OVERVIEW OF THE EDUCATIONAL APPROACH OF A CITIZEN SCIENCE PROGRAM FOR PLANETARY SCIENCES KNOWLEDGE

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Keywords: *NEA, harzadous, citizen science, planetary science*

ABSTRACT

In the last decade, a deep understanding of minor solar system objects has been the main interest in planetary sciences research. Planetary science is the perfect definition for an array of scientific disciplines that together try to seek answer about how the solar system formed. Around this latter, until now, thanks to the SENTRY the Near Earth Objects coordination centre from ESA [1, 2], we know that there are close to 30800 near-earth asteroids (NEA). On the other hand, objects causing fireballs are usually not large enough to survive passage through the Earth's atmosphere intact. Likewise, around the latter there is a relevant topic, sometimes it is possible to recover fragments of meteorites on the ground giving the opportunity to research such impactors. All around NEA, fireball, meteorites events and impact events of some of these objects on Earth lead both, the general public and scientific community alike to ask, how often are such impacts on the Earth, and what is the hazardous level of them to the earth? One of the challenges with addressing these questions is communicating under the expertise and the research basis of these topics. Through research, education, and outreach project in Colombia and at the University Sergio Arboleda named SAROS [3, 4], we have developed a STEM and one citizen science program in searching for new asteroids that provide high-quality astronomical data to citizen scientists around Colombia. These citizen scientists are able to make original astronomical discoveries and participate in hands-on astronomy programs not only for the University but for the general community as well. The aim of this work is to give the correct understanding of such objects of the solar system, but also to teach how these objects are important for the complete understanding of the birth of life on our planet as well as the understanding which of them represents a real danger for us on Earth.

References:

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