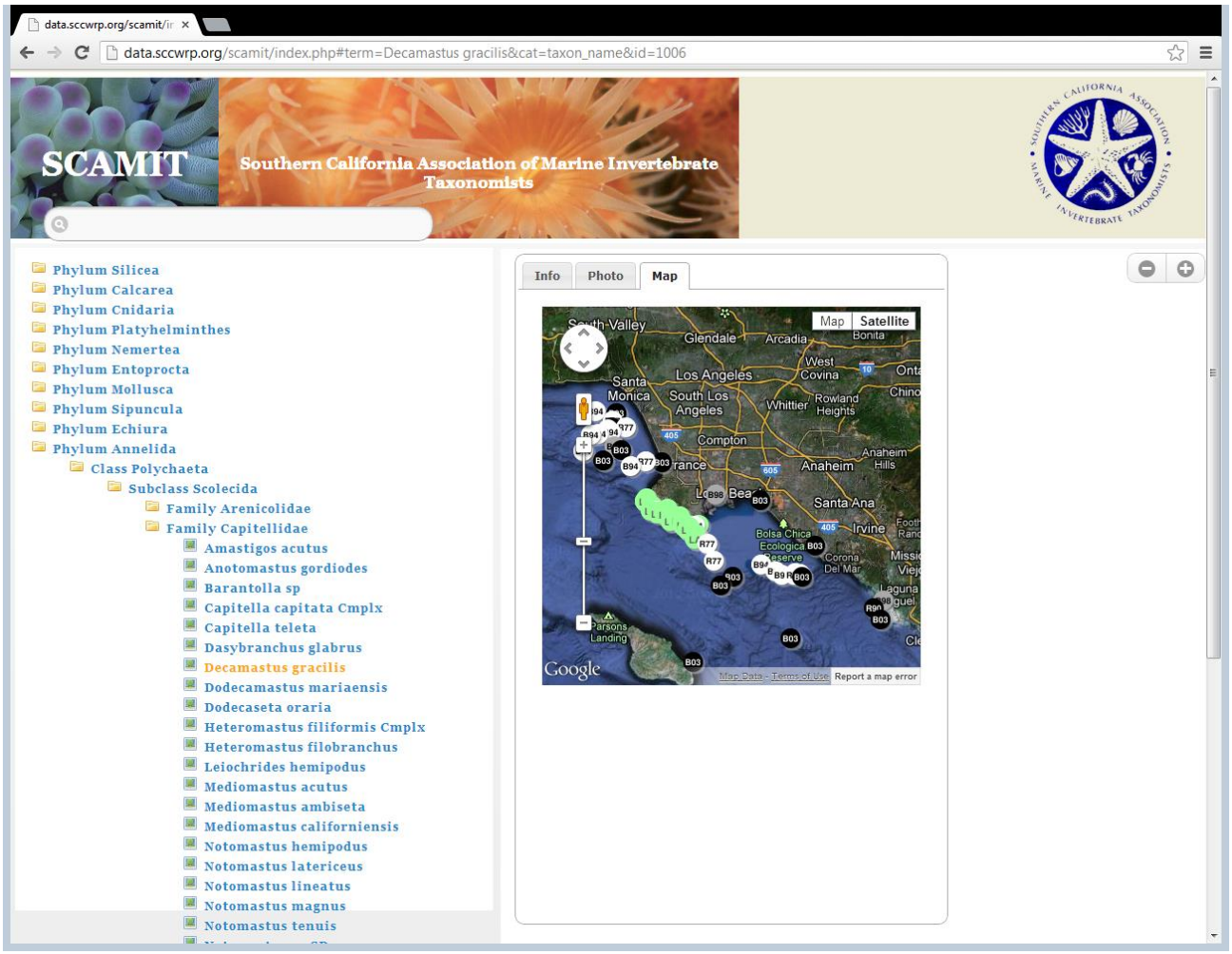
Further information on the sampling occurrence event is displayed by clicking on each bubble: Station ID, survey name, depth (m), and abundance. Using the zoom bar feature will be necessary to increase resolution and provide station separation in areas where sampling density is high. Multiple boxes can be opened on the screen and closed by clicking on the x.



