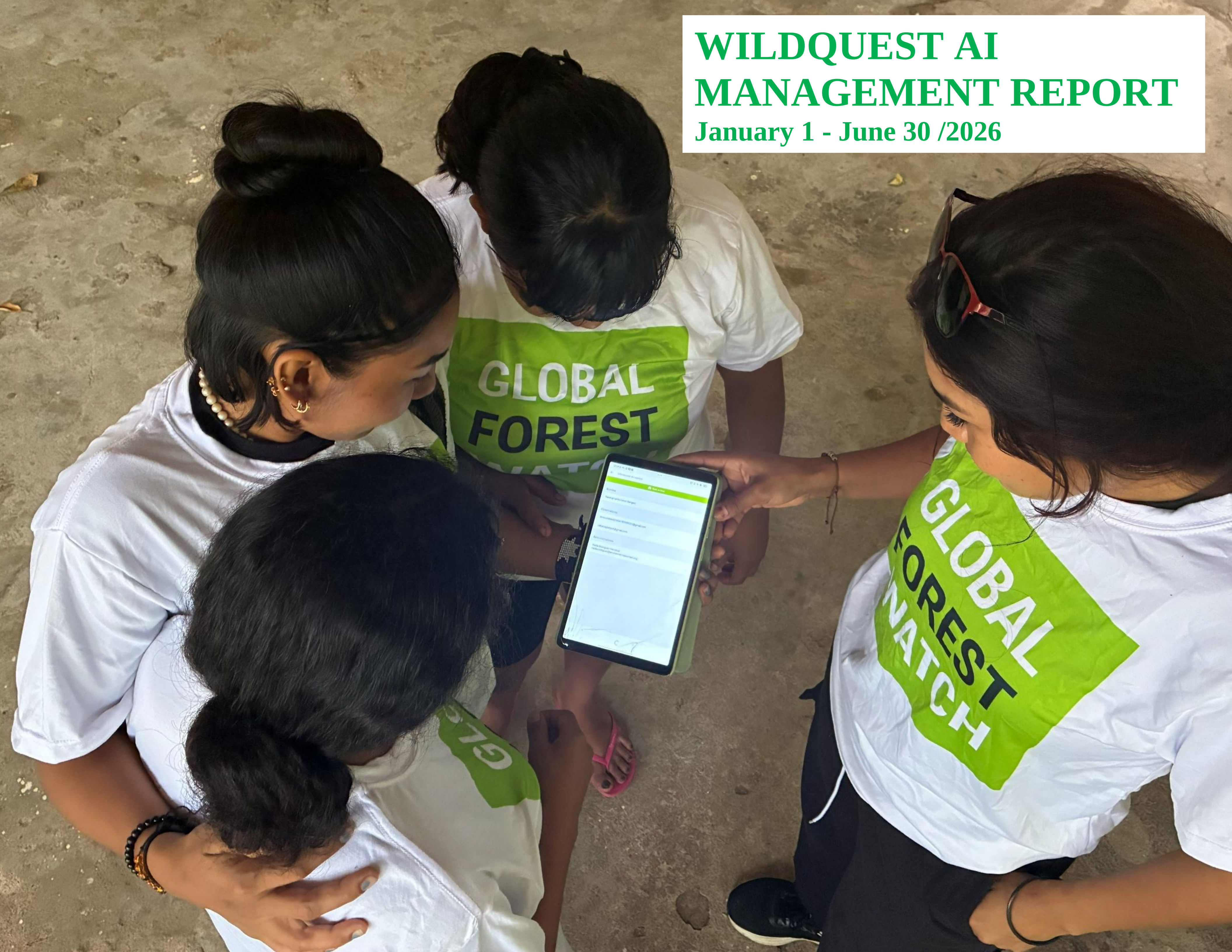
WILDQUEST AI MANAGEMENT REPORT

January 1 - June 30 /2026



WILDQUEST AI

USE AND CONSERVATION IMPLEMENTATION REPORT

Reporting period: 1 January to 30 June / 2026.

Tikuna-adapted Indigenous conservation use · Colombia

Prepared by Environmental Women ORG

Report at a glance

Reporting statement

We report WildQuest use through conservation decisions and ecological or management outputs. The application is the field-information layer inside Indigenous-led conservation programs. The reporting period closes on 30 June 2026.

Indicator	June 2026 use record
Reporting interval	1 January to 30 June/ 2026.
Representative species cases	4 species-focused cases across Amazonian, Caribbean and Sierra Nevada landscapes.
Core WildQuest workflow	Explore → Discover → Register → Protect, adapted to community authorization and feedback.
Tikuna flagship scale	9,800 ha; 300 Tikuna families in the Austroboletus amazonicus program.
Flagship ecological response	25% increase in target-fungus presence reported in protected areas after two years.
Flagship pressure response	40% reduction in harmful human activities inside 15 protected zones covering 1,500 ha.
Data governance	Exact sensitive coordinates retained by the authorized conservation team; external reporting uses generalized locations when required.

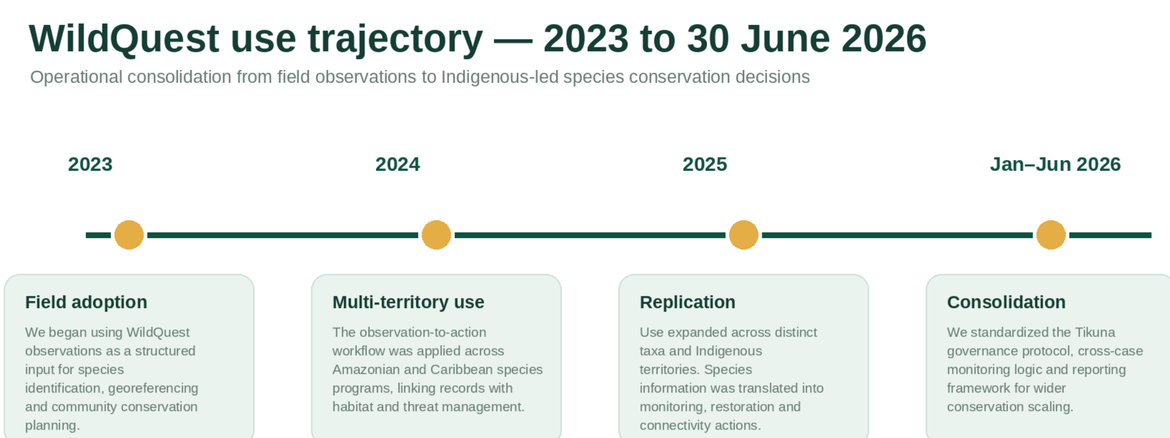


Figure 1. Operational trajectory of WildQuest use from January 2026 through the June 2026 reporting cut-off.

Source: Environmental Women ORG

Report structure

Section	Purpose
1	Executive summary
2	Reporting scope and use trajectory: 1 January to 30 June/ 2026.
3	Tikuna customary governance as the operating framework
4	WildQuest functions used in conservation operations
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9	Implemented case 4 — Santamartamys rufodorsalis and ecological connectivity in the Sierra Nevada
10	Cross-case analysis: what changed because the information became actionable
11	Data governance, sensitive species and Indigenous control of information
12	Performance at the June 2026 cut-off and operational lessons
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1. Executive summary

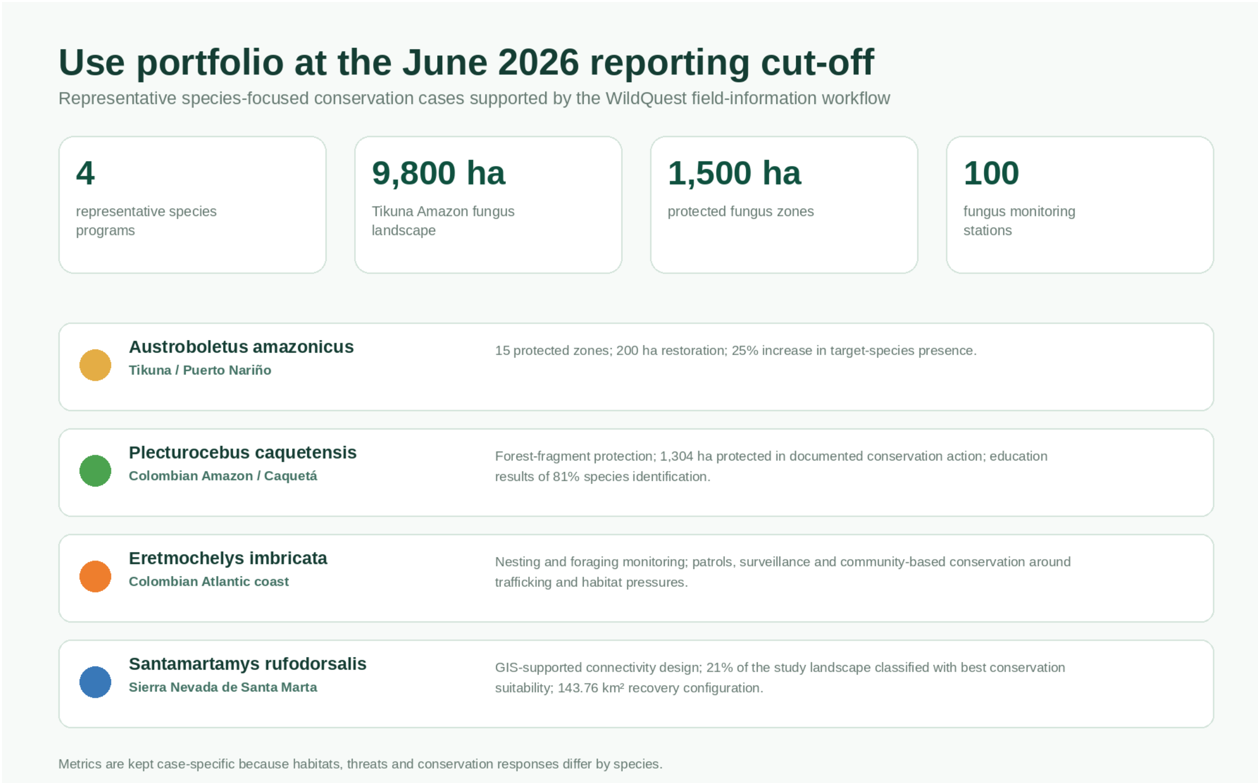

Figure 2. Representative conservation-use portfolio at the June 2026 reporting cut-off.

Source: Environmental Women ORG conservation plans.

This report records how we used WildQuest AI from 1 January to 30 June/ 2026 as a field-information and conservation decision system for Indigenous-led species protection in Colombia. We used the application to structure observations that begin with a photograph or an acoustic record and end with a georeferenced conservation datum. We then connected that datum with community knowledge, habitat information and the conservation problem already identified in each territory. The central result is an operational cycle in which species information supports a defined management response. We report that cycle here because the value of WildQuest in our work appears in the conservation actions that follow the record.

