



XIIth International ProGEO Symposium

Celebrating Geological Heritage and Geoparks

EDITORS: Andrei Briceag, Antoneta Seghedi

30th September - 2nd October 2025,
Tulcea, Romania



ABSTRACTS VOLUME

GeoEcoMar, Bucharest, 2025

INTEGRATING GEOCONSERVATION IN LARGE-SCALE EARTH SCIENCE PROJECTS: INSIGHTS FROM THE TRANS-AMAZON DRILLING PROJECT (TADP)

Maria da Glória Motta Garcia¹, Raquel Romão², Carlos Eduardo Manjon Mazoca³,
Isaac Salém Bezerra⁴, André Sawakuchi⁵

*University of São Paulo, Institute of Geosciences, Rua do Lago, 562, 05508-080, Brazil,
e-mails: ¹mgmgarcia@usp.br, ²r.m.m.romao@gmail.com, ³carlos.mazoca@usp.br, ⁴isaacbezerra@usp.br,
⁵andreas@usp.br*

Keywords: geodiversity, geoheritage, outreach, Amazon rainforest

Large-scale scientific initiatives, such as those by the International Continental Scientific Drilling Program (ICDP), offer remarkable opportunities for advancing geoconservation alongside cutting-edge geoscientific research. Established in 1996, the ICDP supports multidisciplinary drilling projects aimed at deciphering fundamental Earth system processes. These initiatives inherently intersect with geoconservation, generating vast scientific datasets and enabling direct interaction with sites of exceptional geodiversity. We show how outreach activities reinforce the role of geodiversity in supporting local identity and environmental stewardship, aiming for its formal recognition and protection in the Amazon region.

The Trans-Amazon Drilling Project (TADP), conducted within the ICDP framework in the Brazilian Amazon, exemplifies how such projects can actively foster geoconservation. Beyond its core scientific aims, such as advancing the understanding of South American tropical forest evolution, paleoclimate, and hydrology, the TADP integrated a geoconservation agenda. This included systematic identification, documentation, and interpretation of geodiversity associated with drilling locations, alongside efforts to valorise these geological features for their scientific, educational, and socio-environmental significance. Key actions included the development of educational materials for different types of audiences - fossil replicas, 3D models, virtual tours, postcards, an educational booklet, and a colouring book, designed to facilitate public engagement with Amazonian geodiversity. Courses, hands-on activities, and workshops were conducted in collaboration with local communities, schools, and environmental managers, aiming to democratise access to geoscientific knowledge and promote the appreciation of regional geological heritage. The integration of geoconservation strategies within the TADP was further enhanced by the systematic archiving and dissemination of geological data, contributing to the identification of potential geological sites for formal recognition and protection. This approach amplifies the project's scientific legacy and has a major impact, laying the groundwork for future conservation and geotourism initiatives in the Amazon region.

The TADP thus illustrates how ICDP-affiliated drilling projects can serve as powerful platforms for advancing geoconservation, embedding it within broader scientific, educational, and policy contexts. By aligning research objectives with proactive geoconservation practices, such initiatives demonstrate the feasibility and importance of positioning geodiversity management as a core component of large-scale Earth science projects, thereby promoting sustainable development, public engagement, and long-term preservation of geological heritage.