



TECHNICAL AND IMPACT REPORT

Tremarctos Foundation for Threatened Species Conservation



Andean Bear (*Tremarctos ornatus*) Monitoring Expeditions at snow-capped volcano of Tolima, Colombia – 2025

Executive Summary

In 2025, Fundación Tremarctos implemented four field expeditions in the Nevado del Tolima region, Colombia, focused on the long-term monitoring and conservation of the Andean bear (*Tremarctos ornatus*). These expeditions combined scientific monitoring using camera traps, participatory conservation with local communities, and preventive assessment of emerging threats to associated flagship species, such as the mountain tapir (*Tapirus pinchaque*).

Across the four expeditions, ten (10) new camera trap stations were installed, existing stations were serviced, and confirmed Andean bear records were obtained. In parallel, meaningful



progress was achieved in community engagement, including the promotion of a new local monitoring group in the Juntas district (Ibagué municipality). The work contributes directly to evidence-based conservation, landscape-level connectivity, and community stewardship in one of Colombia's most important high-Andean ecosystems.

This report is addressed to international donors and partners, particularly from the United Kingdom, whose support is essential for ensuring the continuity, scalability, and long-term impact of these conservation actions.



1. Background and Context

The Andean bear is the only bear species in South America and is classified as Vulnerable by the IUCN. In Colombia, the species faces increasing pressure from habitat fragmentation, agricultural expansion, infrastructure development, and human-wildlife conflict. The Nevado del Tolima represents a strategic conservation landscape due to its altitudinal gradients, water regulation function, and connectivity between páramo, Andean forest, and sub-Andean ecosystems.



Tremarctos Foundation has worked for over a decade on Andean bear conservation, combining scientific research, community-based monitoring, environmental education, and audiovisual communication. The 2025 expeditions are part of a long-term monitoring programme designed to generate robust data, reduce threats, and empower local communities as active conservation actors.

2. Objectives of 2025 Expeditions

2.1 Scientific and Technical Objectives

- Maintain and expand the camera trap monitoring network for *Tremarctos ornatus*.
- Confirm species presence and habitat use in priority sectors of the Nevado del Tolima.
- Generate baseline and comparative data to support population monitoring over time.
- Assess the potential presence of the New World screwworm fly (mosca barrenadora) as an emerging threat for mammals.

2.2 Social and Conservation Objectives

- Strengthen alliances with landowners and local stakeholders.



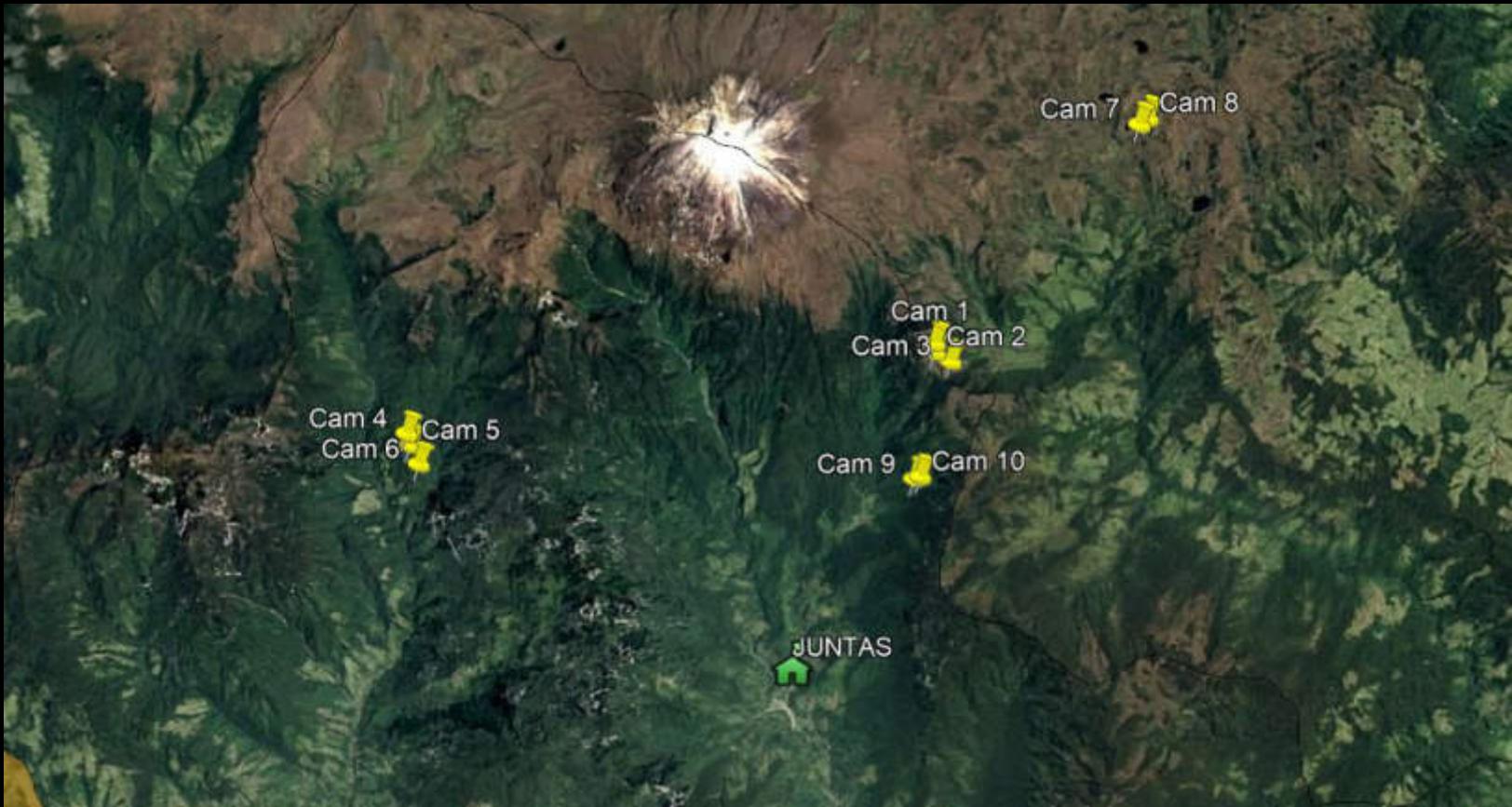
- Promote community-based wildlife monitoring initiatives.
- Engage young people and local leaders in conservation activities.
- Increase local ownership of Andean bear conservation strategies.