The reporting portfolio covers several Indigenous territories and ecological settings. This document uses four representative species cases because they demonstrate the mechanism with clear ecological differences. The Tikuna case concerns Austroboletus amazonicus in 9,800 hectares of humid tropical forest around Puerto Nariño in the Colombian Amazon. The Caquetá tití case concerns Plecturocebus caquetensis and the protection of forest fragments. The hawksbill case concerns Eretmochelys imbricata on the Colombian Atlantic coast. The Sierra Nevada case concerns Santamartamys rufodorsalis and habitat connectivity in a Narakajmanta conservation context. Our wider conservation portfolio also includes Emberá and other community-led programs.

WildQuest provided a consistent digital entry point across these cases. The public platform supports AI-assisted identification from photographs or bird vocalizations. Each observation can carry location information. Community experts can validate records. The interface also provides map layers for observations, species and protected areas. Threat reporting creates a separate signal for ecosystem pressure. IUCN categories and priority-species missions help direct attention toward organisms that require monitoring. These functions allowed us to standardize the field record while the intervention remained specific to the biology of each species.

The Tikuna use model places Indigenous authority before digital operation. We begin with a conservation question defined within the community. The authorized field team then collects the observation. Elders and other knowledge holders interpret seasonal and territorial meaning after the record is created. Women and youth participate in operational roles because conservation information moves through food systems, family knowledge and field monitoring. The community decides which coordinates can be shared outside the authorized team. This ordering reflects Tikuna practice documented in the Amacayacu region, where elders transmit territorial knowledge to younger generations and the Cabildo participates as a traditional authority in shared territorial governance.

The Austroboletus amazonicus case provides the strongest quantitative view of how the system was used. The conservation program involves 300 Tikuna families across a 9,800-hectare intervention landscape. After two years of implementation, the program reports 15 protected zones covering 1,500 hectares. Harmful human activities inside those zones declined by 40 percent. One hundred monitoring stations recorded a 25 percent increase in the presence of the fungus in protected areas. Two hundred hectares entered active restoration and the restored area recorded a 30 percent increase in overall biodiversity. These results show how observation, monitoring and community management were connected to measurable ecological change.

The same case also shows the social performance required to sustain species conservation. Knowledge of Austroboletus amazonicus increased from 28 percent at baseline to 78 percent after intervention. Six hundred eighty people were trained. Ninety percent of the 300 Tikuna families participated in at least one conservation activity. Twenty agroforestry pilots benefited 100 families and were associated with a 45 percent reduction in deforestation in the intervention areas. The report therefore treats community participation as part of the conservation mechanism. A species record is more useful when the people who manage the landscape can interpret it and act on it.

The other cases demonstrate transferability. In the Caquetá tití program, conservation education increased identification of the species to 81 percent among participating students, recognition of its endemic character to 77 percent and recognition of its threats to 65 percent. The documented conservation process also includes 1,304 hectares of forest protected for the focal primate and associated biodiversity. In the hawksbill program, monitoring through patrols, surveillance, community participation and standardized field methods concentrates action around nesting beaches and foraging areas. In the Santamartamys case, geospatial analysis identifies 331 square kilometres, equivalent to 21 percent of the study landscape, with the best conservation suitability and defines a 143.76-square-kilometre recovery configuration through ecological connectors.

By the June 2026 cut-off, we had therefore moved beyond using WildQuest as a species-identification interface. We had incorporated it into a community conservation architecture. The architecture has six operational controls: community authorization, field observation, validation, collective interpretation, conservation action and ecological feedback. We can apply the same controls to a fungus, primate, marine reptile or terrestrial mammal because the controls govern information quality and decision accountability. The technical response then changes according to habitat, threat and species ecology.

This report is designed for technical evaluation. It describes what the application does, how we used it, how Tikuna customary governance shapes the process and what conservation results are associated with representative implementation cases. Screenshots of the public WildQuest interface are included as visual reference. Those interface captures were prepared from the public website as accessed in August 2026. The operational reporting period closes on 30 June 2026, so later interface presentation is used only to illustrate the functions described in the use record.

Evidence basis: Environmental Women ORG.

2. Reporting scope and use trajectory: 1 January to 30 June/ 2026.

Figure 3. WildQuest use trajectory from initial field adoption to the June 2026 consolidated operating framework.

Source: Environmental Women ORG operational synthesis.

We define the reporting period as the operational interval from 1 January to 30 June/ 2026. During this period, WildQuest became the common observation layer used to organize species information across conservation initiatives that were already governed by community priorities. The application gave field teams a repeatable way to create a biological record. Each record could carry a species identification, media evidence and a location. This structure made information easier to compare across field visits and easier to transfer into a conservation program. Our use therefore developed through practice in the territory rather than through a stand-alone software deployment.

In January, we concentrated on the first operational problem: converting an encounter with wildlife into a record that could later support a decision. Field teams needed a method that worked with the way Indigenous monitors actually move through forest and river landscapes. A photograph or sound had to be captured quickly. The location had to remain attached to the observation. The record had to remain interpretable after the monitor returned to the community. We therefore treated WildQuest as a field notebook with identification support and spatial memory. This initial use established the data discipline that later made cross-project application possible.

During 2024, the conservation value of the workflow became clearer because records were being connected with different types of interventions. The Amazon work linked occurrence information with forest protection and community education. Coastal work linked wildlife information with nesting habitat and trafficking pressure. Species identification remained the first technical step. Management questions became the second step. We began to distinguish species observations from threat reports because the two data types trigger different actions. A verified species location can define where to return. A verified threat location can define where to patrol, restore or open a community management discussion.

During 2025, replication across taxa became an operational test of the model. A platform that serves several species must preserve a stable information structure while allowing conservation actions to change. We kept the stable elements simple: observation, location, validation and mission context. The Santamartamys connectivity work illustrates the spatial use of this approach because occurrence and habitat information can be read against forest remnants, water, roads and population pressure. The Austroboletus work illustrates repeated monitoring because protected zones and monitoring stations require return visits. The hawksbill work illustrates temporal sensitivity because nesting and foraging activity change the priority of specific coastal sites.

Between January and June 2026, we focused on consolidation. The same observation could no longer be treated as the end of the process. We formalized the information chain from field evidence to community decision. The six control points used in this report emerged from that need. Community authorization defines purpose. Observation creates the record. Validation controls taxonomic confidence. Collective interpretation adds territorial meaning. Conservation action gives the record an operational consequence. Feedback uses a later field cycle to measure change. The structure makes responsibility visible at every stage.

We also consolidated the Tikuna governance adaptation during the first half of 2026. The community protocol reflects a practical fact: technical data enters a territory where knowledge already has owners, rules and social meaning. We therefore keep sensitive local knowledge under community control. A scientific name can be shared when appropriate. A culturally restricted site may remain outside the public record. A precise coordinate can be generalized before external dissemination. This approach allows us to generate evidence for conservation partners while protecting the knowledge and locations that Indigenous authorities choose to restrict.

Several programs have longer histories and several plans contain earlier conservation work. The period describes WildQuest-linked use within our current conservation practice. We used the application to strengthen ongoing monitoring and to organize newer species-specific interventions. This distinction matters because the application functions as an enabling layer inside community conservation. The conservation institutions, community agreements and ecological knowledge extend beyond the software timeline.

We measure use through what the information enabled in the field. We track whether a record led to repeat monitoring. We track whether threat information affected patrol or restoration attention. We track whether a community decision established a protected zone or changed a land-use practice. We track whether a later monitoring cycle detected ecological change. App session counts can describe digital activity. Conservation outputs describe operational value. This report therefore gives priority to hectares, monitoring systems, participation and ecological change where the project documents provide those figures.

The resulting trajectory is consistent across the four representative cases. WildQuest first reduces the friction of producing a usable species record. The community then places the record within territorial knowledge. The technical team connects the record to habitat or threat data. A community decision assigns the response. A new field cycle checks the result. By June 2026, this sequence had become the core method used to explain and manage the role of the application in our conservation portfolio.

Evidence basis: Environmental Women ORG operational record for WildQuest use, 1 January–30 June 2026; public WildQuest functions used as technical reference.

3. Tikuna customary governance as the operating framework

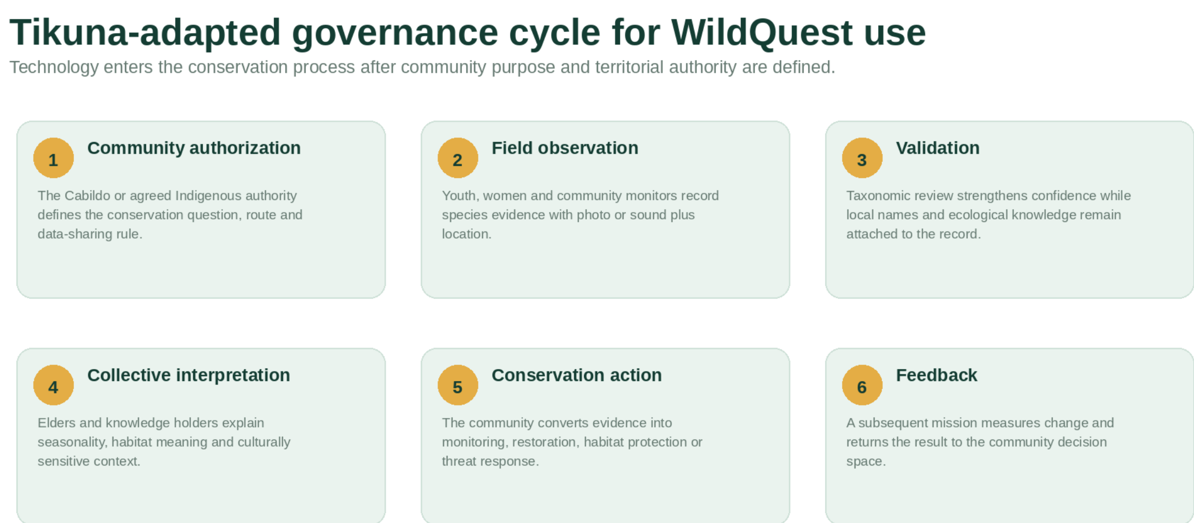

Figure 4. Tikuna-adapted governance cycle used to place Indigenous authority around the WildQuest field-information process.

Source: Environmental Women ORG operational adaptation; Tikuna context informed by Parques Nacionales Naturales de Colombia.

Control point	Primary actor	Operational result
Authorization	Community authority / Cabildo	Conservation question, route and information-sharing rule are defined before collection.
Observation	Community monitor	Photo or sound record is attached to a location and mission context.
Validation	Expert validator	Taxonomic confidence is confirmed before priority

Control point	Primary actor	Operational result
		management use.
Interpretation	Elders / knowledge holders	Seasonal, ecological and cultural meaning is added to the record.
Action	Community and technical conservation team	Monitoring, restoration, habitat protection or threat response is assigned.
Feedback	Community review	A later mission measures change and informs the next decision.

