

Assessment of geosites and geotouristic routes proposal for geoheritage promotion on volcanic islands

PROBLEM

Galápagos is mainly recognized for its biodiversity; however, its geological and geomorphological features need greater dissemination within tourism and educational initiatives. San Cristóbal Island contains volcanic and coastal geosites with high scientific, educational, and touristic value, which need to be assessed and communicated in order to strengthen geoconservation and sustainable geotourism.

MAIN OBJECTIVE

Evaluate sites of geological and geomorphological interest on San Cristóbal Island by comparing two internationally accepted geosite evaluation methodologies (Brilha and IELIG method), for the proposal of geotourism routes, the generation of guidelines in geoeducation, and approaches in geoparks.

METHODOLOGY

This workflow integrates international geosite assessment methods with expert-based validation, allowing the identification, valuation, and strategic use of geoheritage for sustainable geotourism planning in San Cristóbal Island.

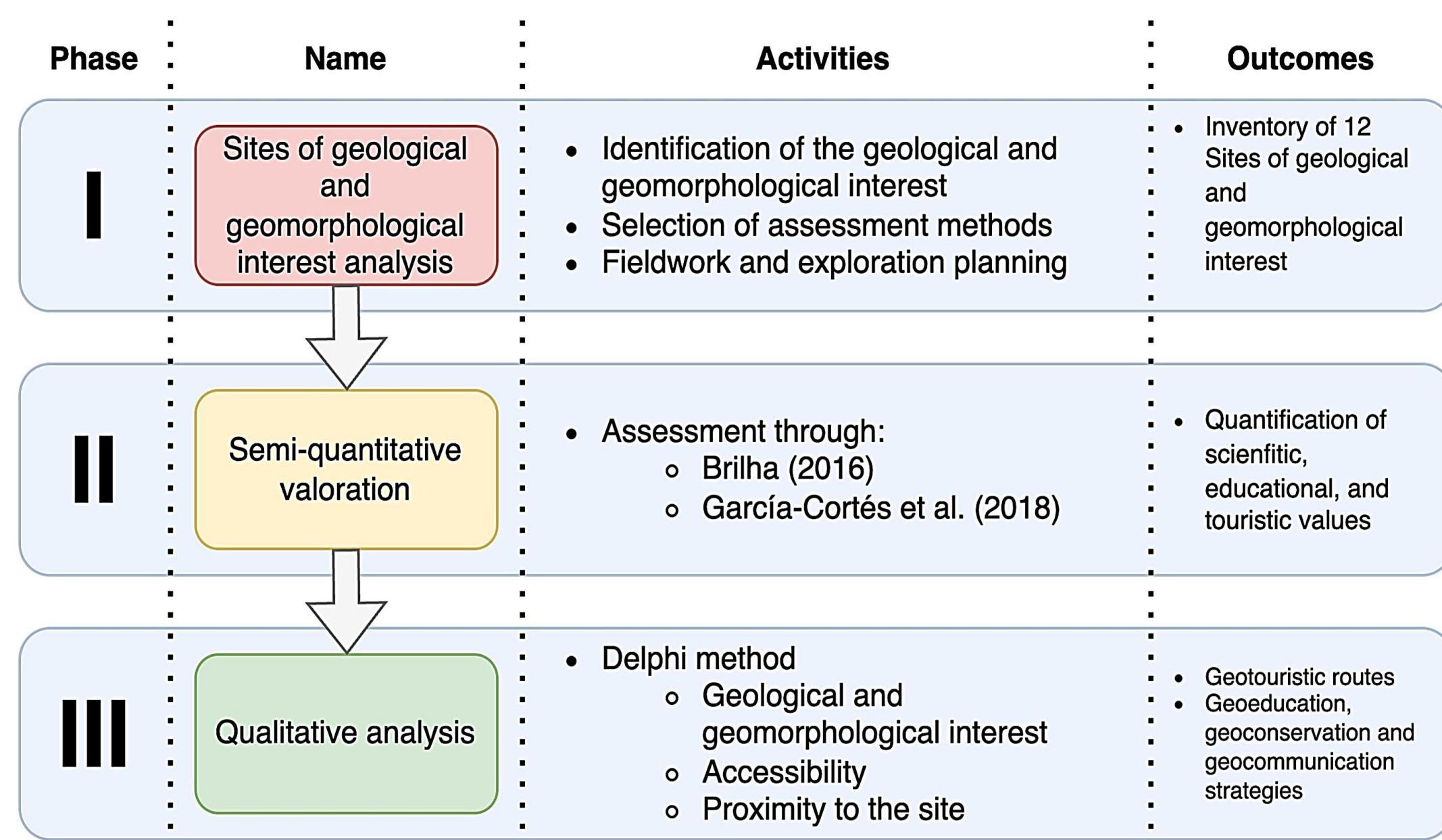


Figure 2. Methodological workflow for the assessment of geological sites.

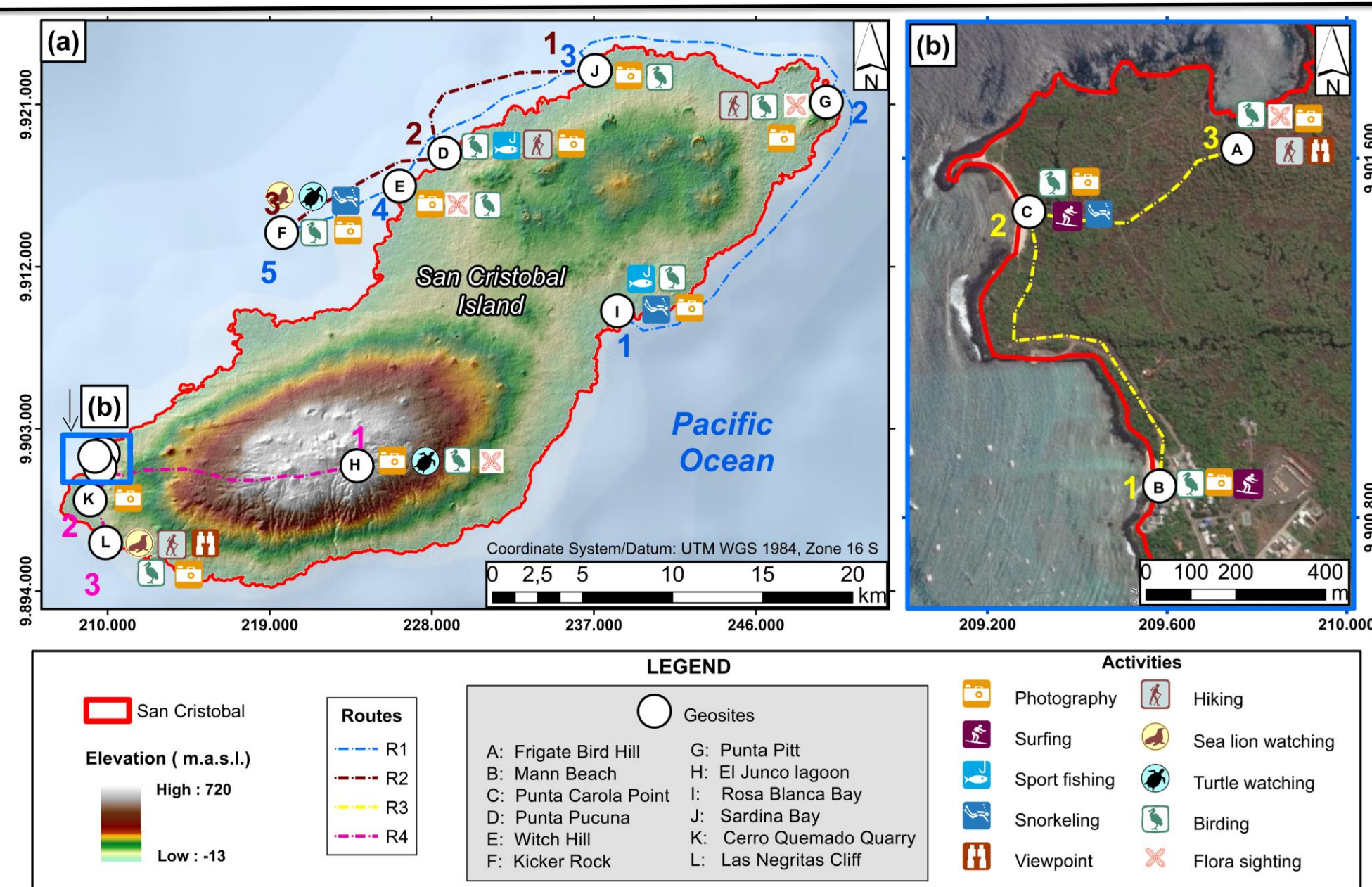


Figure 6. Geotouristic Routes Map in San Cristóbal.