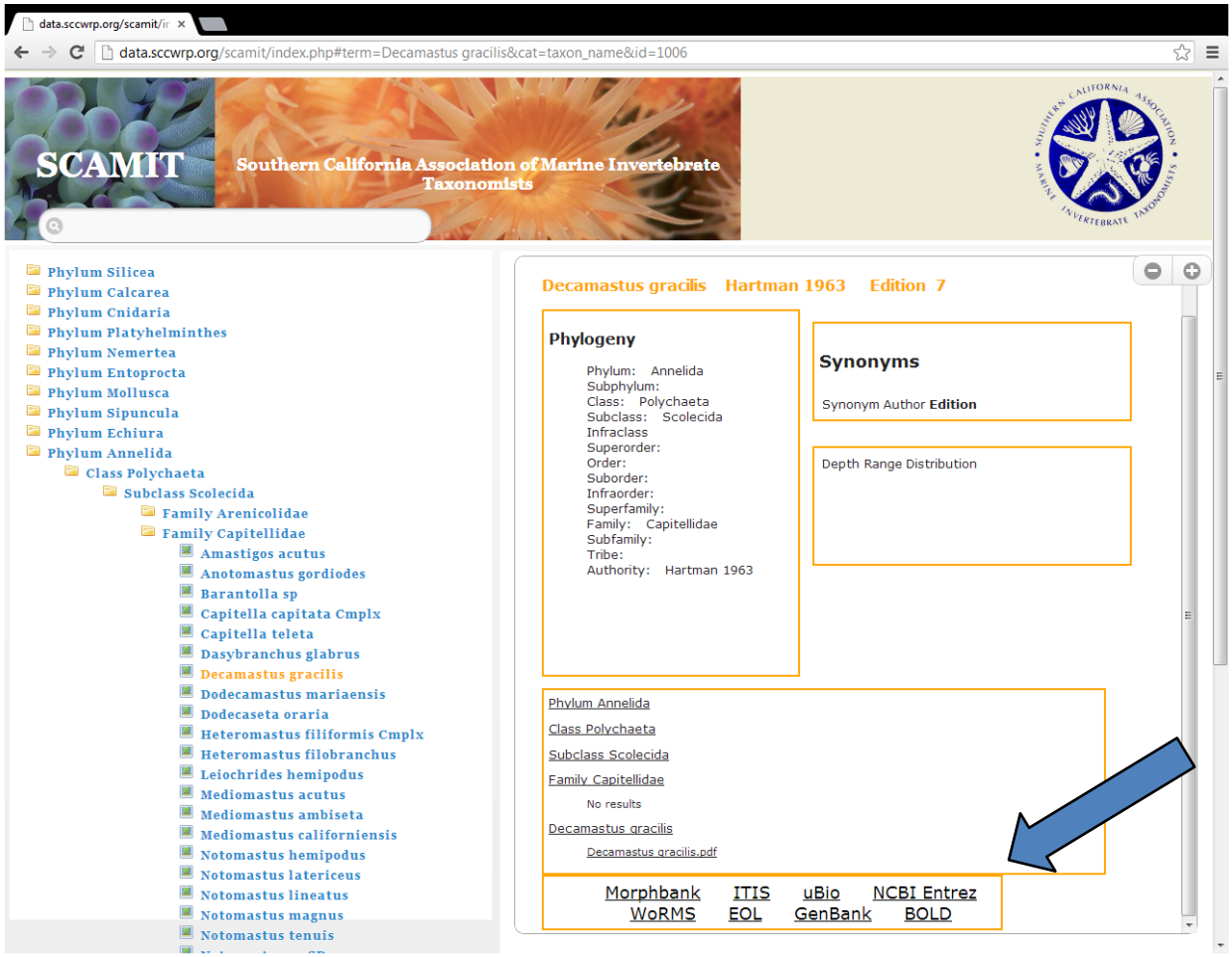
The EMAP data includes stations collected up into Northern California as illustrated by this display of collection event data for *Aricidea* (*Acmira*) *catherinae*.