Our use of WildQuest in Tikuna territory begins with collective purpose. We do not enter the forest to collect unrestricted data. The community defines the conservation question before the device is opened. This approach is consistent with documented Tikuna territorial governance in the Amacayacu region, where the Cabildo acts as a traditional authority and works through community processes related to the management of shared territory. The conservation mission therefore begins with an agreed species, area or threat. The field route follows that purpose. This sequence gives the data a legitimate place inside community decision-making.

Intergenerational transmission is central to the way we interpret observations. Parques Nacionales Naturales de Colombia documents a decade-long Tikuna process in San Martín de Amacayacu in which grandmothers and grandfathers shared knowledge with younger community members. Young people listened, recorded, translated and organized practical sessions so that the knowledge could continue. We apply the same logic to conservation monitoring. A young monitor can create a georeferenced WildQuest record. An elder can explain seasonality, habitat signals and local meaning. The two contributions become stronger when they are read together.

We use the chagra as a practical reference for understanding the relationship between livelihood and biodiversity. The Tikuna chagra is a space of food production, medicinal knowledge and cultural transmission. Public conservation work in Amacayacu has highlighted the role of women and ancestral knowledge in chagra biodiversity. This matters to WildQuest because a species record can sit next to a land-use decision. In the Austroboletus program, agroforestry and sustainable harvesting affect fungal habitat. Women who understand the productive landscape can therefore help interpret whether a new record indicates ecological recovery, pressure or a change in forest use.

Women participate in the information cycle as operational conservation actors. We include women in mission planning, field observation, educational work and review of land-use responses. This role follows the reality of Tikuna community life, where women participate in chagra management and intergenerational transmission. The application creates an additional instrument for that work. A georeferenced record can help connect the location of a threatened organism with the practices occurring around it. The conservation program can then adjust education or productive activities with the people who manage those spaces.

We use language as part of data quality. WildQuest uses scientific identification because it must connect observations with broader conservation information. The community can retain Tikuna names and local descriptions in the parallel field record. The scientific name helps compare records across institutions. The local name carries relationships that a taxonomic label may not express. We preserve both when the community chooses to do so. This practice supports communication between generations while keeping the record usable for technical analysis.

Sensitive places receive a separate treatment. A critically endangered species can become more vulnerable if a precise coordinate circulates without control. The same risk applies to nesting sites, collection areas and places with cultural restrictions. We therefore use the exact location inside the authorized conservation team when it is needed for management. External products can use a generalized location. Community authorities decide whether a cultural description can leave the territory. This rule protects the species and respects Indigenous data sovereignty at the same time.

Collective review is the point where the digital record becomes a conservation decision. Field monitors return with validated observations and threat reports. Knowledge holders add ecological context. The conservation group examines whether the record changes the understanding of the species or the pressure. The authority then assigns the response. A response can be a repeat route, a temporary avoidance area, a restoration action or a community agreement. We record the decision so that the next monitoring cycle has a clear question to answer.

The Tikuna framework therefore divides responsibility across six actors or functions. The authority controls mission purpose. The field monitor controls record quality. The validator controls taxonomic confidence. Knowledge holders interpret territorial meaning. The technical conservation team translates evidence into spatial or ecological options. The community decides whether the proposed response fits its governance and livelihood context. This division prevents the application from concentrating decisions in the hands of the person who owns the phone.

The approach also protects reciprocity. Community members produce biodiversity information because that information returns to the territory as a useful action. We use maps to plan monitoring. We use records to protect habitat. We use conservation results in education. We use repeated observations to show whether a decision worked. Data therefore moves in a circle rather than in a one-way extraction process. The cycle is complete when the community receives the result and uses it to decide the next action.

By June 2026, this governance adaptation had become part of our standard explanation of WildQuest use. It allowed us to present the same technology without presenting Indigenous communities as passive data collectors. Tikuna families are participants in conservation design, implementation and review. The application serves that process by reducing the time between observation and organized evidence. The authority over the conservation purpose remains in the community.

Evidence basis: Environmental Women ORG operational adaptation; Parques Nacionales Naturales de Colombia sources on Tikuna elders, youth transmission, Cabildo authority, chagra and territorial conservation.

4. WildQuest functions used in conservation operations

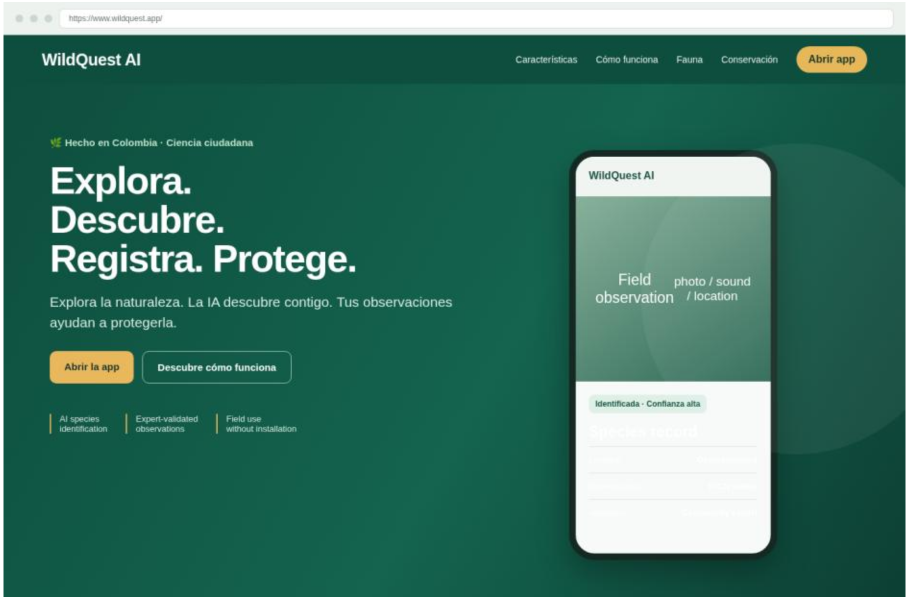

Figure 5. WildQuest public interface: field entry point for the Explore–Discover–Register–Protect sequence.

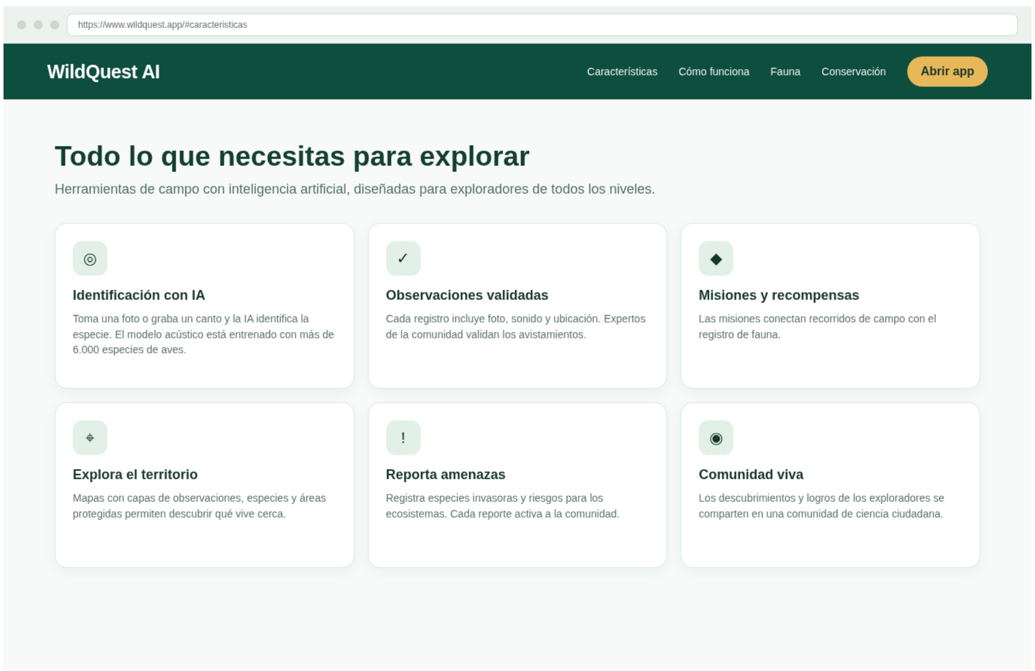

Figure 6. Public WildQuest feature view used to explain identification, validation, missions and mapping

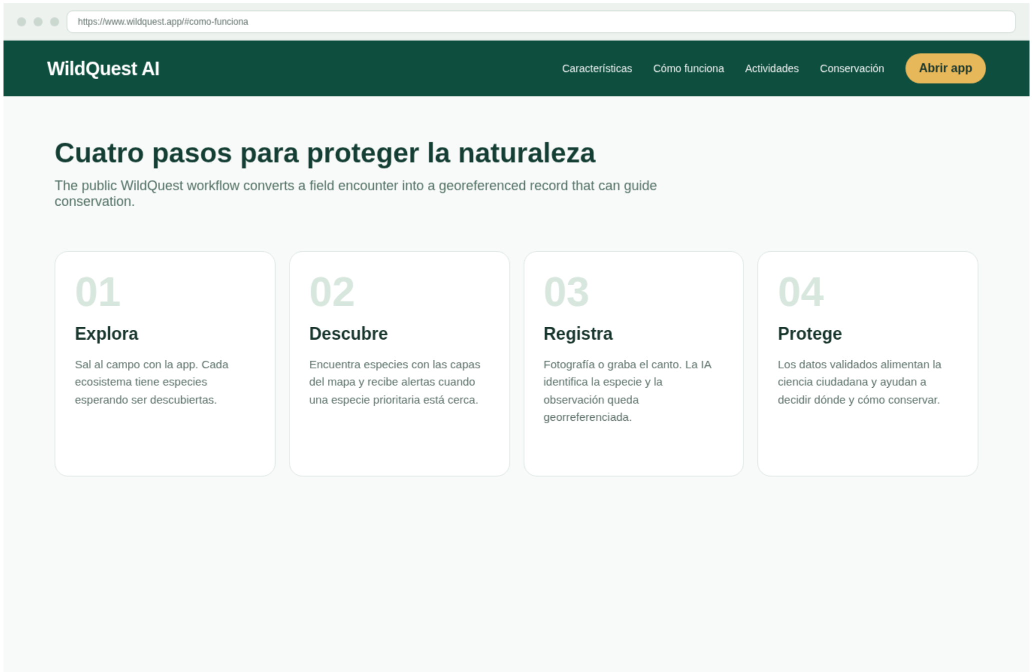

Figure 7. Four-step conservation workflow shown in the public WildQuest interface.