Figure 7. Suggested strategies according to professional judgement for the use of geosites.

CONCLUSIONS

- The study assessed 12 sites of geological and geomorphological interest in San Cristóbal Island, of which 33% showed high interest according to the Brilha and IELIG international assessment methods.
- The results highlight the scientific, educational, and touristic value of volcanic and coastal geosites, reinforcing their role as key elements for sustainable geotourism and geoeducation in Galápagos.

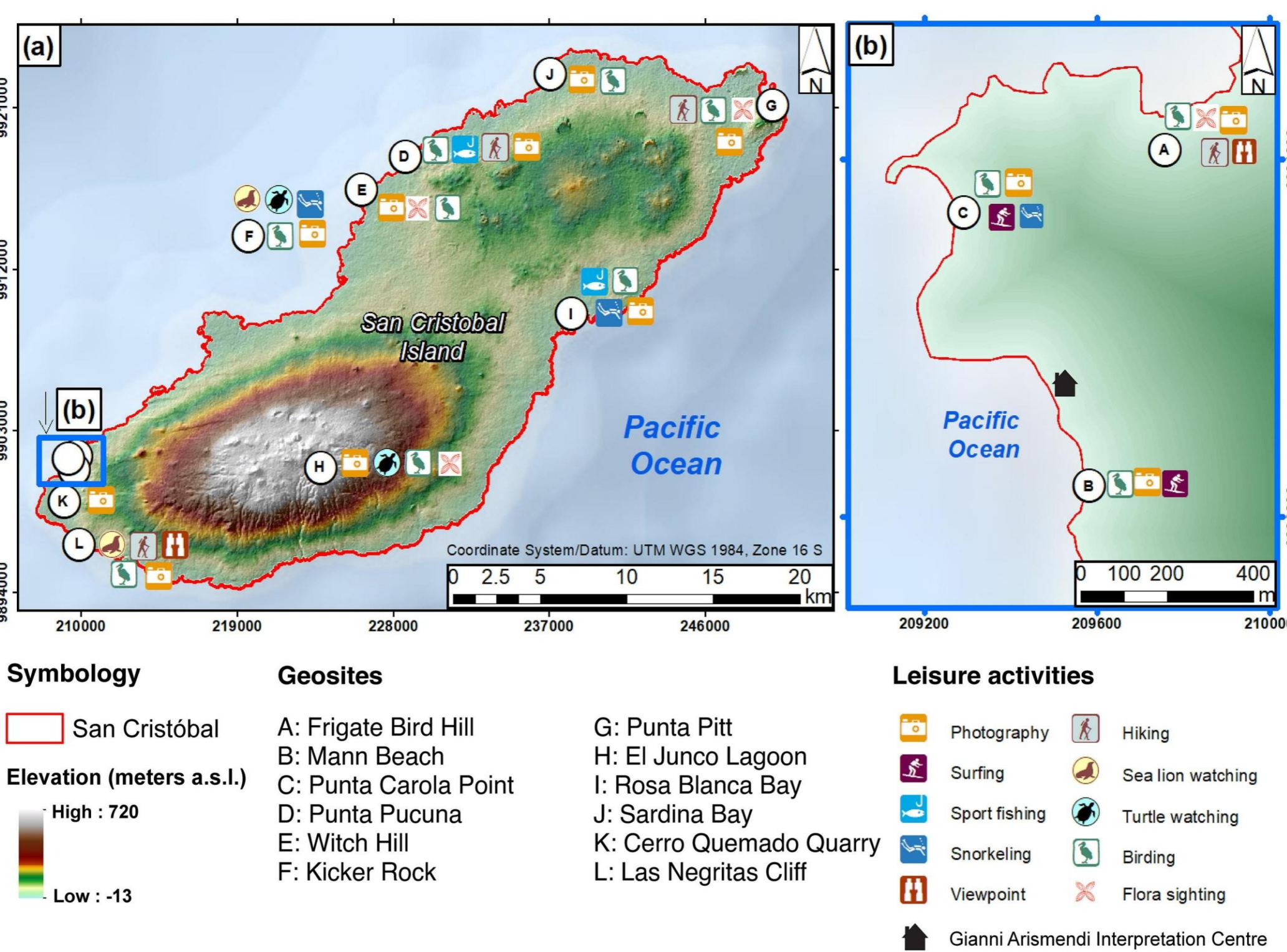


Figure 1. Spatial distribution of the 12 assessed geosites and associated leisure activities on San Cristóbal Island,