3. Methodological Approach

The expeditions followed standardised camera trapping protocols adapted to high-Andean conditions. Camera locations were selected based on previous records, landscape features (animal trails, feeding signals), and local ecological knowledge.

Each expedition included: - Retrieval and review of existing camera trap data. - Installation of new camera trap stations. - Georeferencing and photographic documentation of each site. - Engagement with local community members and landowners. - Complementary qualitative observations related to habitat condition and species presence.





Sites of camera traps installation. 10 cameras in field

4. Expeditions Description

4.1 Expedition 1 – Escuela del Salto Sector

The first expedition was conducted in the Escuela del Salto sector, a priority monitoring area within the Nevado del Tolima landscape. Previously installed camera traps were checked, yielding confirmed photographic records of the Andean bear, demonstrating continued use of the area.

To strengthen spatial coverage, three (3) new camera trap stations were installed. These stations are strategically positioned to improve detection probability and to document both focal and associated species.

Key outcomes: - Confirmation of Andean bear presence. - Installation of three new monitoring stations. - Reinforcement of long-term data continuity in the sector.



4.2 Expedition 2 – Toche, El Bosque Farm

The second expedition took place in the Toche district, specifically at El Bosque farm in the Otunquimbaya sector. The activity was carried out in collaboration with local landowner Don Efrén Espitia and Cristian, a veterinary professional.

In addition to camera trap monitoring, this expedition incorporated a targeted evaluation of the New World screwworm fly, a parasite that has caused severe impacts on mountain tapir populations in other regions of Colombia.

The assessment aimed to determine whether this threat was present in the Tolima region. Field observations indicated very low or no evidence of screwworm fly presence, representing a positive finding for the conservation outlook of *Tapirus pinchaque* in this area.

Key outcomes: - Continued monitoring of Andean bear habitat. - Preventive health assessment for mammals: bears and tapir populations. - Early-warning information to support adaptive conservation management.



4.3 Expedition 3 – Vancouver Farm

The third expedition was conducted at Vancouver Farm, a privately owned property actively supporting conservation initiatives. With the support of Marta Carvajal, two (2) new camera traps were installed to expand the monitoring network.

This expedition highlights the importance of private land stewardship in maintaining habitat connectivity and generating conservation data beyond protected area boundaries.

Key outcomes: - Installation of two new camera trap stations. - Strengthening of partnerships with conservation-minded landowners.

4.4 Expedition 4 – Juntas District, Ibagué Municipality

The fourth expedition took place in the Juntas district of Ibagué municipality, within the Las Perlas stream and river catchment. The fieldwork was carried out with the participation of a biology thesis student (Laura) and a forestry engineer (Juan David). Laura's thesis is about bears diet based on fecal material.

Two (2) camera traps were installed along the watershed, expanding monitoring coverage towards the eastern sector of the Nevado del Tolima.



In parallel, a community meeting was held to support the formation of a local Andean bear monitoring group. Children, young people, and adults from the Juntas community participated in a presentation of Fundación Tremarctos' work, including the role of camera trapping and community monitoring.



This engagement resulted in strong local interest and initial steps towards the creation of a new community-based monitoring group that will actively contribute to Andean bear conservation.

Key outcomes: - Installation of two new camera trap stations. - Community mobilisation and environmental education. - Progress towards a sustainable local monitoring group.

5. Overall Results and Impact

- Ten (10) camera trap stations installed in 2025.
- Confirmed video records of *Tremarctos ornatus*.
- Expansion of monitoring coverage across multiple strategic sectors.



- Preventive assessment of emerging disease threats to mammals populations.
- Strengthened collaboration with local communities, landowners, and young conservation leaders.



Creating the bear monitoring group for the Juntas district

6. Contribution to Donor Priorities

The 2025 expeditions align closely with the priorities of UK-based conservation donors, including: - Evidence-based biodiversity conservation. - Community engagement and capacity building. - Protection of globally significant ecosystems. - Long-term sustainability and local ownership of conservation actions.

Donor support has been instrumental in enabling field logistics, equipment acquisition, and community engagement activities.



7. Conclusions and Next Steps

The four expeditions conducted in 2025 demonstrate Fundación Tremarctos' integrated approach to Andean bear conservation, combining rigorous field science with strong community participation. The results provide a solid foundation for scaling up monitoring efforts, consolidating community groups, and addressing emerging threats in a timely manner. Future priorities include expanding the camera trap network, strengthening data analysis, formalising community monitoring groups, Start building nurseries for native species and produce audiovisual content to promote the project to securing sustained international support to ensure the long-term conservation of the Andean bear and the high-Andean ecosystems of the Nevado del Tolima.

With much gratitude,

Hermes David Juez Pardo

Director