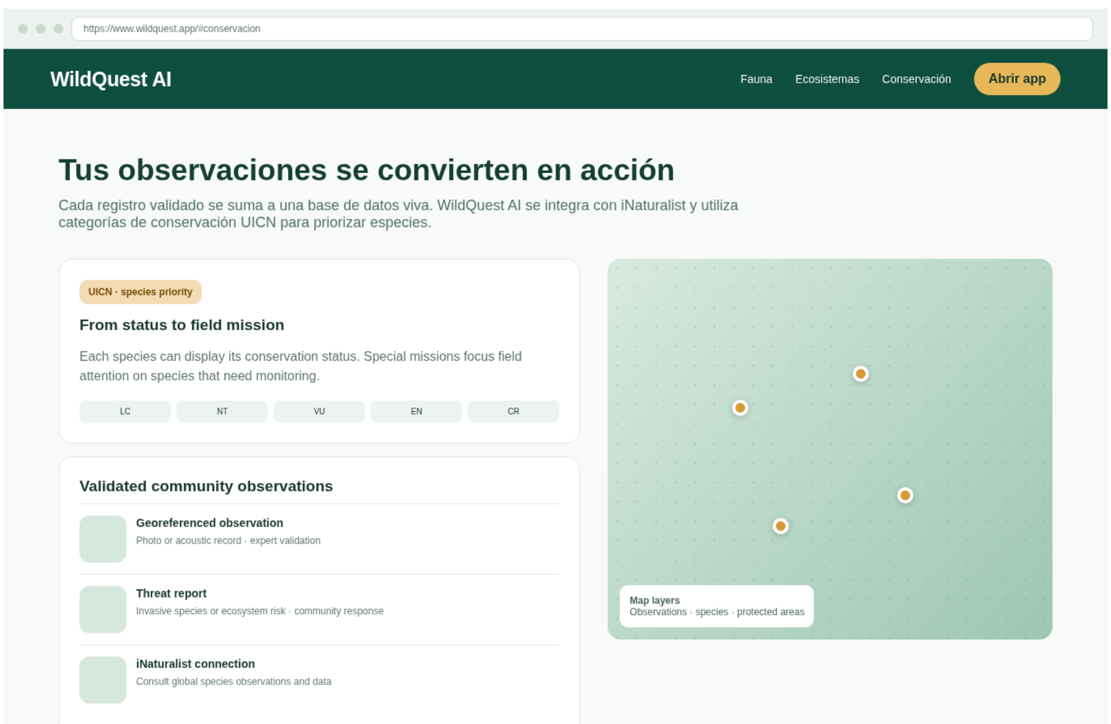

Figure 8. Conservation view: priority status, validated observations, map layers and iNaturalist connection.

The public WildQuest interface presents a simple field logic: Explore, Discover, Register and Protect. We used these four functions as an operational sequence. Explore organizes the field context. Discover directs attention to species and priority information. Register creates the observation. Protect connects the validated datum with a conservation decision. The sequence is useful because it mirrors the actual movement of a field mission. A team first enters a landscape, then finds evidence, then records it, then decides what to do with the information.

AI-assisted identification reduced the time required to turn media into a provisional species record. WildQuest allows a user to photograph an organism or record a bird call. The public platform states that its acoustic model is trained on more than 6,000 bird species. In our use, the AI suggestion was an identification aid at the point of encounter. The record still passed through validation when it affected a priority-species decision. This separation gave us speed in the field and a stronger quality control before management use.

Georeferencing was the most important technical feature for conservation planning. A species name without a place has limited value for habitat management. A location allows us to compare the record with forest fragments, restoration polygons, protected areas or pressure sites. It also allows a later mission to return to the same area. In the Santamartamys case, spatial information supports connectivity analysis. In the fungus case, it supports repeated monitoring inside protected zones. In the hawksbill case, it supports attention around reproductive and foraging habitat.

Media evidence increased the interpretability of each observation. A photograph records visible morphology and condition. An acoustic record can document species presence when visibility is low. We kept media linked to the observation so that validators and community members could review the same event after the field mission. This practice reduces dependence on memory. It also supports education because a local observation can be used in community learning without creating a new collection event.

Expert validation added a control between observation and action. WildQuest describes community-expert validation as part of the platform. We used validation most strongly for priority records. A conservation response can require investment in patrol, restoration or habitat protection. The identification therefore needs a level of confidence appropriate to the decision. Validation also creates a learning loop for field monitors because corrected records improve later observation quality.

Map layers supported route planning and spatial interpretation. The public platform describes layers for observations, species and protected areas. We used this type of view to decide where field effort was missing. A cluster of existing observations can show a well-covered zone. An ecologically suitable area with few records can become a new mission priority. A protected-area boundary can also reveal whether a species is using habitat outside the current management unit. These comparisons help allocate limited field time to areas where a new observation changes knowledge.

Threat reporting created an operational link between biodiversity monitoring and pressure management. WildQuest allows reports for invasive species and ecosystem risks. We adapted the same logic to the threats defined by each conservation program. A hawksbill program can focus on trafficking, beach disturbance or habitat degradation. A forest mammal program can focus on fragmentation or hunting pressure. A fungus program can focus on forest disturbance or unsustainable extraction. Threat reports remain separate from species records so that the team can analyze presence and pressure independently.

IUCN status provided a common priority language. The platform displays conservation categories from Least Concern to Critically Endangered and supports special missions for priority species. We used global status as one input in the mission design. Local decline and cultural importance also influence priority. This combined method keeps international conservation criteria connected with territorial knowledge. The program can then explain why a species received more monitoring effort without reducing the decision to a single external category.

The iNaturalist connection described by WildQuest provided a broader reference context. External observations can help a monitor understand distribution and possible nearby records. We kept the community record as the operational unit for local decisions because it carries mission context and community interpretation. The external layer is most useful when the local team is planning where to search or comparing a local detection with a wider species pattern.

The platform runs from a browser and the public website states that it works without installation and supports offline use. This architecture is relevant in Amazonian and rural territories because connectivity can change within a single route. We prepared the mission before entering low-connectivity areas. We kept a parallel field log when needed. We synchronized records when connectivity returned. The field method therefore remains functional even when the network is intermittent.

We used missions as a way to turn field effort into a defined conservation task. A mission is more useful when it has a focal species or a specific pressure question. The team can then compare completed routes with the intended sampling design. This is different from opportunistic observation because the mission has a reason for being in that location. By June 2026, our use model had moved toward mission-based monitoring for priority species and management sites.

The screenshots in this report show the public interface used to explain these functions. They are visual references to the platform's current presentation. The conservation use described in this report closes on 30 June 2026. The functions shown in the captures correspond to the field workflow used in the reporting period: identification, georeferenced observations, validation, mapping, missions, threat reporting and conservation prioritization.

Evidence basis: WildQuest AI public website, accessed 30 August 2026. The reporting cut-off for conservation use remains 30 June 2026.

5. Field-to-decision methodology used by our conservation teams

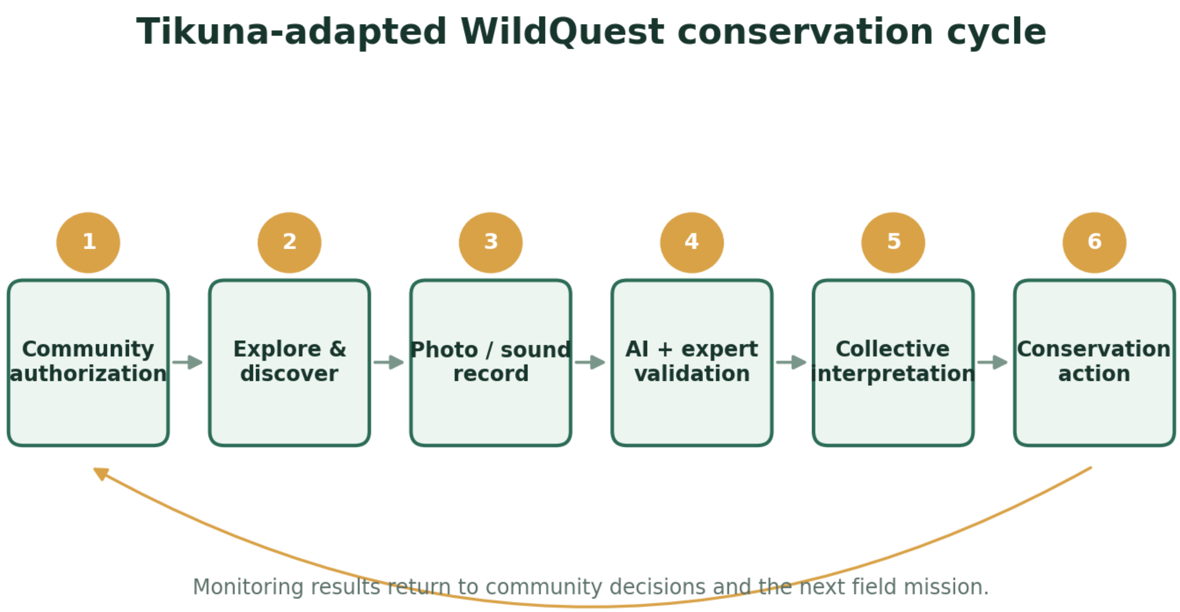

Figure 9. Field-to-decision cycle used to connect WildQuest observations with conservation management.
Source: Environmental Women ORG operational synthesis.

Stage	Control question	Evidence
Mission	Why are we entering this site?	Approved conservation question and route.
Observation	What did we detect?	Media, species identification and geolocation.
Validation	Can the record support a decision?	Expert review and quality check.
Interpretation	What does the record mean in this territory?	Community ecological context and habitat analysis.
Action	What management response follows?	Protection, restoration, monitoring or threat response.
Feedback	Did the condition change?	Repeat observation, pressure trend or habitat result.

We structured each WildQuest use cycle around a conservation question. A good question names the species, the place and the management uncertainty. An example is whether Austroboletus amazonicus continues to occur inside a restored forest patch. Another example is whether a Santamartamys habitat node remains isolated from nearby forest. The question determines where the team goes and what evidence it needs. This prevents field activity from becoming a collection of unrelated sightings.

We assigned a mission code before departure. The code linked the route, focal species, date and field team. Each WildQuest record could then be read inside that mission context. A record from a routine transect has a different meaning from a record collected during a threat-response visit. The mission code allowed us to preserve that difference without overloading the application with narrative text. The parallel mission log held the community details that did not belong in the public data layer.

We used a low-disturbance capture rule. The field team obtained the minimum media required to support identification and then moved away. The method is especially important around nests, breeding sites and critically endangered species. Repeated photography can become a disturbance if the team remains too long. We therefore prioritized a usable record over a large number of images. This practice aligns monitoring quality with species protection.

