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CONSOLIDATION AND CAPITALIZATION OF CITIZEN SCIENCE: ANGELSHARK (*Squatina squatina*) POPULATION STRUCTURE, DISTRIBUTION AND HABITAT USE.

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Abstract: Citizen science has become an increasingly important resource in ecological research. Angel Shark Project: Canary Islands works very closely with dive centers across a uniquely large 'hotspot' of the Critically Endangered angelshark, *Squatina squatina* - the Canary Islands -with the aim to collect vital data using a citizen science approach to describe the distribution and ecology of Angelsharks in coastal waters. In this sense, the Angel Shark Sighting Map is a fundamental tool for compiling information from dive centres across the archipelago, with the involvement of citizen science divers increasing the effort to search for and record angelsharks. These data have been used, together with scientific analysis, to inform habitat suitability for this cryptic threatened species. The analysis focused on the population structure and habitat use of Angelsharks using a Species Distribution Model to examine realised and potential distribution patterns, and determine the relative importance of environmental predictors on S. squatina occurrence. According to citizen science data utilised inside MAXENT, angelshark habitat appropriateness is poor in coastal locations during warmer months, with fewer occurrences despite a little change in sampling effort. Bathymetry's primary relevance may signal the importance of depth for reproductive activity and possibly diel vertical migration, whereas aspect may serve as a proxy for protected habitats away from the open ocean. Substrate as a predictor of female habitats in spring and summer may signal that soft sediment is sought for birthing places, aiding in the identification of areas crucial to reproductive activity and hence locations that may benefit from spatial safeguards.

Key words: Angelshark, *Squatina squatina*, citizen science, habitat suitability model, conservation, Canary Islands

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