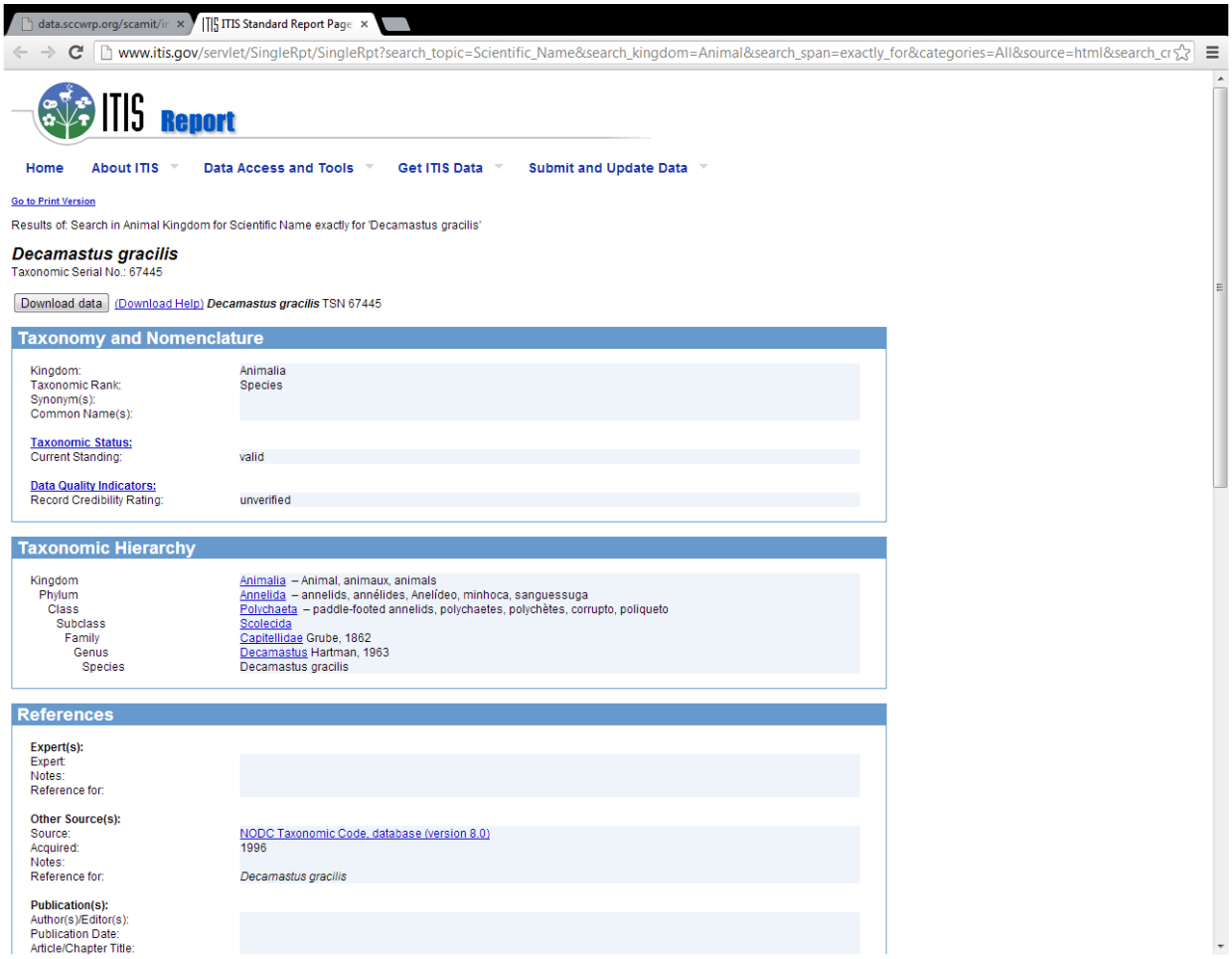
Satellite view is available if the user prefers.