We separated observation quality from observation quantity. A usable record has media evidence, a plausible location and enough context for later review. A priority record also has validation. Ten ambiguous records cannot replace one high-confidence record when a corridor decision depends on the species being present. We therefore used data quality checks before records entered the management dataset. The check was simple enough to apply in the field and strong enough to support later technical analysis.

We separated species data from threat data because the causal relationship is clearer when the two can be compared. A species observation can show persistence. A threat report can show pressure. When both occur in the same habitat unit, the team can define a management response. A later mission then checks whether the threat changed and whether the species remained present. This structure creates an adaptive management loop with a measurable cause-and-response sequence.

We interpreted the records in a community review space. The map can show where the observation occurred. Elders and other knowledge holders explain whether the site fits expected seasonality or habitat. Women can connect the location with chagra or productive practices where relevant. The technical team can compare the record with previous monitoring. The authority then decides whether the evidence justifies action. This collective step prevents a technical analyst from making a territorial decision from a map alone.

We classified actions by the type of conservation problem. A habitat problem leads toward restoration or connectivity. A direct-threat problem leads toward patrol, education or community rules. A knowledge gap leads toward repeated monitoring. A reproductive-site problem leads toward seasonal protection. This classification helped us use the same application across species with different ecologies. The platform organizes the observation. The ecological diagnosis organizes the response.

We closed the cycle with follow-up. A conservation decision without a return visit gives us an output but little information about ecological effect. We therefore used later observations to test whether the condition changed. The Austroboletus monitoring system demonstrates this logic because the program reports change in species presence inside protected areas. Restoration results provide another example because biodiversity change was measured after intervention. The feedback step converts management from a one-time action into a learning process.

By June 2026, this methodology gave us a consistent reporting structure. We could explain effort through missions and monitoring stations. We could explain data quality through validation. We could explain management response through protected zones, patrols or restoration. We could explain ecological result through species presence or habitat condition. This structure is useful for community review and for external technical evaluation because each level answers a different question.

Evidence basis: Environmental Women ORG WildQuest field-use protocol synthesized from implemented conservation practice.

6. Implemented case 1 — Austroboletus amazonicus in Tikuna territory

Figure 10. Austroboletus amazonicus, focal species of the Tikuna flagship case.

Source: Environmental Women ORG project archive.

Implemented component	Documented result
Territorial scale	9,800 ha of humid tropical forest; 300 Tikuna families.
Protection	15 protected zones covering 1,500 ha; 40% reduction in harmful human activities.
Monitoring	100 stations; 25% increase in target-fungus presence in protected areas.
Restoration	200 ha under active restoration; 30% increase in overall biodiversity reported.
Community learning	Knowledge rose from 28% to 78%; 680 people trained.
Participation	90% of 300 Tikuna families participated in at least one conservation activity.
Reintroduction	Spores from 60 mature individuals; 1,200 individuals reintroduced.

Implemented component	Documented result
Agroforestry	20 pilots benefited 100 families; 45% deforestation reduction reported in intervention areas.

The Austroboletus amazonicus program is our clearest example of WildQuest information being embedded in an Indigenous-led conservation system. The intervention is located in the Colombian Amazon basin around Puerto Nariño. The conservation plan covers 9,800 hectares of humid tropical forest and directly involves 300 Tikuna families. The focal organism is a threatened Amazonian fungus whose survival depends on forest condition and careful resource use. The program therefore links species monitoring with habitat protection. This relationship makes georeferenced observations particularly valuable because the location of the fungus can guide management of the surrounding forest.

The initial conservation logic began with spatially explicit sampling. The plan establishes 50 plots of 10 by 10 metres for repeated monitoring. GPS is identified as a field instrument for georeferencing those plots. The design also uses camera traps and soil sampling to understand the ecological setting. WildQuest strengthened the species-observation layer inside that larger monitoring architecture. A field record can connect a confirmed occurrence with the plot, protected zone or restoration area in which it was found. The monitoring team can then compare return observations through time.

Community education is part of the species-survival mechanism. The plan targets all 300 Tikuna families with educational work on the biology, ecology and conservation of Austroboletus amazonicus. It also includes participatory workshops and youth conservation ambassadors. This design is important because the species can be affected by land use and harvesting decisions that occur outside formal monitoring hours. A family that recognizes the fungus can avoid unnecessary disturbance and can report a new occurrence. WildQuest supports that recognition by giving the community a repeatable way to connect an organism with a record and a location.

After two years of implementation, 15 protected zones had been established across 1,500 hectares. The project reports a 40 percent reduction in human activities potentially harmful to the fungus inside those zones. This is a management result. The information chain is clear: the program identifies where protection is needed, the community establishes a spatial rule, monitoring checks the protected area and the project measures pressure change. WildQuest fits at the beginning and the monitoring end of that chain because georeferenced species records and threat information help define where attention is required and whether the site remains suitable.

The monitoring system reached 100 stations. Those stations recorded a 25 percent increase in the presence of Austroboletus amazonicus in protected areas. This indicator is especially important because it moves beyond a count of conservation activities. The species itself is part of the performance measure. WildQuest observations can make that result easier to interpret spatially because the team can see where repeated detections occur and where the species remains absent. The monitoring map can then guide the next field cycle.

Active restoration covered 200 hectares. The plan reports a 30 percent increase in overall biodiversity in the restored area. We use this result to show how species information can influence habitat work. A fungus cannot be managed independently from soil, vegetation and microclimate. The field team therefore reads the target species alongside habitat condition. A new detection in restored habitat can become evidence that ecological processes are returning. A lack of detections can trigger additional assessment before the restoration design is changed.

The ex situ and reintroduction components provide another layer of conservation action. Spores were collected from 60 mature individuals. Three controlled-culture techniques were developed. Five hundred individuals were maintained in specialized culture. The program reports that 1,200 individuals were reintroduced into previously degraded areas, exceeding the initial target by 20 percent. WildQuest can support post-reintroduction monitoring because each reintroduction area can become a priority mission and later occurrence records can be compared with the known intervention site.

Community learning changed substantially. Baseline surveys showed that 28 percent of respondents knew about the fungus. After intervention, the reported level reached 78 percent. Six hundred eighty people were trained and participants recorded a 50 percent increase in knowledge and conservation commitment. These figures explain why the application is used as a community tool rather than as a specialist-only platform. Species recognition must reach the people who use the landscape. The digital record becomes more powerful when a larger share of the community can identify the conservation issue and understand why a location is being protected.

Participation also reached a level that supports long-term management. Ninety percent of the 300 Tikuna families participated in at least one conservation activity. Twenty agroforestry pilot projects benefited 100 families. The program reports a 35 percent increase in family income among beneficiaries and a 45 percent reduction in deforestation in the intervention areas. These results connect biodiversity conservation with livelihood practice. The WildQuest record can show where the focal species occurs. The community program can then shape productive activity around the habitat that needs to remain intact.

Ecotourism added a conservation-linked income stream. The program reports 1,200 visitors over two years and USD 250,000 in additional community income. This result is relevant to use of the application because verified species information can support interpretation and conservation education without releasing sensitive exact coordinates. Visitors can learn that the landscape contains a threatened fungus and can understand the protection measures. The community retains control over where tourism is allowed. This approach separates educational value from unrestricted access to vulnerable sites.

By June 2026, the Austroboletus case demonstrated the full WildQuest conservation cycle. We had a defined focal species. We had a 9,800-hectare territorial context. We had repeated monitoring. We had protected zones and restoration. We had measurable pressure reduction and species response. We had extensive Tikuna participation. The case therefore shows how a digital observation system can be embedded in a community-managed conservation program and remain accountable to ecological results.

Evidence basis: Environmental Women ORG, Conservation Plan for the Amazon Fungus 'Austroboletus amazonicus' in the Colombian Amazon Basin.

7. Implemented case 2 — Plecturocebus caquetensis and forest-fragment protection

Figure 11. Plecturocebus caquetensis, focal primate used in the forest-fragment case.

Source: Environmental Women ORG project archive.

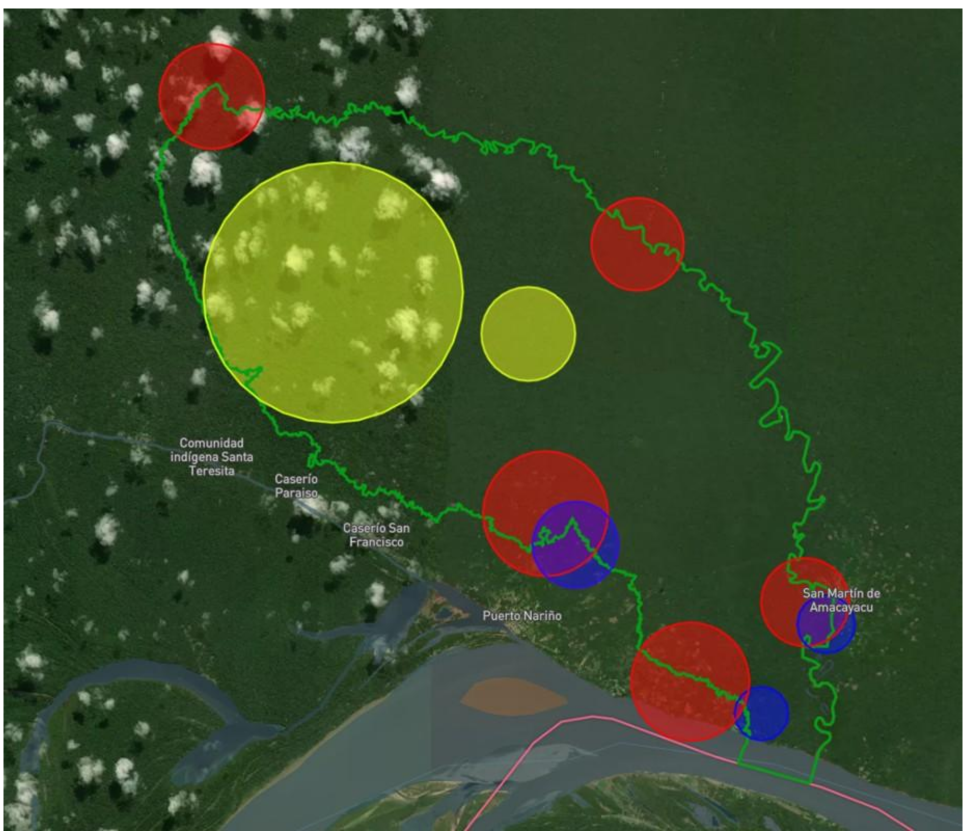

Figure 12. Project-archive map used to organize species, pressure and Indigenous-settlement information in the Amazon/Caquetá program.

Source: Environmental Women ORG project archive.