RESULTS

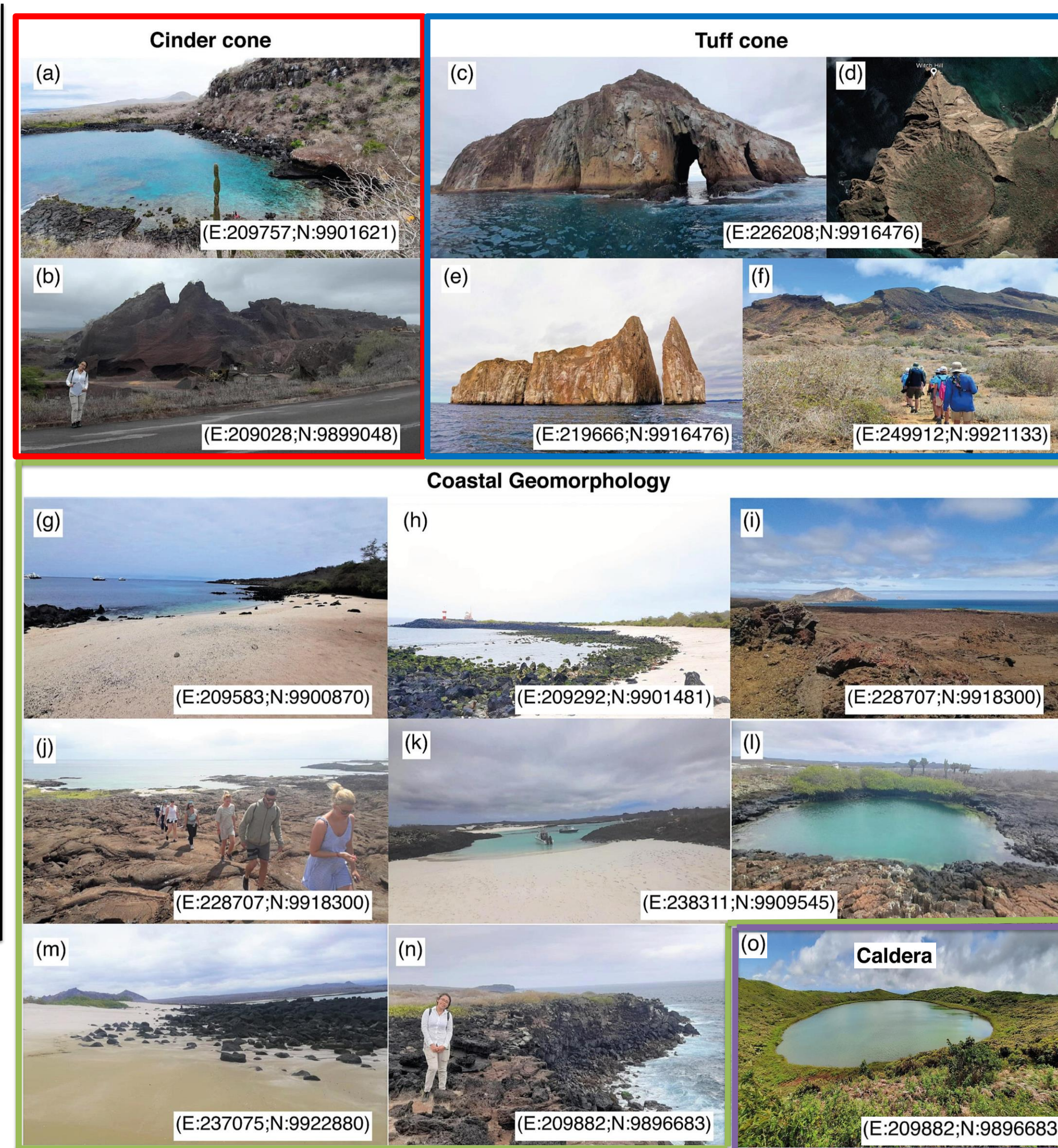


Figure 3. Geosites evaluated on San Cristóbal Island

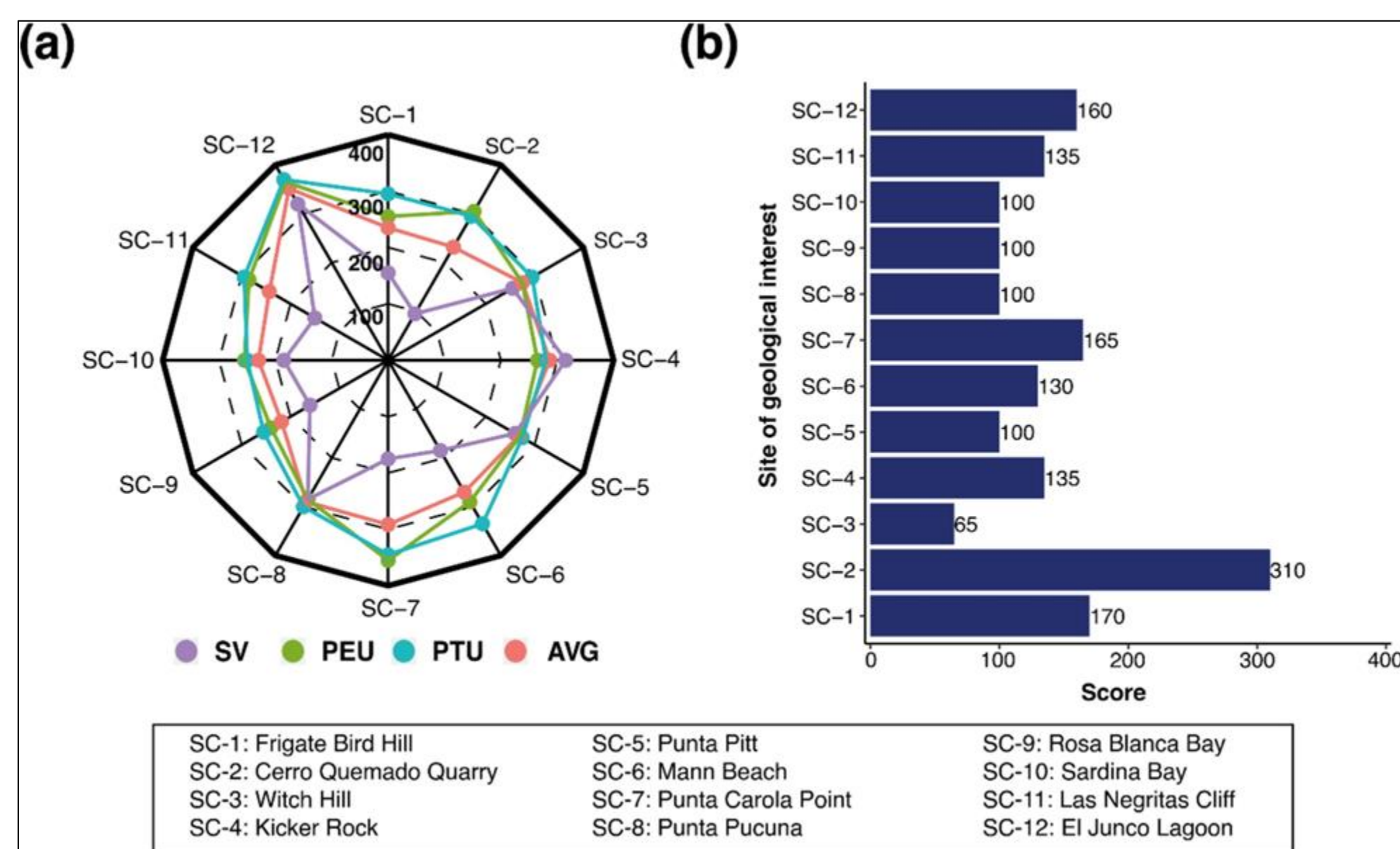


Figure 4. Results of the assessment through Brilha (2016) method