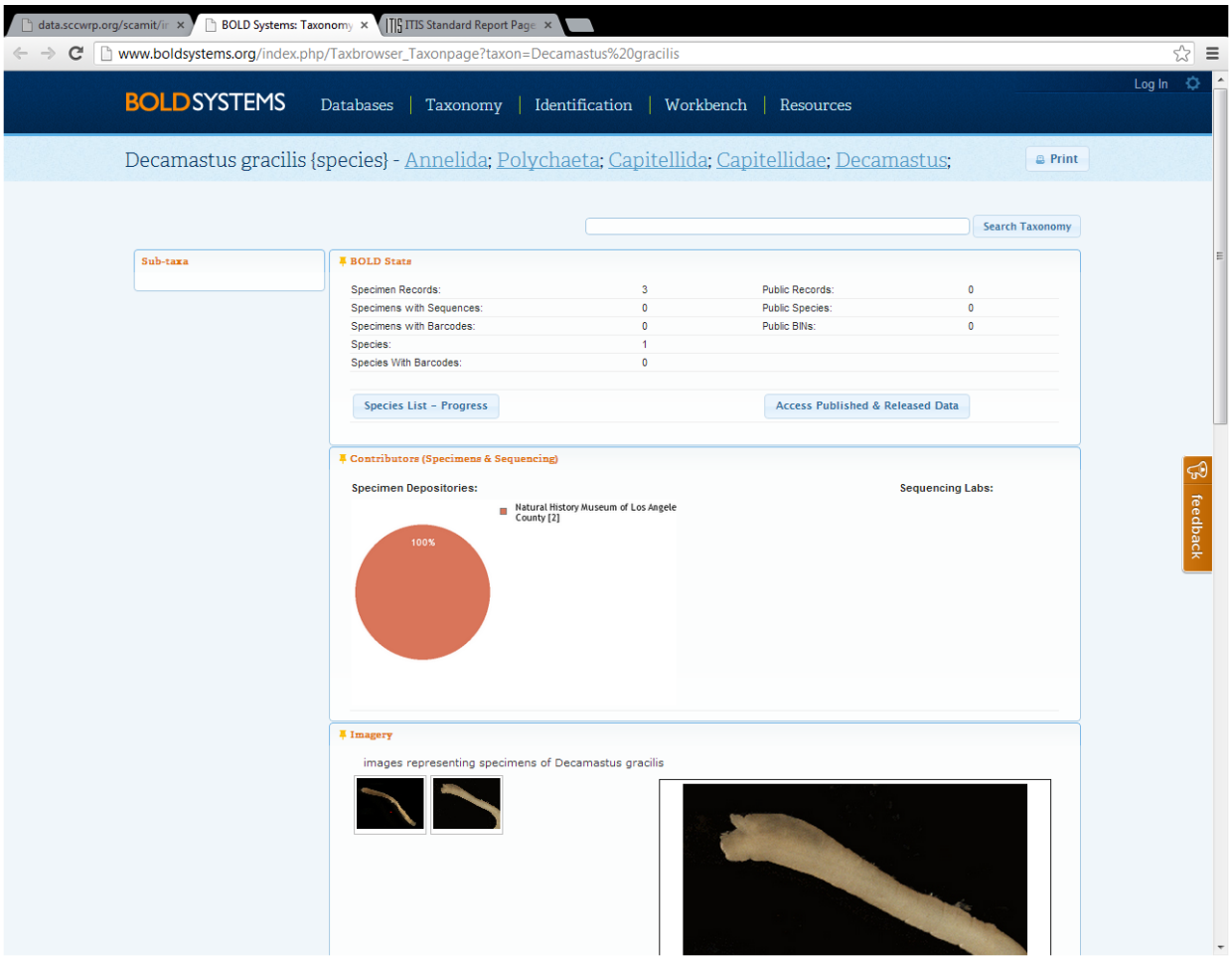
This screenshot illustrates the different links to other resources: Morphbank, WoRMS, ITIS, BOLD, etc. The links go to the actual page for that species name, avoiding another search once you get to those websites.