Performance element	Documented value
Species recognition in education	81% among participating students.
Recognition of endemic character	77% among participating students.
Recognition of threats	65% among participating students.
Direct forest-protection result	1,304 ha protected for the focal primate and associated biodiversity.

The Plecturocebus caquetensis conservation program addresses a forest primate affected by habitat destruction, fragmentation and hunting for illegal wildlife trade. The plan describes the species as Critically Endangered and links its decline to extensive ranching, illegal crop expansion and contamination associated with defoliant spraying. The conservation problem is spatial because the primate depends on fragmented forest habitat. It is also social because wildlife trade and pressure on forest resources are connected with local livelihoods. WildQuest use in this context focused on species presence, habitat interpretation and education.

The program's landscape work demonstrates why a georeferenced observation matters. The focal primate uses small territories and family groups. A field record can show that a specific forest fragment is occupied. Repeated observations can show persistence. When the record is compared with satellite or GIS information, the team can identify whether the fragment is isolated or connected. The conservation decision can then prioritize protection or restoration around occupied habitat. This is the same data logic used in WildQuest: a species record gains management value because it carries a place.

The conservation plan includes a 72-square-kilometre project area associated with Indigenous settlements in the Caquetá-Amazon region. It also describes scientific field observations and a long history of work on habitat and population condition. We use WildQuest within that broader process as a standard field interface. The application helps organize observations across repeated visits. The community record can also store the local context that explains why a particular forest patch is important. This combination connects digital monitoring with territorial knowledge.

Education is a major intervention pathway in this case. The program developed structured learning materials and field experiences so that students could identify the focal primate, understand its endemic character and recognize the threats that affect it. Reported results show species identification reaching 81 percent among participating students. Recognition of endemic status reached 77 percent. Recognition of threats reached 65 percent. These figures matter because successful forest protection depends on whether local people can connect a specific primate with the habitat pressures occurring around them.

The educational process also changed behavioural understanding. The program reports stronger commitment among students to avoid capturing, selling or buying wild animals. It also increased understanding of sustainable development opportunities linked to forest protection. WildQuest complements this learning because a student or youth monitor can move from a lesson about the species to a real field observation. The record carries the species name and location. The observation therefore becomes a bridge between education and conservation practice.

The program documents 1,304 hectares of forest protected through a direct conservation action associated with the focal primate and the other biodiversity sharing its habitat. We use this figure as a habitat-management result. It shows that the conservation process is capable of moving from information to spatial protection. WildQuest does not create a protected area by itself. It contributes the occurrence evidence and repeatable monitoring needed to explain why a fragment matters and to keep checking whether the focal species continues to use it.

Community development is part of the threat-reduction logic. The program links conservation with income alternatives intended to reduce dependence on timber extraction and wildlife capture. This mechanism is important when a threat is driven by household need. A conservation map can identify a high-value forest fragment. A livelihood intervention can then reduce the incentive to cut or hunt in that same area. WildQuest helps keep the biological signal visible while the community program works on the economic driver.

Our use of the application in the primate case therefore concentrated on three linked questions. The first question was where the species occurs. The second was whether the occupied forest remains connected and protected. The third was whether community behaviour around wildlife and forest use is changing. These questions require different evidence. WildQuest provides the species occurrence layer. GIS provides the habitat layer. Education and community monitoring provide the social layer. We interpret the three together.

By the June 2026 cut-off, the primate case demonstrated that WildQuest can support conservation where the primary response is habitat protection rather than fixed-station monitoring. The same field controls remained useful: mission purpose, georeferenced observation, validation, interpretation and follow-up. The ecological intervention changed because the species ecology changed. This is the central reason we consider the platform replicable across Indigenous conservation programs.

Evidence basis: Environmental Women ORG, Conservation Program 2022–2032 of the Caquetá Tití Monkey (Plecturocebus caquetensis) in the

Colombian Amazon Basin.

8. Implemented case 3 — Eretmochelys imbricata on the Colombian Atlantic coast

Figure 13. Eretmochelys imbricata, focal species of the Atlantic-coast implementation case.
Source: Environmental Women ORG project archive.

Conservation mechanism	Operational use
Nesting / foraging observations	Georeferenced species records organize repeat monitoring around priority sites.
Patrols and surveillance	Threat information supports route attention and community response.
Volunteer monitoring	Standard missions allow records from different observers to be reconciled.
Sensitive-site control	Exact nesting coordinates remain restricted; generalized locations are used externally.
Community tourism	Species information supports interpretation while access to vulnerable sites remains controlled.

The hawksbill turtle program addresses Eretmochelys imbricata, a Critically Endangered marine turtle whose conservation depends on nesting beaches, foraging habitat and control of direct extraction. The action plan identifies poaching of nests, capture of juveniles and adults, illegal shell trade, coastal erosion and degradation of marine habitat as major pressures. The species therefore requires a monitoring system that connects coastal observations with rapid protection decisions. WildQuest is useful in this context because a field record can carry a precise place and time while the community retains control over sensitive nesting coordinates.

The project map identifies nesting and foraging areas, Narakajmanta Indigenous communities and illegal trafficking routes. This spatial combination shaped the way we use species information. A turtle record can indicate presence at a beach or coastal feeding zone. A threat report can indicate extraction or trafficking pressure in the same region. When these data types are reviewed together, the conservation team can decide whether the site requires more patrol attention, education or coordination with an environmental authority. The application therefore helps connect biological presence with a pressure response.

The action plan describes conservation work on major nesting beaches that includes nurseries, research, monitoring through patrols and surveillance. It also describes protected areas and special coastal-marine management zones. These are field-intensive mechanisms. A monitoring team must know where it went, what it saw and whether the same pressure appears again. WildQuest provides a repeatable observation format for that work. The route and community log add the operational detail required for patrol management.

Annual monitoring at the Ensenada de Rionegro district is described as a community-linked conservation action. The plan also includes protection of nests in La Playona, Playón and Acandí. It cites patrols intended to stop illegal trafficking in La Guajira. These measures show the diversity of actions required for one species. WildQuest helps unify the observation layer across those actions. The same species record can be used in a beach patrol, a foraging-area survey or an education activity because the core information structure remains consistent.

We treat reproductive locations as sensitive information. The plan identifies nesting sites across La Guajira, Magdalena, Bolívar, Sucre, Córdoba, Antioquia and Chocó. An exact nest location can increase risk if it reaches people involved in egg collection or illegal trade. We therefore keep the highest spatial resolution within the authorized conservation team. Public maps can show a beach segment or general zone. This rule allows the program to demonstrate monitoring coverage without exposing the places that need protection.

The plan calls for standardized monitoring methodology on beaches and open water. It also calls for continuous volunteer training and organized tours of priority nesting beaches. These requirements fit the WildQuest mission concept. We can define a mission for a beach segment and season. Each observer can record turtle evidence under the same purpose. The team can then reconcile all records after the patrol. Standardization makes the data comparable between dates and locations.

Community participation also has an economic dimension. The plan describes turtle-watching tourism as a conservation strategy that can provide income to communities living around nesting beaches. WildQuest records can support interpretation because they help explain seasonal presence and species status. Sensitive locations remain protected. Tourism access can be managed separately from scientific coordinates. This arrangement allows the community to benefit from the conservation value of the species while reducing pressure on the animal itself.

The hawksbill case demonstrates the importance of time. A forest fungus may be monitored at fixed stations throughout the year. A nesting turtle requires greater attention during reproductive periods. We therefore link the date and mission context closely to each record. A detection outside the expected season can change the next monitoring plan. A threat report during a peak nesting period can require a faster response than the same report at another time. Temporal context is part of conservation priority.

By June 2026, our use of WildQuest in the hawksbill conservation framework had established a clear operational role for the application: record species presence, keep location attached to the evidence, separate threat reporting, support standardized monitoring and protect sensitive coordinates. The conservation response remains community-led and place-specific. The application makes that response easier to organize across multiple coastal sites.

Evidence basis: Environmental Women ORG, Action Plan for the Conservation of the Hawksbill Turtle (Eretmochelys imbricata) on the Colombian Atlantic Coast.

9. Implemented case 4 — Santamartamys rufodorsalis and ecological connectivity in the Sierra Nevada

Figure 14. Santamartamys rufodorsalis, focal species of the Sierra Nevada connectivity case.

Source: Environmental Women ORG project archive.

Spatial metric	Program value
Study landscape	1,500 km².
Existing forest	253.38 km² (17%).
Best conservation suitability	331 km² (21%).
Native forest within most desirable area	66.51 km².
Proposed recovery through connectors	143.76 km².
Planning structure	7 landscape blocks with corridors and buffer zones.

The Santamartamys rufodorsalis case shows how WildQuest observations can feed a landscape-connectivity response. The conservation problem is habitat fragmentation. A species may remain present in isolated forest remnants while movement between those remnants becomes increasingly difficult. The program therefore uses geographic and biological information to identify core habitat, suitability and potential connectors. In the Sierra Nevada de Santa Marta, we apply this logic within a Narakajmanta community conservation context. The field observation gives the connectivity analysis a biological anchor.

The spatial study covers 1,500 square kilometres. Only 253.38 square kilometres, equivalent to 17 percent of the study area, are classified as forest. Pastures occupy 926.31 square kilometres, equivalent to 61 percent. Agroforestry areas account for 334.69 square kilometres, equivalent to 22 percent. This land-cover structure explains the conservation problem. Habitat occurs as fragments inside a larger agricultural and urban matrix. A WildQuest occurrence point is therefore useful because it identifies which fragments are being used by the focal species.

The territorial-suitability analysis combines cover, vegetation characteristics, elevation, water, roads and population density. The final map classifies 331 square kilometres, or 21 percent of the study area, as having the best conditions for conservation. Those areas overlap 66.51 square kilometres of native forest remnants. We use this result to prioritize where an occurrence record has the greatest management significance. A record in high-suitability habitat can reinforce a habitat node. A record in an unexpected area can trigger a review of the model or a new field mission.

Water is an important spatial criterion in the program. The analysis identifies only 196.21 square kilometres, equivalent to 13 percent of the study landscape, with optimal water conditions for the species. Road density is another pressure variable. The area with the lowest road density also represents 13 percent of the landscape. These layers help interpret WildQuest records because the same observation can have different conservation meaning depending on its proximity to water or disturbance. The application provides the point. The GIS model explains the landscape around the point.

The corridor design divides the landscape into seven blocks. The intervention uses ecological corridors and buffer zones to connect forest remnants. Some blocks require relatively small reforestation areas. Others require large restoration investments because the forest matrix is highly fragmented. The design applies buffers around permanent water bodies and around selected corridor routes. This spatial engineering approach is a strong example of how field data can lead to a precise land-management configuration.