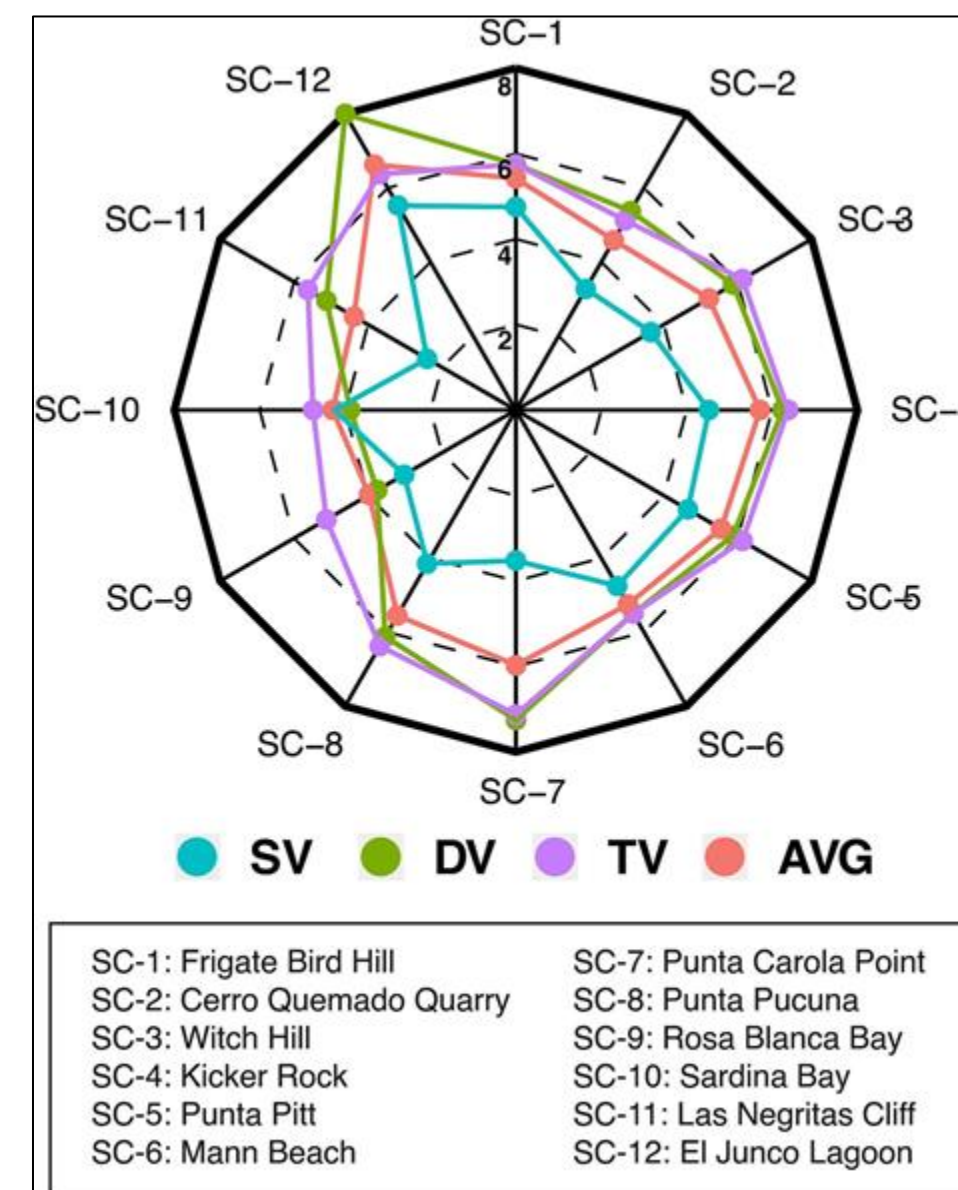


Figure 5. Results of the assessment through IELIG method

- The 4G approach (geotourism, geoconservation, geocommunication, and geoeducation) provides a strategic framework to improve the visibility, interpretation, and conservation of volcanic geoheritage in protected island environments.

More information