Clicking on the link will take the user directly to the species page in that entity, for instance *Decamastus gracilis* at the ITIS website in this example.

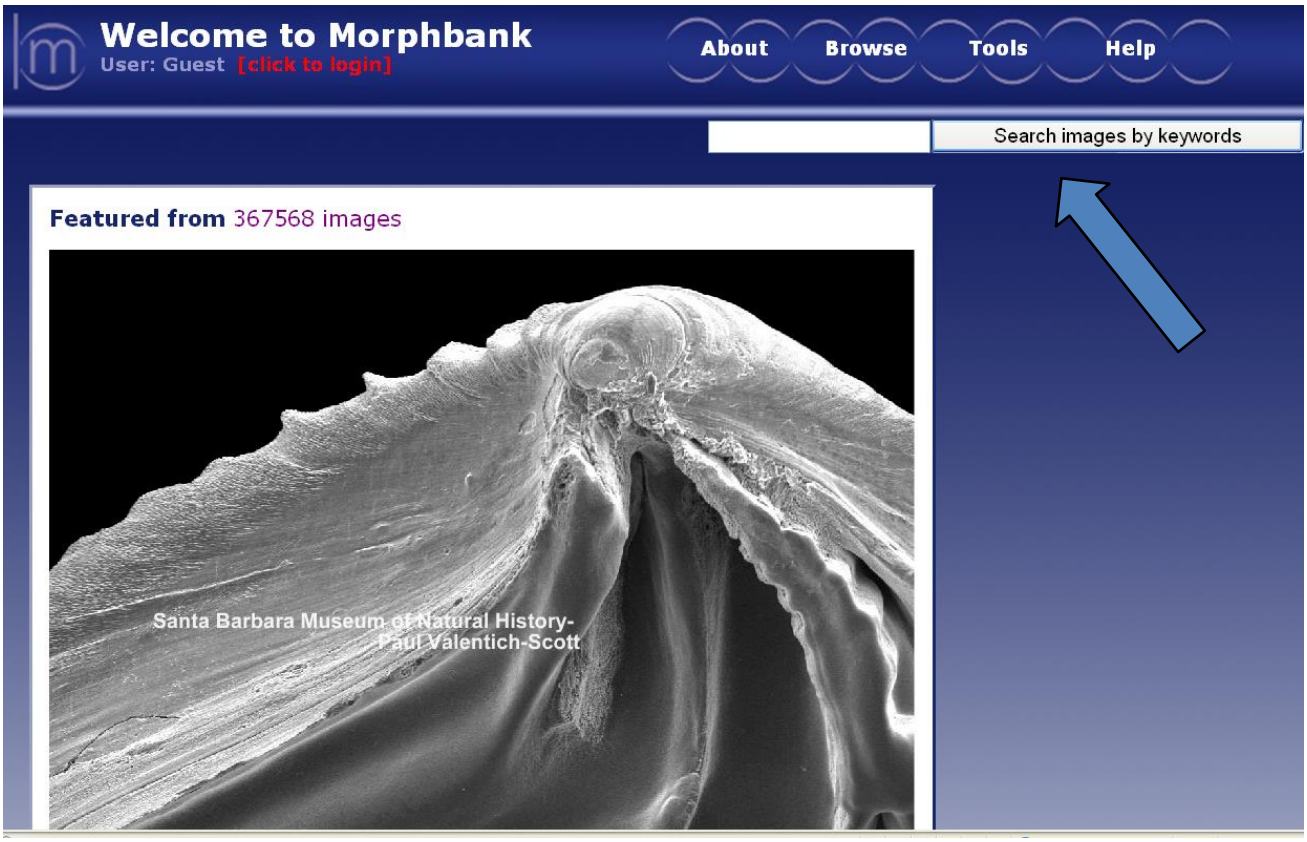


The *Decamastus gracilis* page at BOLD.



The WoRMS page for *Decamastus gracilis*.

Opening page of Morphbank with SCAMIT member Paul Valentich Scott's image Use the search feature in the right hand corner to go directly to any species name.



Detailed image content information displayed at Morphbank for *Chaetoderma elegans*.