The program proposes a total recovery configuration of 143.76 square kilometres through ecological connectors. This figure gives the conservation response a measurable spatial scale. WildQuest can support implementation by turning the proposed connector network into a monitoring mission system. Field teams can record the focal species inside core forest, along restoration areas and near the planned linkages. Repeated observations can then help determine whether the connector is becoming biologically functional.

Threat reporting is also important in this case because accessibility affects habitat pressure. The suitability analysis shows that areas near roads and populated centres have lower viability. A threat record can therefore be read against the same spatial variables used in corridor design. If pressure increases near an important connector, the community can adjust patrol or restoration attention. The data-to-action relationship remains clear: field evidence identifies the pressure, spatial analysis shows its importance and community management assigns the response.

This case also demonstrates why precise species coordinates should be handled carefully. A rare terrestrial mammal can attract unwanted attention if every location is public. The community conservation team can keep exact points in the technical dataset and use generalized locations in external reporting. The same protected-data rule is used in the Tikuna fungus and hawksbill cases. A consistent governance rule therefore travels with the technology even when the species and habitat change.

By June 2026, the Santamartamys case represented our most spatially engineered use of WildQuest-linked information. The application supplied the type of georeferenced evidence that can be integrated with suitability and connectivity analysis. The conservation program translated that evidence into corridor and buffer design at landscape scale. This shows that WildQuest can serve restoration planning as well as species monitoring.

Evidence basis: Environmental Women ORG / Rodríguez, N., Santamartamys rufodorsalis ecological corridors and buffer zones program framework.

10. Cross-case analysis: what changed because the information became actionable

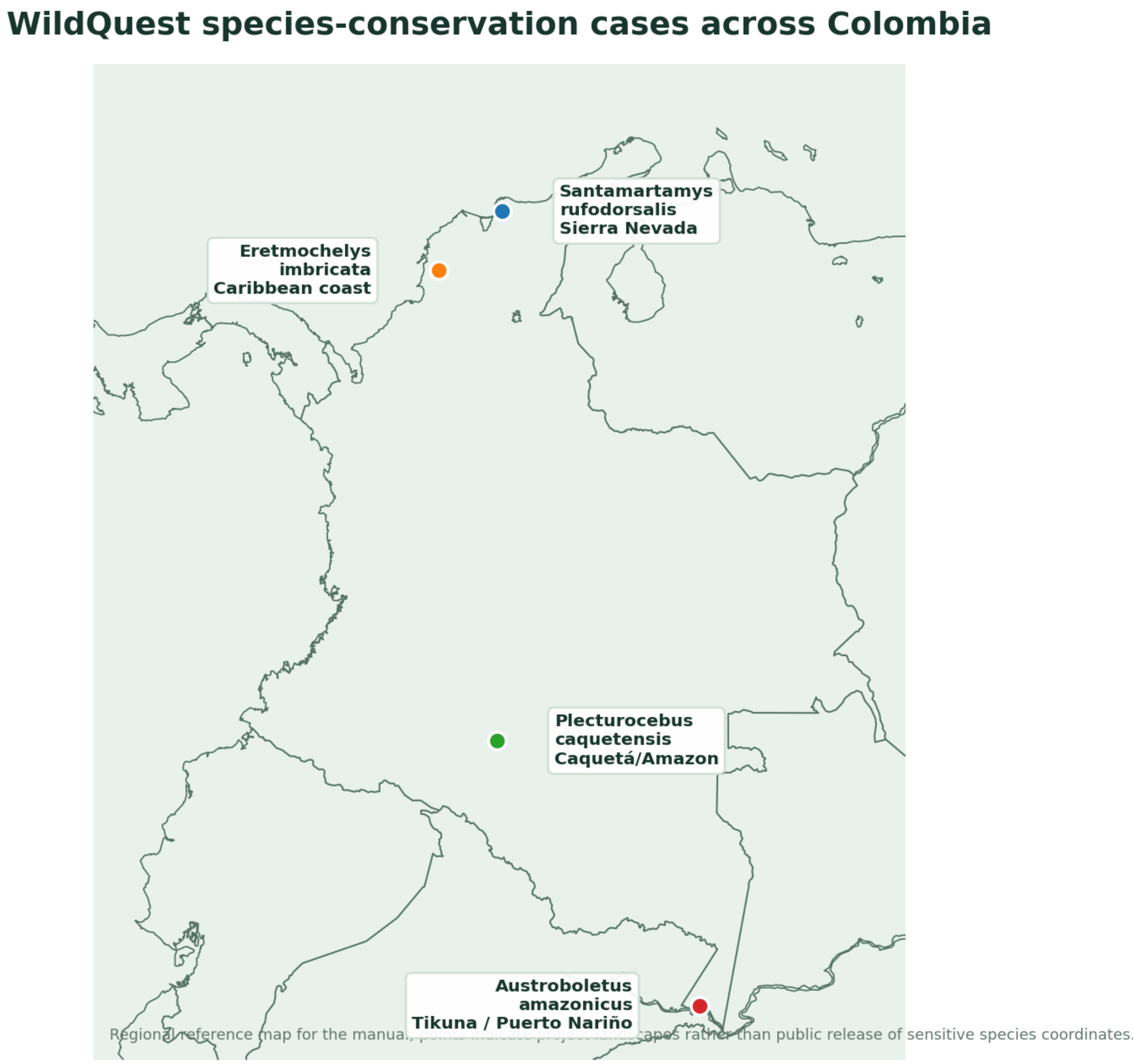

Figure 15. Representative WildQuest-linked species-conservation cases across Colombia.

Source: Environmental Women ORG project archive.

Case	Primary conservation question	WildQuest-linked information role
Austroboletus amazonicus	Is protection and restoration improving conditions for the fungus?	Repeated georeferenced observations linked with monitoring stations and protected zones.
Plecturocebus caquetensis	Which forest fragments remain occupied and should remain protected?	Occurrence records linked with fragment condition, education and habitat protection.

Case	Primary conservation question	WildQuest-linked information role
Eretmochelys imbricata	Where and when do nesting, foraging and direct threats require action?	Time-stamped locations plus separate threat reporting under sensitive-data rules.
Santamartamys rufodorsalis	Which habitat nodes and linkages should guide connectivity restoration?	Occurrence points integrated with GIS suitability and corridor analysis.

The four representative cases share one operational pattern. Each begins with a species whose survival is linked to a place. WildQuest helps the team create a standardized record of that species in that place. The community and technical team then interpret the habitat or threat context. A conservation response follows. The response differs by case because the ecological problem differs. The common element is traceability from observation to decision.

The fungus case is strongest on repeated monitoring. Fixed stations and protected zones create a system in which a new record can be compared with previous detections. The reported 25 percent increase in species presence shows why repeated observations matter. A one-time sighting confirms that the species was there. A monitoring series can show whether protection is associated with improvement. WildQuest is most useful when the field team returns with the same conservation question.

The primate case is strongest on habitat occupancy and social learning. A georeferenced primate record shows which forest fragments remain biologically important. Education results show whether local people can identify the species and understand the threats. The protected-forest result gives the program a management output at landscape level. The application connects these elements by making the species visible in the same places where land-use decisions are being discussed.

The hawksbill case is strongest on time-sensitive threat response. Nesting and foraging locations require seasonal attention. Trafficking and extraction create direct pressure. A georeferenced observation can therefore trigger a different operational response depending on date and site. The monitoring architecture must also protect exact locations. WildQuest contributes value because the record can be both precise for the authorized team and generalized for external communication.

The Santamartamys case is strongest on spatial planning. The program translates habitat and disturbance variables into a suitability map and then into corridors and buffer zones. WildQuest occurrence data can strengthen the biological basis of those maps. The 143.76-square-kilometre recovery configuration gives the response a clear spatial target. This case shows how a mobile observation can eventually influence a landscape-design decision.

The cases also show that conservation technology works best when community institutions remain visible. Tikuna families participate in protection, restoration and livelihood actions. The hawksbill plan relies on local communities and volunteers in monitoring. The primate program links education and community development with habitat protection. The Narakajmanta context gives territorial meaning to the connectivity work. We therefore treat WildQuest as one layer inside a community conservation system. The application increases information quality. Community governance creates the authority to act.

We use a four-level performance framework across the portfolio. The first level is field effort. The second level is data quality. The third level is management response. The fourth level is ecological change. A mature WildQuest-supported program should be able to explain all four. The fungus case already provides examples at each level. The other cases provide strong management and learning evidence. This structure allows the portfolio to improve without forcing identical indicators on species with different ecologies.

We avoid aggregating hectares across the cases because the spatial units represent different conservation mechanisms. A protected fungus zone, a forest fragment, a marine nesting area and a planned ecological connector are not interchangeable. We report each metric in its ecological context. This practice makes the report more precise. It also allows an evaluator to see what the application changed in each management system instead of receiving one large number that hides important differences.

By the June 2026 cut-off, the key change was institutionalization of the observation-to-action cycle. Field teams knew what information to collect. Community authorities knew where the information would be reviewed. Technical staff knew how the record entered monitoring or GIS analysis. Conservation actions had follow-up indicators. This shared process is the main use result of WildQuest across the portfolio.

11. Data governance, sensitive species and Indigenous control of information

Sensitive-species rule

We keep exact coordinates inside the authorized conservation team when public disclosure could increase collection, poaching or disturbance risk. External maps can demonstrate conservation scale with generalized locations.

Species conservation creates a data-protection responsibility. A precise coordinate can be scientifically useful and operationally dangerous at the same time. Critically endangered fungi, turtle nests and rare mammals can attract collectors or traffickers. We therefore classify records according to disclosure risk before they leave the community conservation team. This rule applies even when the species name itself is public. The location receives separate protection.

We keep the exact coordinate when the conservation team needs it for patrol, restoration or repeat monitoring. We create a generalized point or polygon for external maps when precision would increase risk. We can still report the number of protected zones, the area restored or the trend in species presence. This approach preserves accountability without publishing the information that would make the species easier to exploit.

Tikuna knowledge receives an additional layer of governance. A WildQuest observation can be shared through scientific systems. A story, local name, sacred association or culturally restricted place does not automatically enter that same system. The community decides what belongs in the public record. We maintain a parallel mission log for information that supports local interpretation but is not authorized for wider distribution. This practice keeps conservation evidence useful while respecting the boundaries of Indigenous knowledge.

Validation also has a governance function. Expert review controls the scientific identity attached to a record. Community interpretation controls the territorial meaning attached to the record. We keep the two forms of review distinct because they answer different questions. A taxonomist can confirm the species. A knowledge holder can explain whether its presence at that place and season is expected or significant. A strong conservation decision can use both forms of evidence.

We use role-based access inside the conservation process. Field monitors can create records. Validators review species identification. Technical staff can use precise coordinates for authorized analysis. Community authorities decide external sharing. This division limits accidental disclosure and clarifies responsibility. It also reduces the pressure on a single app user to make decisions that belong to the wider conservation governance system.

