

Project Update: May 2022

Analysis of current and potential distribution

So far, we have identified 30 species of dung beetles that are distributed in the mountain regions of Oaxaca. We have completed the potential distribution maps for current time scenario, and we are currently working on the potential distribution under climate change scenarios. The evaluation of conservation status, following IUCN criteria will be made once we finish the potential distribution maps.

Regarding bumblebees, literature has registered 17 species for the state of Oaxaca. Prior to the construction of potential distribution models and the evaluation of conservation status, we will carry out field collections for 2022 summer season to confirm their presence in different Sierras (mountain ranges) at Oaxaca.

Fieldwork and material curation

We sampled dung beetles at three new communities: Agua Azul and Huajuapán de León (both in the Mixteca Region), and San Luis Amatlán (Sierra Sur). We will visit at least three more communities during the rainy season (starting at the end of June 2022), that matches with dung beetle's highest richness period. We are currently working on the taxonomic identification of the material collected during 2021. It has been planned these new records will be complementary to the current results.

Sharing results

A reference collection and an infographic of the new species of *Geotrupes* has already been delivered to San Esteban Atatlahuca (Figure 1). We also delivered a set of scientific and science communication papers to Santa María Tlahuitoltepec (Figure 1). As soon as we finished the curatorial process of this year material, we will do the same thing with the rest of the communities.

Our work, along all the advances we are having were presented in different and other events. I did an oral presentation at the online 24th SOLA Scarabs Worker Symposium (May 28th, 2021); and a second one at "La Fiesta de los Hongos" at the community of San Esteban Atatlahuca (Figure 2; plus the infographic of the new species *Geotrupes nuntiatus*).

On May 21, 2022, we conducted a workshop at the "VIII Congreso Nacional de Ecología" that was held at Oaxaca city (Figure 3). This was conducted as a free activity and most of the students were from different communities of Oaxaca.



Figure 1.

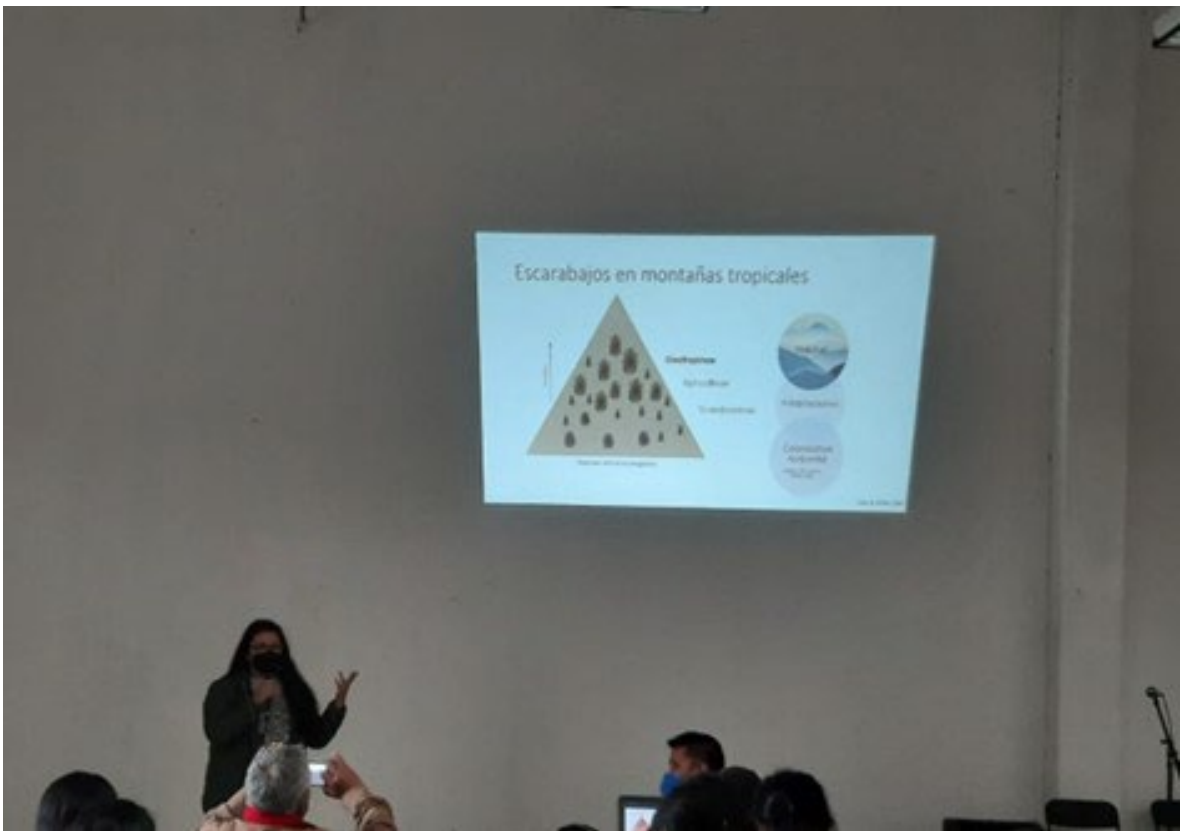


Figure 2.



Figure 3.