We also preserve a record of management decisions. If a sensitive observation leads to a new protection rule, the program can document the decision without publishing the exact coordinate. The evidence chain remains auditable through the internal record. External reports can cite the management output and ecological result. This structure is especially useful when a funder or academic evaluator requires evidence but the community has a legitimate reason to restrict location data.

By June 2026, this data-governance approach allowed us to scale the use of WildQuest without weakening community control. The same technical platform can serve several territories because the sharing rules remain local. Standardization occurs at the level of observation quality and monitoring logic. Authority over sensitive knowledge remains with the community.

12. Performance at the June 2026 cut-off and operational lessons

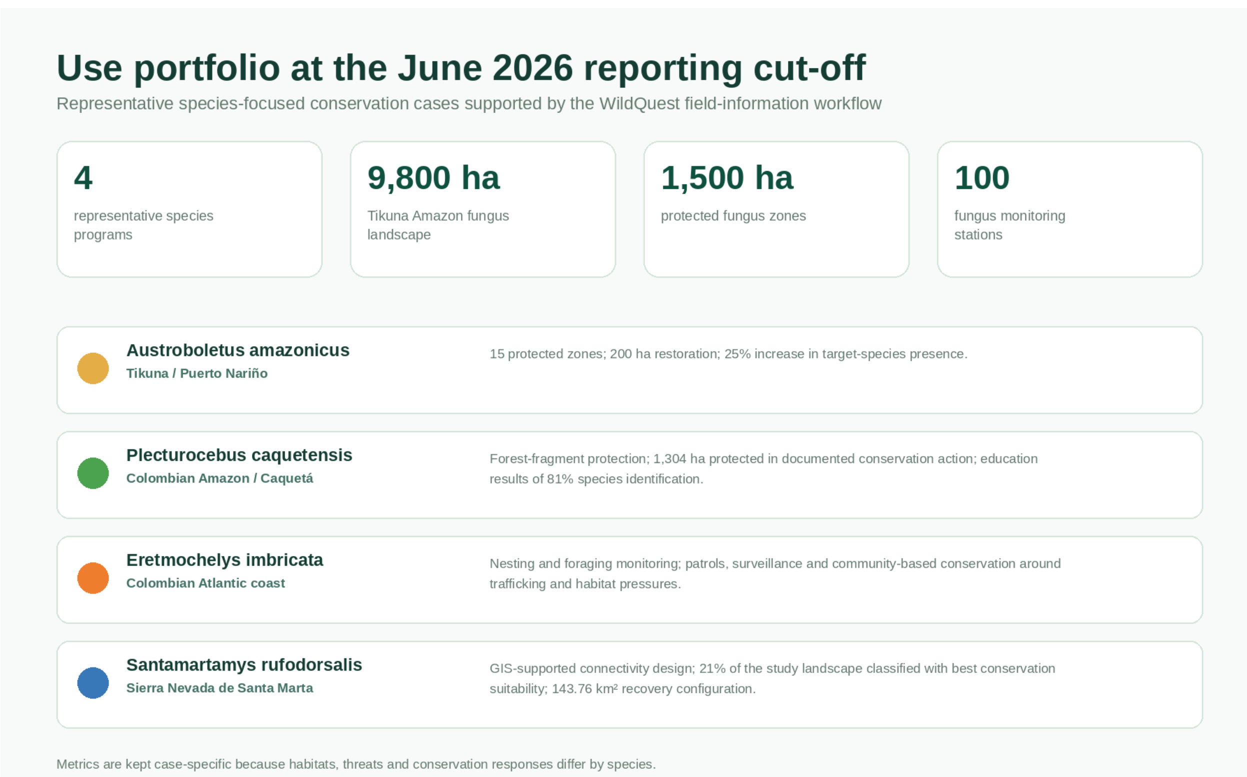

Figure 16. Cross-case performance view at the June 2026 cut-off.

Source: Environmental Women ORG project documents and operational synthesis.

Performance level	What we report	Example from the portfolio
Field effort	Where and how the team monitored.	100 fungus monitoring stations; standardized coastal patrol/monitoring routes.
Data quality	Whether observations can support management.	Georeferenced records, expert validation and mission context.
Management response	What changed in territorial management.	1,500 ha protected fungus zones; 1,304 ha primate forest protection; corridor configuration.
Ecological response	Whether species or habitat condition changed.	25% increase in fungus presence; 30% increase in biodiversity in restored area.

The most important performance finding is that WildQuest use produced value when the field record was tied to a conservation decision. The application made species evidence easier to structure. Community review gave the evidence meaning. GIS and monitoring systems converted it into an intervention. Follow-up produced the result. This chain is visible in the four representative cases. It is strongest where the program already has repeated monitoring and a spatially defined response.

The Austroboletus program demonstrates mature use because the monitoring system measures both pressure and ecological response. The 1,500 hectares of protected zones provide a management scale. The 40 percent decline in harmful activity provides a pressure indicator. The 25 percent increase in fungus presence provides a species indicator. The 200 hectares under restoration provide an intervention scale. This combination allows the WildQuest observation layer to be assessed against ecological change.

The same case shows that conservation data must be accompanied by learning. Knowledge rose from 28 percent to 78 percent. Six hundred eighty people were trained. Ninety percent of Tikuna families participated in at least one conservation activity. These figures indicate that the monitoring system is socially distributed. A digital platform can be maintained more effectively when knowledge of the focal species exists across the community and when several people can recognize the conservation problem.

The primate case shows the importance of connecting field data with education and habitat protection. Species recognition and threat understanding increased among participating students. A documented 1,304 hectares of forest protection gave the conservation message a spatial consequence. The operational lesson is that youth monitoring can be strengthened when field records are linked with school or community education. A student can see the species in the curriculum and then understand why a real forest fragment is being protected.

The hawksbill case shows that monitoring protocols must follow the life cycle of the species. A fixed annual schedule is insufficient when nesting pressure changes seasonally. We therefore organize missions around reproductive and threat windows. Sensitive coordinates receive stronger controls. The lesson is practical: the same application needs different mission timing and data-sharing rules depending on species ecology.

The Santamartamys case shows that mobile observations can support decisions far beyond the point where the animal was seen. A georeferenced record can be combined with forest cover, water and disturbance layers. The result can be a corridor design covering many square kilometres. The lesson is that the application does not need to contain every analytical tool. It needs to produce a reliable observation that can enter a wider GIS workflow.

The Tikuna governance model improved operational clarity. Community authorization reduced ambiguity about why data was being collected. Intergenerational review improved interpretation. Women and youth could occupy defined roles. Sensitive locations had an agreed sharing rule. The lesson is that governance should be designed with the field method. Waiting until after data collection to discuss ownership creates avoidable conflict and weakens conservation trust.

We also learned to keep digital indicators in their proper place. A large number of records can show effort. It does not automatically show conservation impact. We therefore pair WildQuest indicators with management and ecological indicators. A mission count is useful when it explains field coverage. A validated observation count is useful when it supports a decision. The strongest result remains a measurable improvement in species or habitat condition.

By 30 June 2026, the portfolio had reached a stage where the observation method could be replicated without imposing a uniform conservation response. The platform provides a common technical language. Each Indigenous community defines its own governance and conservation priorities. Each species defines the ecological response. This balance between standard data quality and local management adaptation is the main operational lesson from three and a half years of use.

Evidence basis: Cross-case synthesis from the four species conservation documents and Environmental Women ORG WildQuest use record to June 2026.

13. Conclusion and conservation significance

1 January to 30 June/ 2026, we used WildQuest AI as a practical conservation instrument across species and territories. The application helped us create consistent, georeferenced observations. Those observations entered community review and technical analysis. Conservation programs then translated the information into protection, monitoring, restoration, education or threat response. This sequence is now part of our operational method.

The Tikuna adaptation gives the system a clear governance foundation. Community authority defines why a mission occurs. Elders and knowledge holders interpret the territory. Women and youth participate in monitoring and learning. Sensitive information remains under community control. A later field mission returns the result to the same decision space. This structure keeps technology aligned with Indigenous management rather than allowing the device to define the conservation agenda.

The implemented cases demonstrate ecological substance. In the Austroboletus amazonicus program, 15 protected zones cover 1,500 hectares and harmful activities declined by 40 percent. One hundred monitoring stations recorded a 25 percent increase in target-species presence. Restoration covered 200 hectares. Community knowledge rose from 28 percent to 78 percent. These figures show a direct connection between conservation information, territorial action and measurable change.

The wider portfolio shows transferability. Plecturocebus caquetensis work links records with forest-fragment protection and community education. Eretmochelys imbricata work links observations with nesting-area monitoring and direct-threat control. Santamartamys rufodorsalis work links occurrence evidence with corridor and buffer-zone design. The conservation mechanism changes with the ecology of the species. The WildQuest information architecture remains stable enough to support each mechanism.

As of 30 June 2026, we can describe WildQuest use in one causal statement. We observe a species in the field. We retain its location and evidence. We validate the record. The community interprets its meaning. We implement the response required by the habitat or threat. We return to measure change. That cycle is the practical contribution of the application to our Indigenous-led conservation work in Colombia.

Evidence basis: Environmental Women ORG WildQuest use record to June 2026.

References and source basis

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Parques Nacionales Naturales de Colombia. Political agreement of wills with the Indigenous authority of San Martín de Amacayacu. Used for the role of the Cabildo and shared territorial governance in the Tikuna context.

Environmental Women ORG. Conservation Plan for the Amazon Fungus Austroboletus amazonicus in the Colombian Amazon Basin. Used for the 9,800-ha territory, 300 Tikuna families, monitoring design and documented implementation results.

Environmental Women ORG. Conservation Program 2022–2032 of the Caquetá Tití Monkey (Plecturocebus caquetensis) in the Colombian Amazon Basin. Used for species threats, education results and documented forest-protection actions.

Environmental Women ORG. Action Plan for the Conservation of the Hawksbill Turtle (Eretmochelys imbricata) on the Colombian Atlantic Coast. Used for species status, Narakajmanta/coastal context, nesting and foraging monitoring, patrols, surveillance and community conservation measures.

Rodríguez, N. / Environmental Women ORG. Proposal for Ecological Corridors and Buffer Zones as Measures to Restore Connectivity of the Habitat of Santamartamys rufodorsalis in Colombia. Used for landscape metrics, suitability analysis, corridor design and recovery configuration.

Screenshot register

Figure	Interface section	Use in this report
Figure 5	WildQuest landing / field entry	Explains the Explore–Discover–Register–Protect operating sequence.
Figure 6	Features	Documents AI identification, validation, missions, mapping and threat reporting.
Figure 7	How it works	Shows the four public steps used as the field-to-conservation backbone.
Figure 8	Conservation	Shows IUCN status, priority species, validated observations, map layers and iNaturalist connection.